



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/20/2022 4:27:57

MiTek USA, Inc.

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

Re: B210101
104 RR

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: I49387855 thru I49387964

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

Missouri COA: Engineering 001193



December 22, 2021

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.

Job B210101	Truss A1	Truss Type Hip Girder	Qty 1	Ply 1	104 RR	i49387855
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:24 2021 Page 1
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Scale = 1:29.2

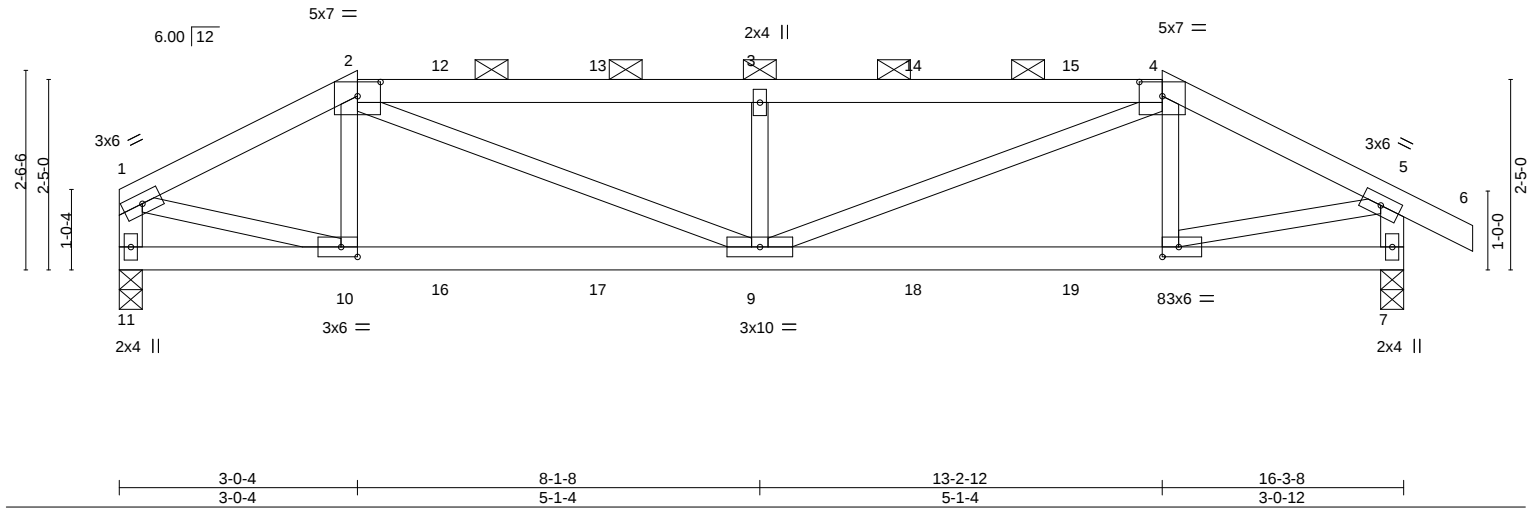


Plate Offsets (X,Y)--		[2:0-3-8,0-2-3], [4:0-3-8,0-2-3], [8:0-2-8,0-1-8], [10:0-2-8,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.08	9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.14	8-9	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07	9	>999	240	Weight: 58 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-5 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 7=0-3-8
Max Horz 11=-58(LC 4)
Max Uplift 11=-207(LC 5), 7=-230(LC 9)
Max Grav 11=1046(LC 1), 7=1120(LC 1)

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

TOP CHORD 1-2=-1429/314, 2-3=-2128/505, 3-4=-2128/505, 4-5=-1436/319, 1-11=-1026/212, 5-7=-1099/235
BOT CHORD 9-10=-284/1256, 8-9=-258/1256
WEBS 2-9=-252/982, 3-9=-581/283, 4-9=-250/977, 1-10=-263/1227, 5-8=-263/1226

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 11 and 230 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 84 lb down and 72 lb up at 4-1-8, 84 lb down and 72 lb up at 6-1-8, 84 lb down and 72 lb up at 8-1-8, and 84 lb down and 72 lb up at 10-1-8, and 84 lb down and 72 lb up at 12-1-8 on top chord, and 157 lb down and 72 lb up at 3-0-4, 31 lb down at 4-1-8, 31 lb down at 6-1-8, 31 lb down at 8-1-8, 31 lb down at 10-1-8, and 31 lb down at 12-1-8, and 157 lb down and 72 lb up at 13-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



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Continued on page 2

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	A1	Hip Girder	1	1		I49387855

Wheeler Lumber,
Waverly, KS - 66871,

8.430 s Aug 16 2021
MiTek Industries, Inc.
Tue Dec 21 15:52:24 2021
Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-6=-70, 7-11=-20

Concentrated Loads (lb)

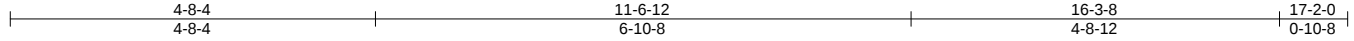
Vert: 10=-157(F) 9=-22(F) 3=-46(F) 8=-157(F) 12=-46(F) 13=-46(F) 14=-46(F) 15=-46(F) 16=-22(F) 17=-22(F) 18=-22(F) 19=-22(F)

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387856
B210101	A2	Hip	1	1		

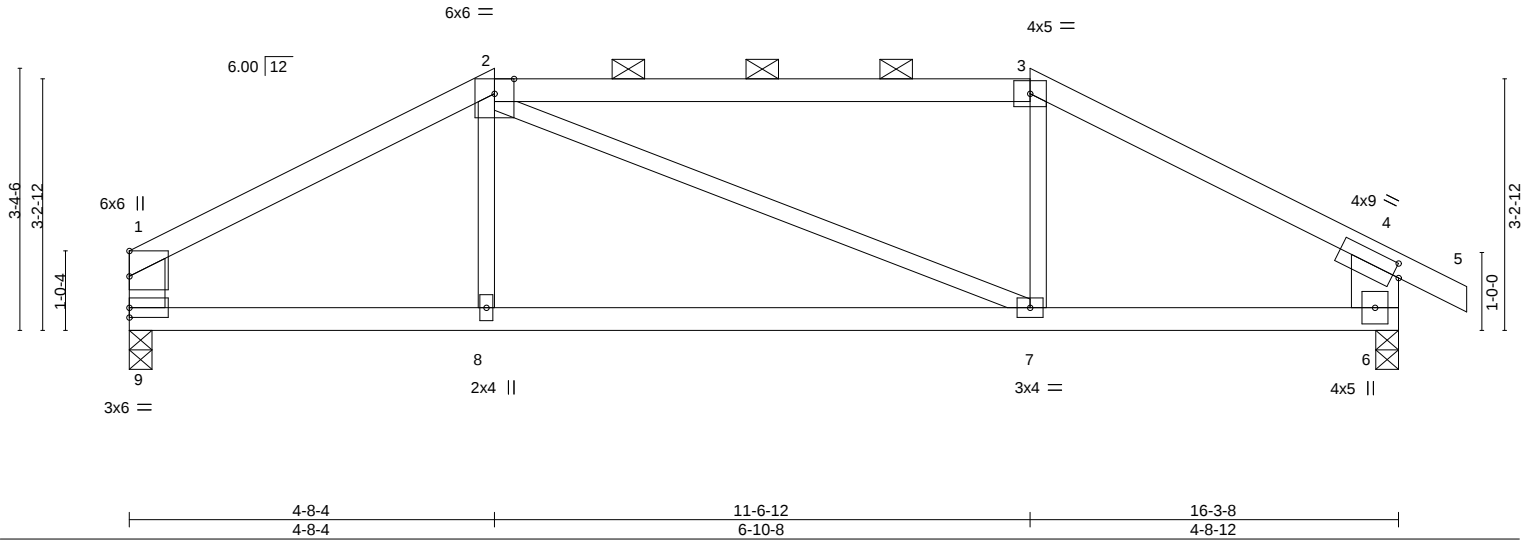
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:25 2021 Page 1

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Scale = 1:29.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.18 7-8 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.39 7-8 >491 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.02 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12 7-8 >999 240	Weight: 54 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-9: 2x6 SPF No.2, 4-6: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 9=0-3-8, 6=0-3-8
 Max Horz 9=-71(LC 4)
 Max Uplift 9=-57(LC 8), 6=-84(LC 9)
 Max Grav 9=706(LC 1), 6=795(LC 1)

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

TOP CHORD 1-2=-948/100, 2-3=-770/113, 3-4=-963/102, 1-9=-582/80, 4-6=-697/109
 BOT CHORD 8-9=-82/771, 7-8=-84/770, 6-7=-48/772

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 9 and 84 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.



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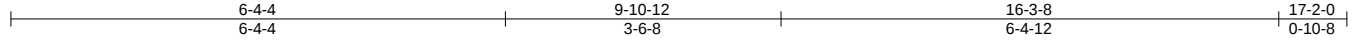
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	A3	Hip	1	1		I49387857

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:26 2021 Page 1

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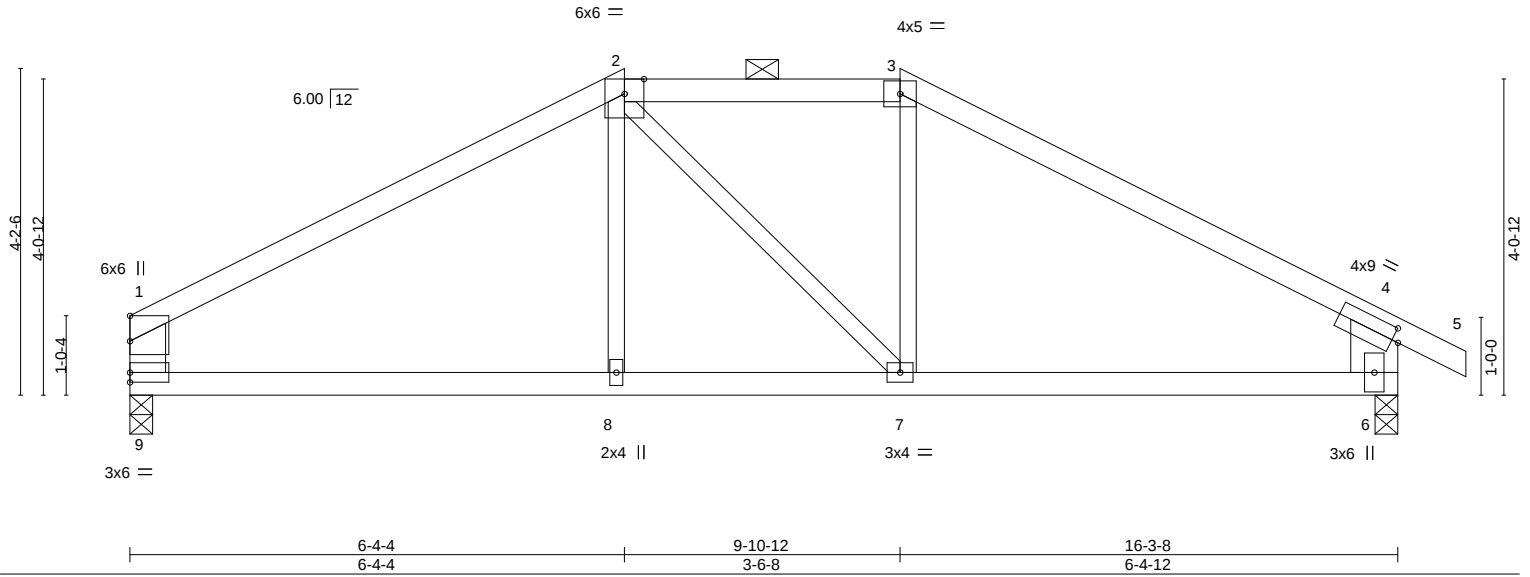


Plate Offsets (X,Y)-- [4:0-1-0-0-2-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	-0.12	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.22	7-8	>878	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	7-8	>999	240	Weight: 53 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-9: 2x6 SPF No.2, 4-6: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=0-3-8, 6=0-3-8
 Max Horz 9=-81(LC 4)
 Max Uplift 9=-74(LC 8), 6=-100(LC 9)
 Max Grav 9=706(LC 1), 6=795(LC 1)

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

TOP CHORD 1-2=-880/82, 2-3=-691/123, 3-4=-897/84, 1-9=-596/116, 4-6=-707/148
 BOT CHORD 8-9=-32/688, 7-8=-33/687, 6-7=0/693

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 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.



December 22, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387858
B210101	A4	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:27 2021 Page 1

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3-4-5	8-0-4	8-2-12	12-10-11	16-3-8	17-2-0
3-4-5	4-7-15	0-2-8	4-7-15	3-4-13	0-10-8

Scale = 1:34.0

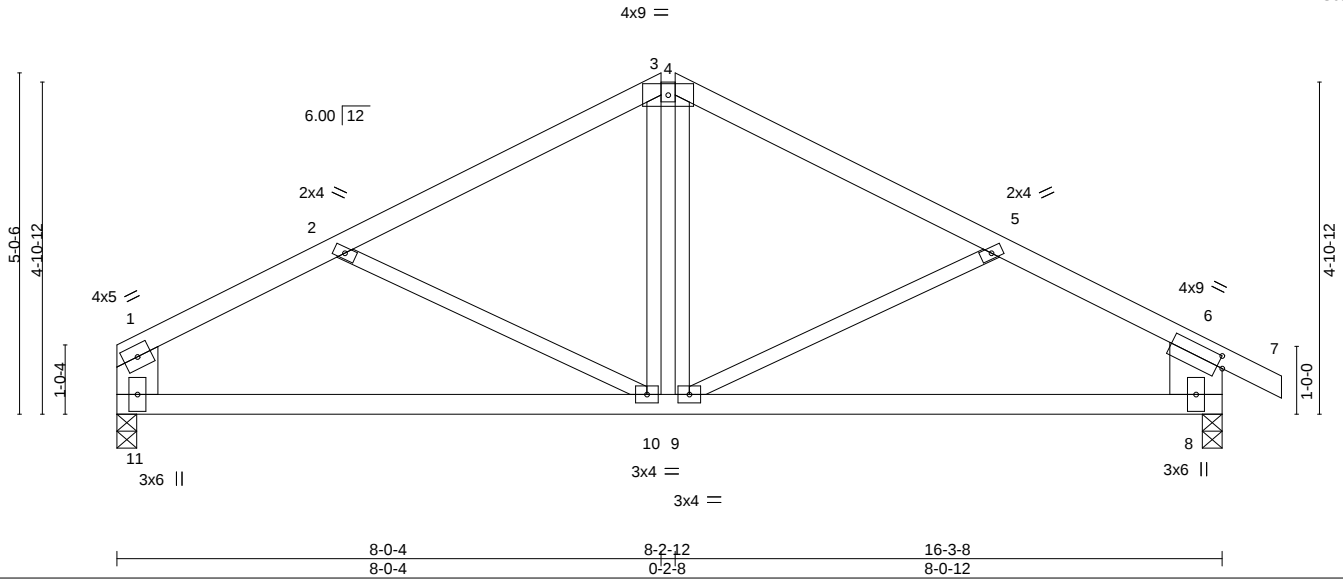


Plate Offsets (X,Y)-- [6:0-1-0-0-2-0]		8-0-4		8-2-12		16-3-8	
		8-0-4		0-2-8		8-0-12	

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 1.00	Vert(LL)	-0.10	10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.17	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.02	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	10	>999	240		
									Weight: 61 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (6-0-0 max.): 3-4.
WEBS	2x3 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	1-11: 2x8 SP DSS, 6-8: 2x10 SP DSS		

REACTIONS. (size) 11=0-3-8, 8=0-3-8
Max Horz 11=-94(LC 4)
Max Uplift 11=-85(LC 8), 8=-114(LC 9)
Max Grav 11=699(LC 1), 8=794(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-877/150, 2-3=-725/105, 3-4=-612/114, 4-5=-729/107, 5-6=-862/148,
1-11=-599/119, 6-8=-703/149
BOT CHORD 10-11=-130/681, 9-10=0/612, 8-9=-79/656

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 85 lb uplift at joint 11 and 114 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.



December 22, 2021

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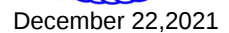
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:28 2021 Page 1
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 -0-10-8 4-4-9 8-1-1 12-0-0
 0-10-8 4-4-9 3-8-7 3-10-15



Job	Truss	Truss Type	Qty	Ply	104 RR	I49387859
B210101	B1	HALF HIP GIRDER	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:28 2021 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-5=-70, 8-9=-20, 6-8=-20

Concentrated Loads (lb)

Vert: 8=-357(F) 7=-42 4=-100(F) 10=-100(F) 11=-100(F) 12=-42 13=-42

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387860
B210101	B2	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:29 2021 Page 1

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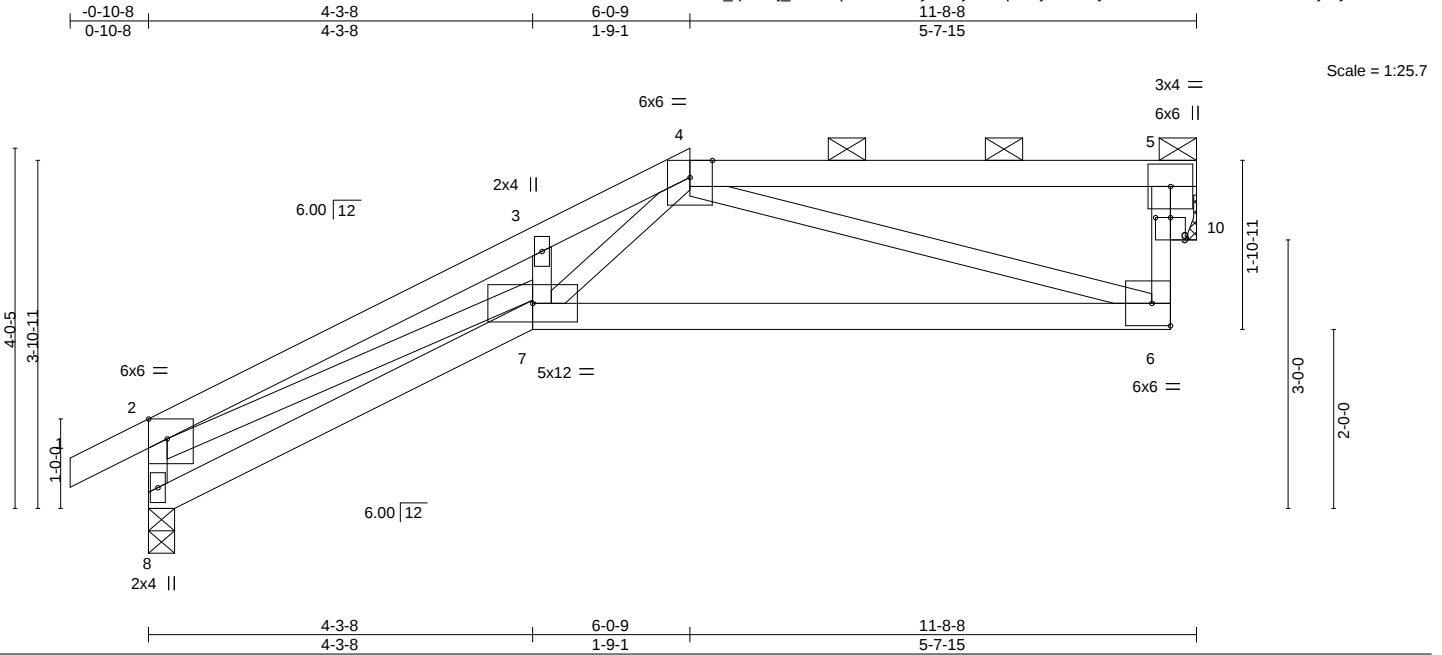


Plate Offsets (X,Y)--		[2:0-2-8,Edge], [9:0-2-0,0-0-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.49		Vert(LL)	-0.11 6-7	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.49		Vert(CT)	-0.24 6-7	>575	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.57		Horz(CT)	0.09 10	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 7	>999	240	Weight: 42 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 10=Mechanical
Max Horz 8=90(LC 5)
Max Uplift 8=-9(LC 8), 10=-26(LC 5)
Max Grav 8=590(LC 1), 10=487(LC 1)

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

TOP CHORD 2-8=-629/73, 2-3=-1835/80, 3-4=-1722/134, 6-9=0/300, 5-9=0/300
BOT CHORD 6-7=-88/898
WEBS 2-7=-9/1441, 4-7=-84/922, 4-6=-730/80, 5-10=-578/38

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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 8 and 26 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387861
B210101	B3	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:30 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-hWVDYhZLokm8555oF_PCxzsZc1f?RfFuir_GV3y6hvV

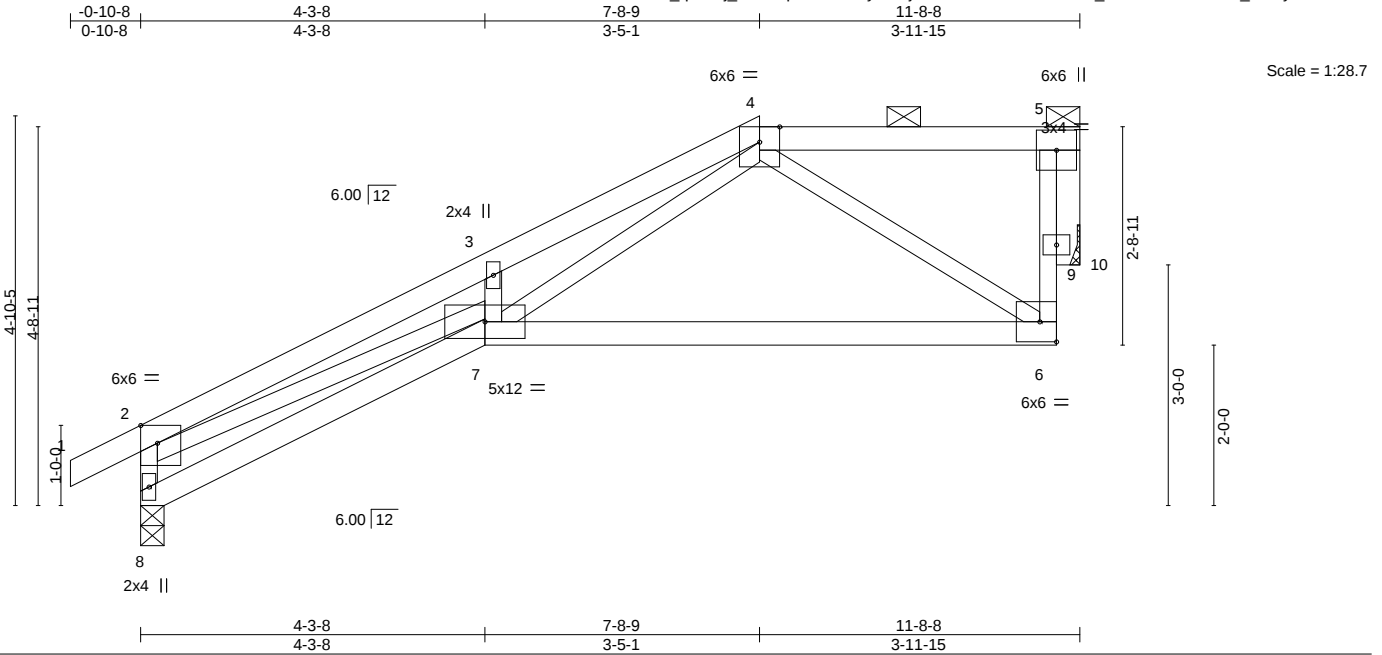


Plate Offsets (X,Y)-- [2:0-2-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.12	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.26	6-7	>530	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.09	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	7	>999	240	Weight: 44 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 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 10=Mechanical
Max Horz 8=108(LC 5)
Max Uplift 8=-8(LC 8), 10=-25(LC 5)
Max Grav 8=590(LC 1), 10=487(LC 1)

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

TOP CHORD 2-8=-626/84, 2-3=-1846/134, 3-4=-1786/202, 6-9=-7/369, 5-9=-7/369
BOT CHORD 6-7=-61/534
WEBS 2-7=-57/1457, 4-7=-159/1300, 4-6=-516/84, 5-10=-502/26

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 8 and 25 lb uplift at joint 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 22,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387862
B210101	B4	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:31 2021 Page 1

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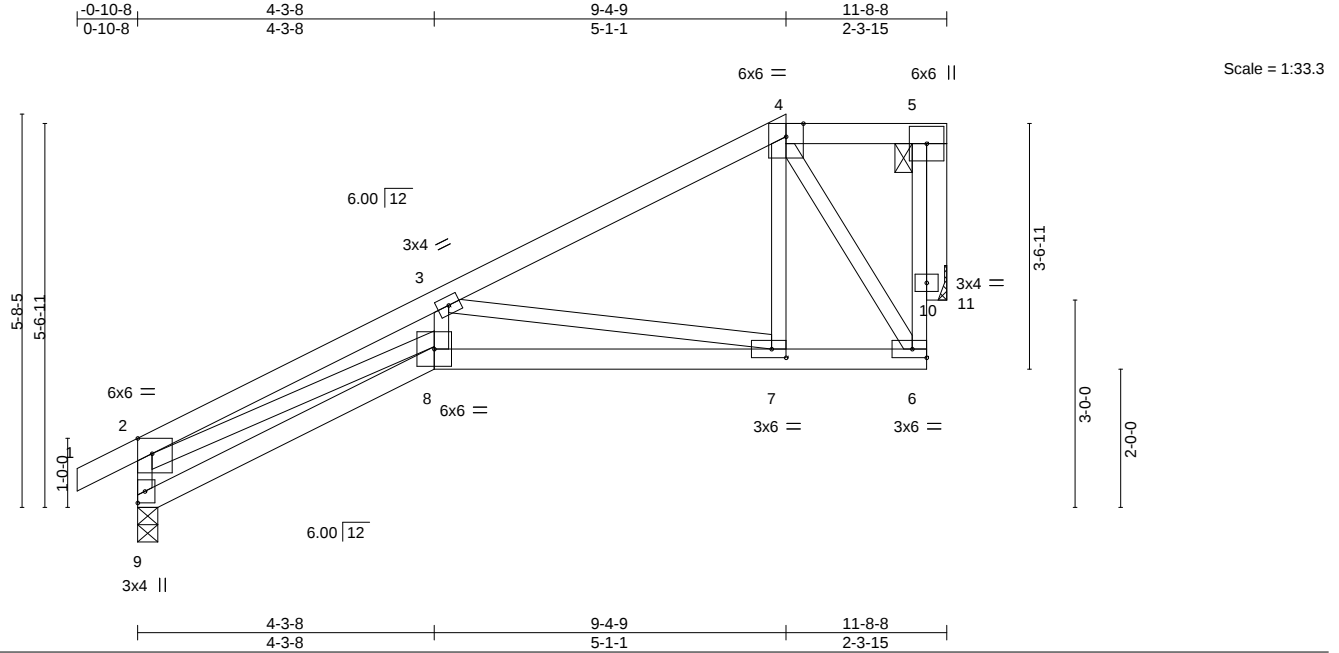


Plate Offsets (X,Y)--		[2:0-2-8,Edge], [7:0-2-8,0-1-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.34		Vert(LL)	-0.11 8	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.49		Vert(CT)	-0.19 8	>731	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.78		Horz(CT)	0.10 11	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 8	>999	240	Weight: 48 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=0-3-8, 11=Mechanical
Max Horz 9=125(LC 5)
Max Uplift 9=-2(LC 8), 11=-38(LC 8)
Max Grav 9=590(LC 1), 11=487(LC 1)

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

TOP CHORD 2-9=-608/89, 2-3=-1900/201, 3-4=-444/13, 6-10=-44/463, 5-10=-44/463
BOT CHORD 7-8=-251/1566, 6-7=-20/322
WEBS 2-8=-128/1536, 3-8=-44/578, 3-7=-1255/236, 4-7=0/335, 4-6=-530/54, 5-11=-492/38

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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 9 and 38 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.



December 22,2021

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

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



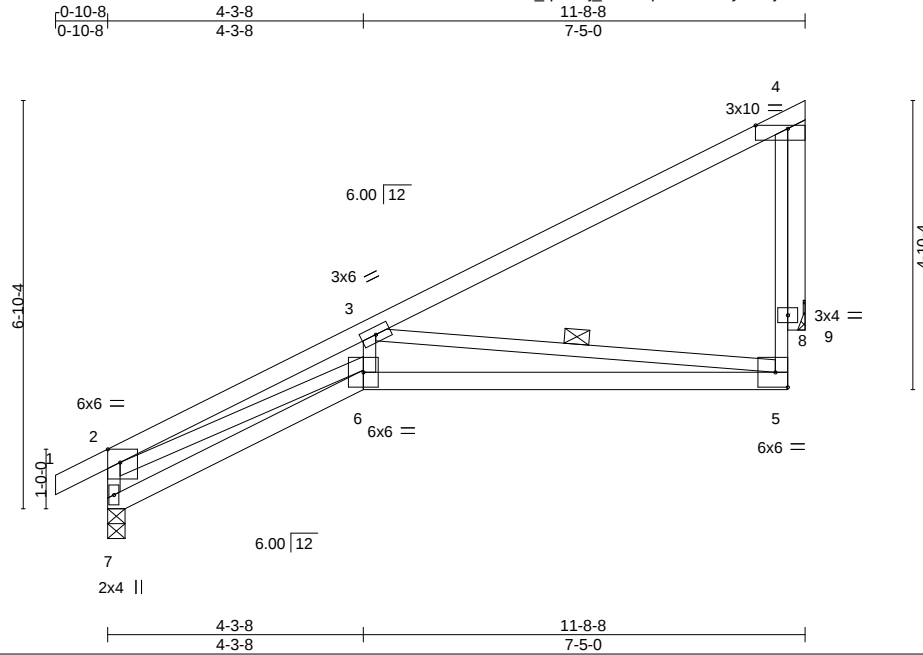
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387864
B210101	B6	Monopitch	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:32 2021 Page 1

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Scale = 1:38.7

Plate Offsets (X,Y)--		[2:0-2-8,Edge], [4:0-6-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.63
TCDL 10.0	Lumber DOL	1.15	BC 0.63
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.14 6 >972 360
			Vert(CT) -0.29 5-6 >471 240
			Horz(CT) 0.13 9 n/a n/a
			Wind(LL) 0.10 6 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 47 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 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 3-5

REACTIONS.

(size) 7=0-3-8, 9=Mechanical
Max Horz 7=151(LC 8)
Max Uplift 9=71(LC 8)
Max Grav 7=590(LC 1), 9=487(LC 1)

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

TOP CHORD 2-7=-595/83, 2-3=-2040/231, 5-8=-2/291, 4-8=-2/291
BOT CHORD 5-6=-313/1697
WEBS 2-6=-169/1715, 3-6=-46/642, 3-5=-1623/314, 4-9=-492/72

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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 71 lb uplift at joint 9.
- 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.



December 22,2021

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

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

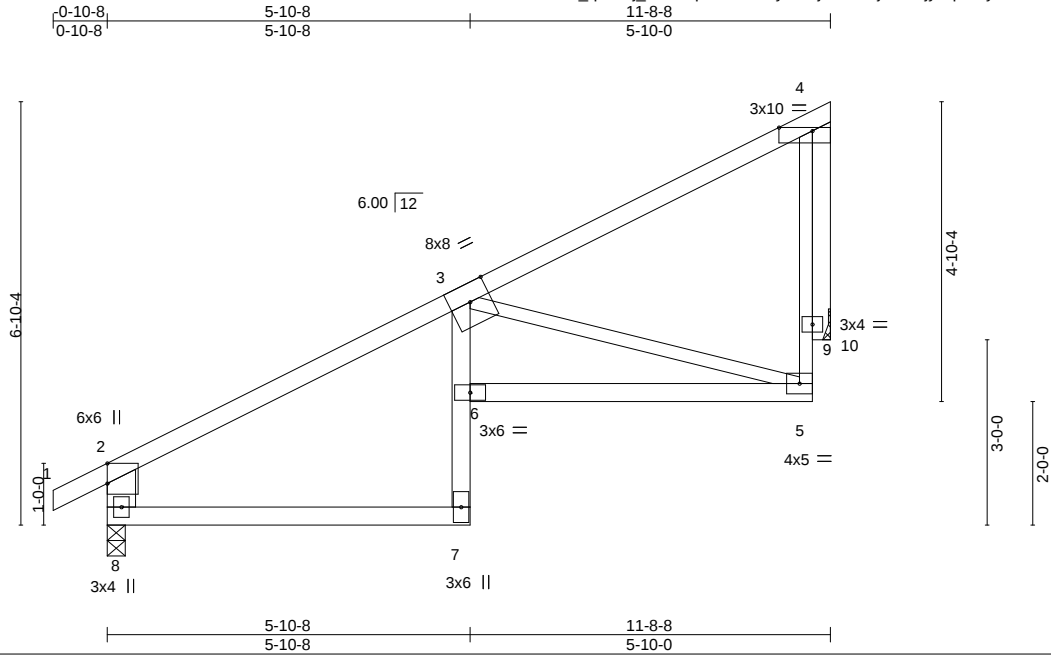


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387865
B210101	B7	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:33 2021 Page 1
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Scale = 1:37.3

Plate Offsets (X,Y)--		[2:0-3-15,Edge], [4:0-6-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.59
TCDL 10.0	Lumber DOL	1.15	BC 0.89
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.81
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.16 7 >858 360
			Vert(CT) -0.28 7 >491 240
			Horz(CT) 0.18 10 n/a n/a
			Wind(LL) 0.11 7 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 46 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-7: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-8: 2x6 SPF No.2
OTHERS 2x4 SPF No.2

REACTIONS.

(size) 8=0-3-8, 10=Mechanical
Max Horz 8=151(LC 8)
Max Uplift 10=-70(LC 8)
Max Grav 8=594(LC 1), 10=480(LC 1)

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

TOP CHORD 2-3=-590/0, 5-9=-20/338, 4-9=-20/338, 2-8=-552/38
BOT CHORD 7-8=-84/422, 5-6=-166/1008
WEBS 3-5=-979/176, 4-10=-484/71

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); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 10.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 22, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387866
B210101	C1	Common Supported Gable	1	1	Job Reference (optional)	

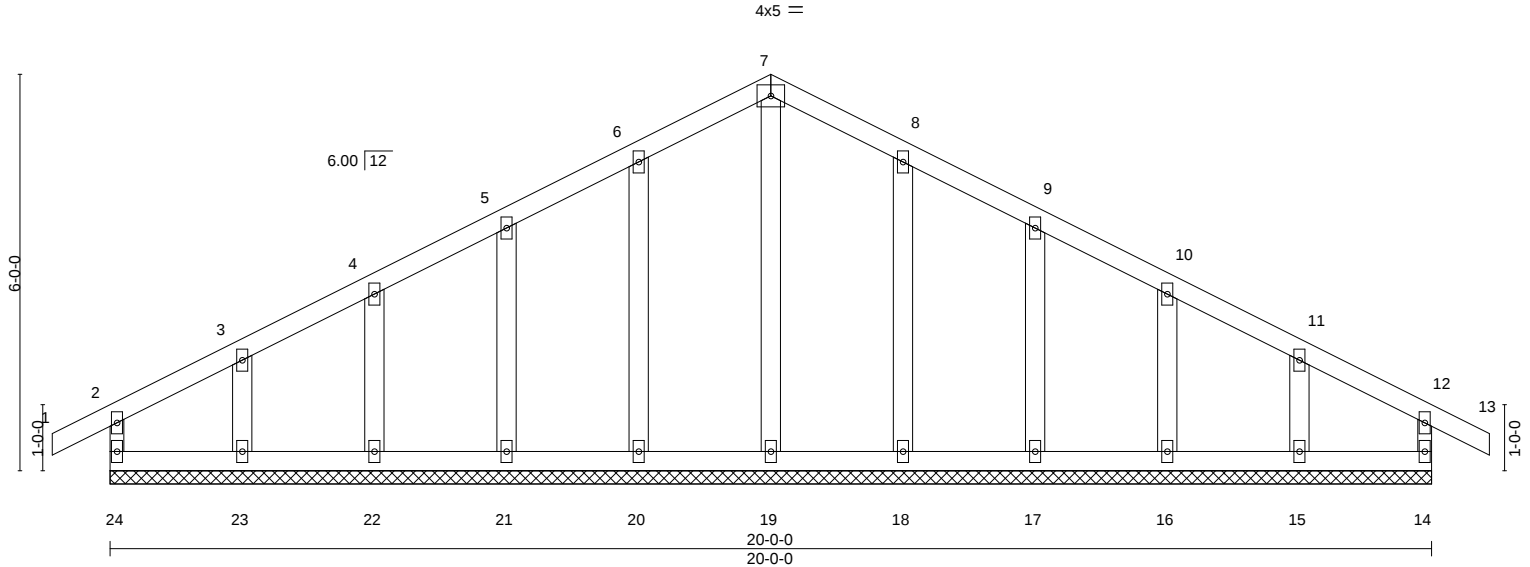
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:34 2021 Page 1

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

Scale = 1:34.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.07	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.03	Vert(LL) -0.00 13 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.00 13 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 14 n/a n/a		
	Code IRC2018/TPI2014			Weight: 85 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 20-0-0.
(lb) - Max Horz 24=98(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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

NOTES-

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



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	C2	Common	1	1		I49387867

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:35 2021 Page 1

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0-10-8	4-7-8	10-0-0	15-4-9	20-0-0	20-10-8
0-10-8	4-7-8	5-4-9	5-4-9	4-7-8	0-10-8

Scale = 1:38.0

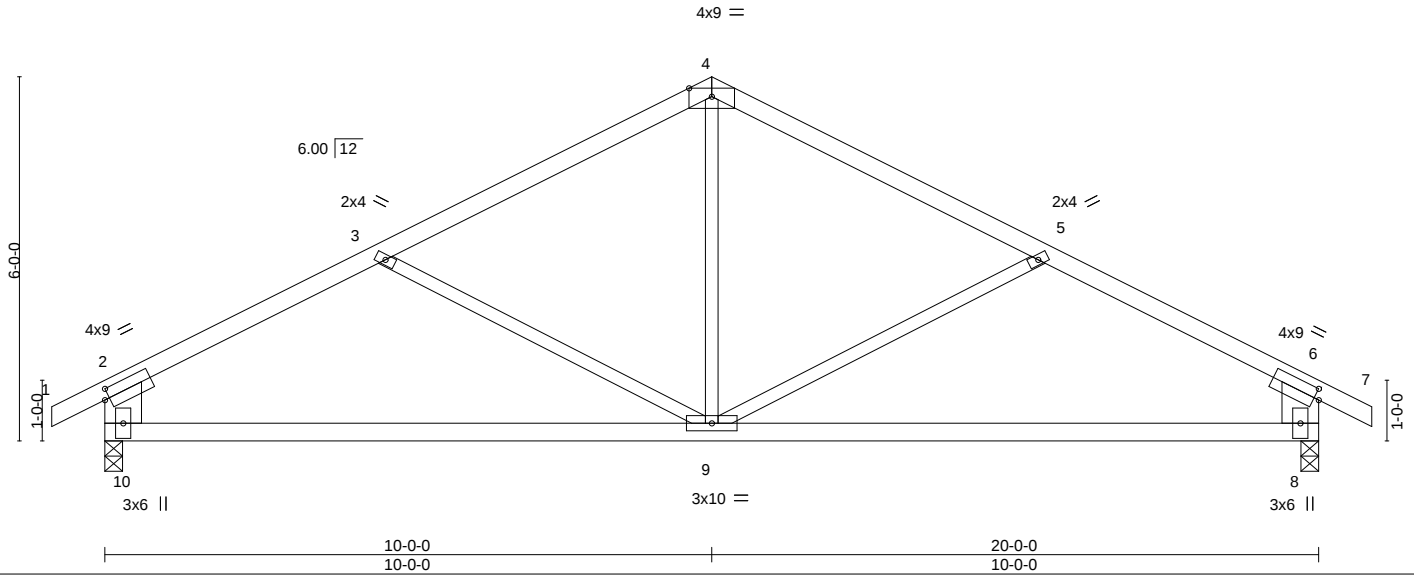


Plate Offsets (X,Y)-- [2:0-1-0,0-2-0], [6:0-1-0,0-2-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.86	Vert(LL)	-0.17	9-10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.36	9-10	>647	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.03	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	9	>999	240	Weight: 69 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,6-8: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 10=0-3-8, 8=0-3-8
Max Horz 10=102(LC 7)
Max Uplift 10=-134(LC 8), 8=-134(LC 9)
Max Grav 10=955(LC 1), 8=955(LC 1)

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

TOP CHORD 2-3=-1166/193, 3-4=-929/133, 4-5=-929/133, 5-6=-1166/193, 2-10=-851/182,
6-8=-851/182
BOT CHORD 9-10=-172/920, 8-9=-105/920
WEBS 4-9=0/415

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=134, 8=134.
- 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.



December 22,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B210101	Truss C3	Truss Type Common	Qty 4	Ply 1	104 RR	i49387868
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:36 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-WfsUpke6OaWHp0YycFWcAE6SvSfWrRGn4nRajiy6hvP

4-4-6	9-8-14	15-1-7	19-8-14	20-7-6
4-4-6	5-4-9	5-4-9	4-7-7	0-10-8

Scale = 1:37.7

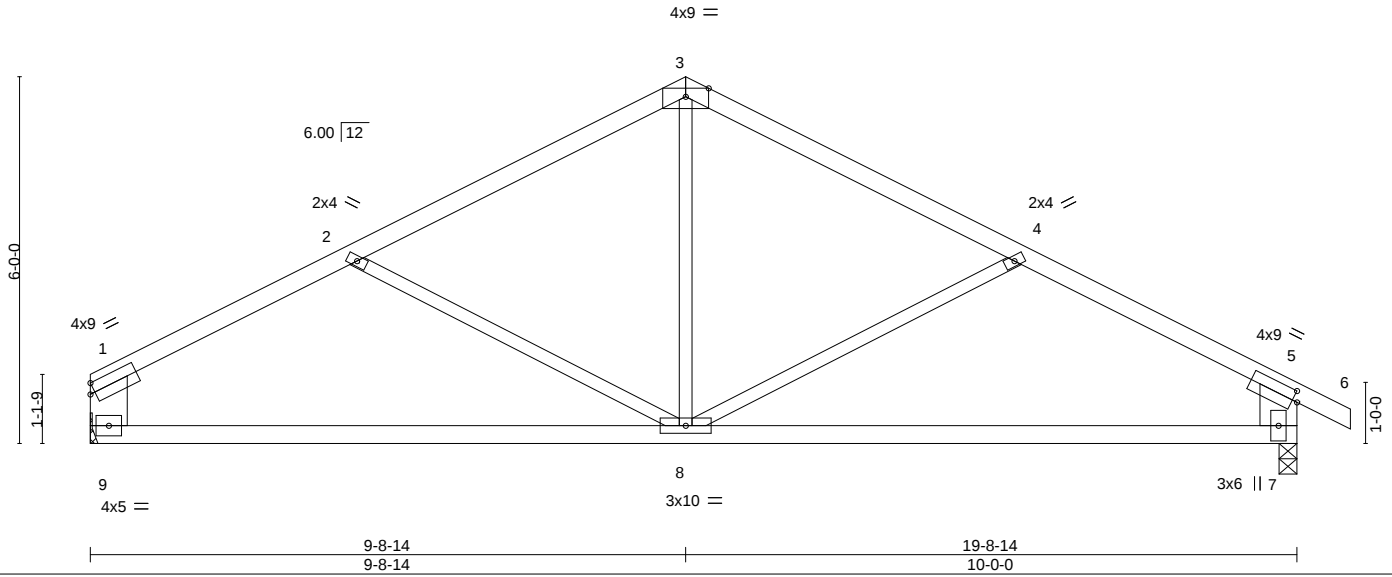


Plate Offsets (X,Y)-- [5:0-1-0-0-2-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.84	Vert(LL)	-0.18	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.40	7-8	>572	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.03	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11	7-8	>999	240	Weight: 68 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-9,5-7: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 9=Mechanical, 7=0-3-8
Max Horz 9=-110(LC 4)
Max Uplift 9=-104(LC 8), 7=-133(LC 9)
Max Grav 9=859(LC 1), 7=946(LC 1)

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

TOP CHORD 1-2=-1108/183, 2-3=-902/131, 3-4=-907/130, 4-5=-1147/192, 1-9=-747/148,
5-7=-838/181
BOT CHORD 8-9=-160/866, 7-8=-104/905
WEBS 3-8=0/393

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=104, 7=133.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 22,2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	C4	Monopitch	1	1		I49387869

Wheeler Lumber, Waverly, KS - 66871,

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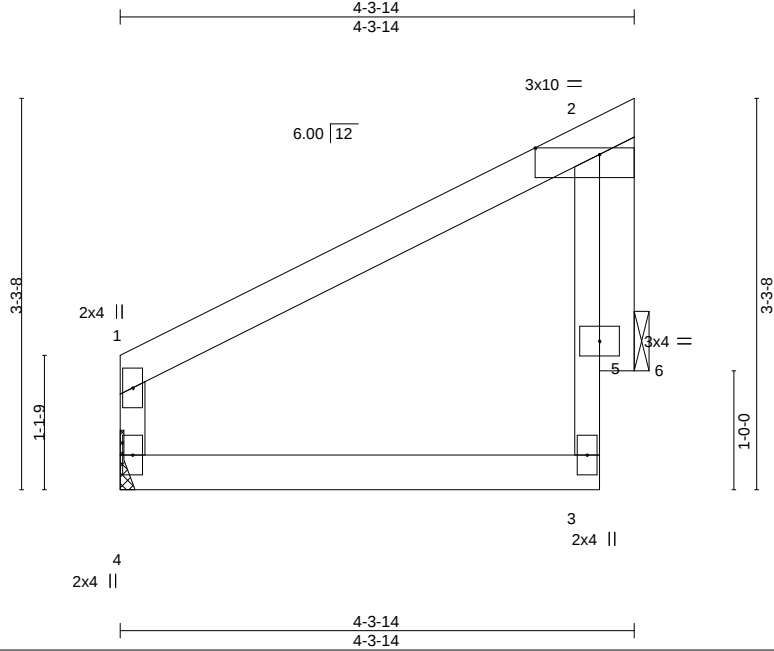


Plate Offsets (X,Y)--		[2:0-6-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.01 3-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01 3-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.00 6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00 3-4	>999	240	Weight: 15 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 4-3-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 6=Mechanical
Max Horz 4=81(LC 5)
Max Uplift 4=-3(LC 8), 6=-61(LC 8)
Max Grav 4=186(LC 1), 6=158(LC 1)

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

NOTES-

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



December 22,2021

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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	104 RR	i49387870
B210101	C5	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:37 2021 Page 1
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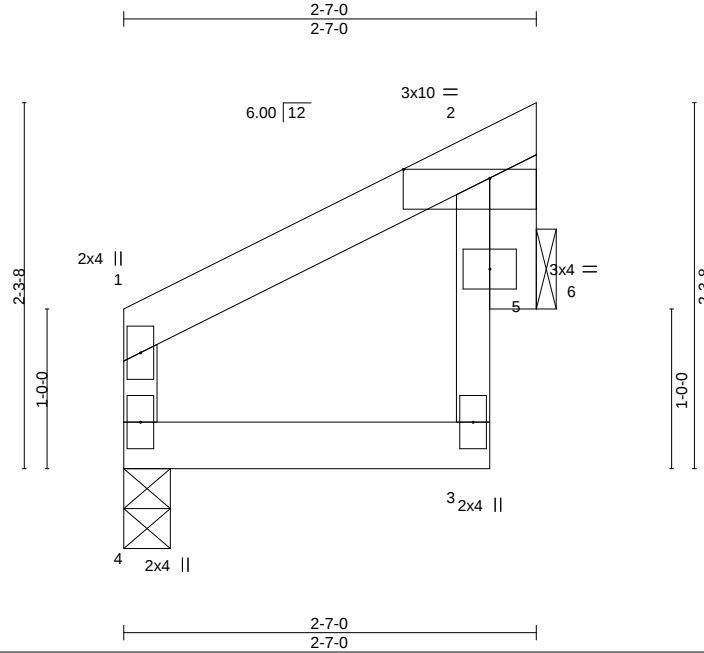


Plate Offsets (X,Y)-- [2:0-6-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	4	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	3	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	4	>999	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=0-3-8, 6=Mechanical
Max Horz 4=56(LC 5)
Max Uplift 4=2(LC 8), 6=33(LC 8)
Max Grav 4=107(LC 1), 6=81(LC 1)

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

NOTES-

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



December 22, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B210101	Truss D1	Truss Type Hip Girder	Qty 1	Ply 2	104 RR Job Reference (optional)	I49387871
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:41 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHSj-tdfNsSiED78avoRwPo6ntIqLVTKwWdYWD28LOWy6hvK

0-10-8 3-6-0 5-0-0 9-2-0 13-4-0 18-10-4 26-9-0 34-6-0 39-6-0 40-4-8
0-10-8 3-6-0 1-6-0 4-2-0 4-2-0 5-6-4 7-10-12 7-9-0 5-0-0 0-10-8

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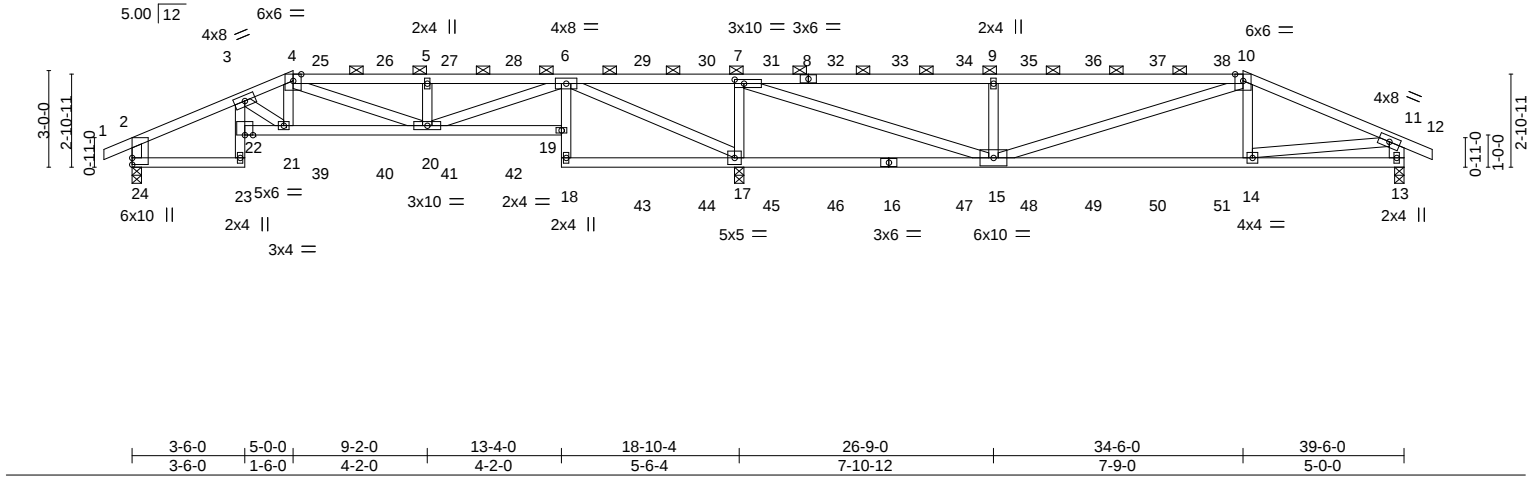


Plate Offsets (X,Y)-- [7:0-3-8,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.10 20-21 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Horz(CT)	-0.17 20-21 >999	240	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.46	Horz(CT)	0.08 17 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09 20-21 >999	240	Weight: 302 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
11-13: 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 (6-0-0 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 24=0-3-8, 17=0-3-8, 13=0-3-8
Max Horz 24=21(LC 28)
Max Uplift 24=-245(LC 4), 17=-938(LC 5), 13=-241(LC 9)
Max Grav 24=929(LC 21), 17=3309(LC 1), 13=1061(LC 22)

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

TOP CHORD 2-3=-1169/335, 3-4=-2076/651, 4-5=-1751/616, 5-6=-1749/614, 6-7=-724/2514,
7-9=-1150/266, 9-10=-1152/267, 10-11=-1646/363, 2-24=-858/253, 11-13=-1034/254
BOT CHORD 23-24=-249/939, 21-22=-484/1851, 20-21=-542/1911, 15-17=-2514/789, 14-15=-298/1458
WEBS 4-21=-180/518, 5-20=-330/114, 6-20=-588/1867, 6-17=-2734/851, 7-17=-1861/682,
7-15=-1038/3778, 9-15=-819/441, 10-15=-375/111, 10-14=0/322, 11-14=-282/1324

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 24=245, 17=938, 13=241.
- 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.



December 22, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR
B210101	D1	Hip Girder	1	2	

I49387871

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:41 2021 Page 2
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NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 62 lb down and 19 lb up at 5-9-0, 63 lb down and 19 lb up at 7-9-0, 63 lb down and 19 lb up at 9-9-0, 63 lb down and 19 lb up at 11-9-0, 89 lb down and 82 lb up at 13-9-0, 89 lb down and 82 lb up at 15-9-0, 89 lb down and 82 lb up at 17-9-0, 89 lb down and 82 lb up at 19-9-0, 89 lb down and 82 lb up at 21-9-0, 89 lb down and 82 lb up at 23-9-0, 89 lb down and 82 lb up at 25-9-0, 89 lb down and 82 lb up at 27-9-0, 89 lb down and 82 lb up at 29-9-0, and 89 lb down and 82 lb up at 31-9-0, and 87 lb down and 82 lb up at 33-9-0 on top chord, and 222 lb down and 103 lb up at 5-0-0, 80 lb down and 75 lb up at 5-9-0, 80 lb down and 75 lb up at 7-9-0, 80 lb down and 75 lb up at 9-9-0, 80 lb down and 75 lb up at 11-9-0, 34 lb down at 13-5-12, 34 lb down at 15-9-0, 34 lb down at 17-9-0, 34 lb down at 19-9-0, 34 lb down at 21-9-0, 34 lb down at 23-9-0, 34 lb down at 25-9-0, 34 lb down at 27-9-0, 34 lb down at 29-9-0, 34 lb down at 31-9-0, and 34 lb down at 33-9-0, and 222 lb down and 101 lb up at 34-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 4-10=-70, 10-11=-70, 11-12=-70, 23-24=-20, 19-22=-20, 13-18=-20

Concentrated Loads (lb)

Vert: 19=-23(F) 6=-51(F) 16=-23(F) 21=-222(F) 14=-222(F) 25=-9(F) 26=-9(F) 27=-9(F) 28=-9(F) 29=-51(F) 30=-51(F) 31=-51(F) 32=-51(F) 33=-51(F) 34=-51(F) 35=-51(F) 36=-51(F) 37=-51(F) 38=-51(F) 39=-80(F) 40=-80(F) 41=-80(F) 42=-80(F) 43=-23(F) 44=-23(F) 45=-23(F) 46=-23(F) 47=-23(F) 48=-23(F) 49=-23(F) 50=-23(F) 51=-23(F)

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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	104 RR	i49387872
B210101	D2	Hip	1	1		

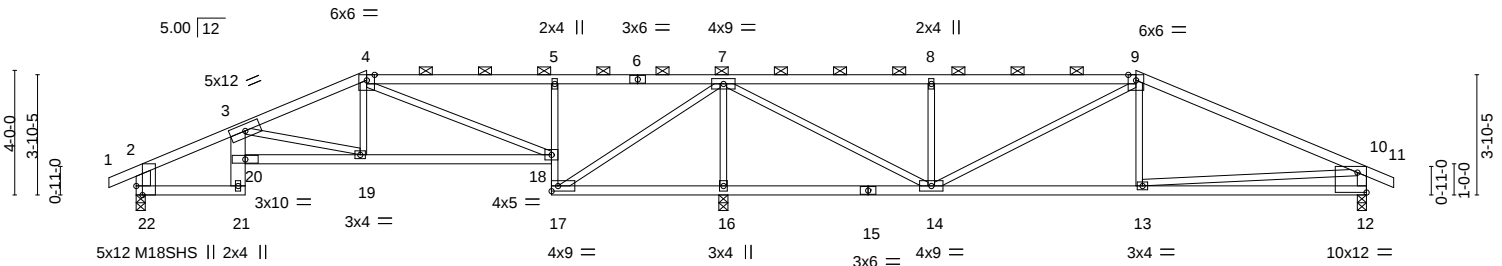
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:42 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHSj-LpDI3ojt_QHRXx06yWd0QVMXBtkcF_sfSiuvvNy6hvJ

0-10-8 3-6-0 7-4-13 13-4-0 18-10-4 19-7-1 25-6-6 32-1-3 39-6-0 40-4-8
0-10-8 3-6-0 3-10-13 5-11-3 5-6-4 0-8-13 5-11-5 6-6-14 7-4-13 0-10-8

Scale = 1:74.0



	3-6-0	7-4-13	13-4-0	18-10-4	25-6-6	32-1-3	39-6-0
	3-6-0	3-10-13	5-11-3	5-6-4	6-8-2	6-6-14	7-4-13
Plate Offsets (X,Y)--	[12:Edge,0-7-11], [22:0-3-8,Edge]						

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.09 19-20	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.16 18-19	>999	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.07 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06 19-20	>999	240	Weight: 142 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-21: 2x6 SPF No.2, 5-17: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-22: 2x6 SPF No.2, 10-12: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-7 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD Rigid ceiling directly applied or 5-2-3 oc bracing.

REACTIONS.

(size) 22=0-3-8, 16=0-3-8, 12=0-3-8
Max Horz 22=-36(LC 13)
Max Uplift 22=-113(LC 8), 16=-350(LC 5), 12=-134(LC 9)
Max Grav 22=671(LC 21), 16=2230(LC 1), 12=798(LC 22)

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

TOP CHORD 2-3=-726/118, 3-4=-900/136, 7-8=-486/155, 8-9=-489/157, 9-10=-1029/149,
2-22=-590/127, 10-12=-731/173
BOT CHORD 21-22=-102/573, 19-20=-250/1387, 18-19=-44/779, 17-18=-774/154, 5-18=-414/173,
16-17=-1196/186, 14-16=-1196/186, 13-14=-72/851, 12-13=-191/526
WEBS 3-19=-615/213, 4-19=0/337, 4-18=-772/61, 7-17=-230/1472, 7-16=-2082/426,
7-14=-277/1786, 8-14=-507/207, 9-14=-477/20, 9-13=0/269, 10-13=0/365

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 22=113, 16=350, 12=134.
- 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.



December 22,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387873
B210101	D3	HIP	1	1		

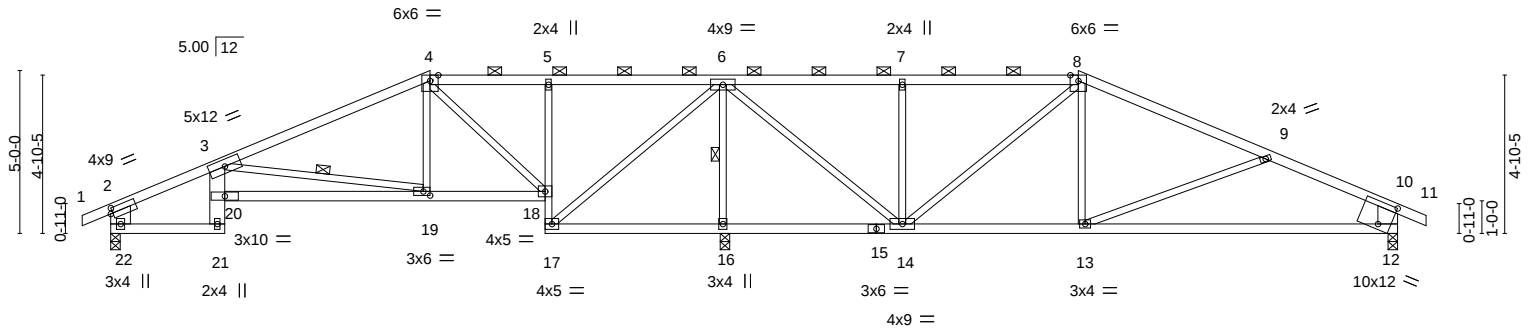
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:43 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-p0n7H8jVlkPI85bIWD8FyjviXH3c_SMphMdSSpy6hvl

0-10-8 3-6-0 9-9-10 13-4-0 18-9-7 24-3-9 29-8-6 35-5-6 39-6-0 40-4-8
0-10-8 3-6-0 6-3-10 3-6-6 5-5-7 5-6-1 5-4-13 5-8-15 4-0-10 0-10-8

Scale = 1:70.7



	3-6-0	9-9-10	13-4-0	18-10-4	24-3-9	29-8-6	39-6-0
	3-6-0	6-3-10	3-6-6	5-6-4	5-5-5	5-4-13	9-9-10
Plate Offsets (X,Y)--	[2:0-0-13,0-2-0], [12:0-4-8,0-8-1], [19:0-2-8,0-1-8]						

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.19 12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.39 12-13	>623	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.06 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 19-20	>999	240	Weight: 149 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF 2100F 1.8E *Except* 4-8: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-9-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-8.
BOT CHORD 2x4 SPF No.2 *Except* 3-21: 2x6 SP DSS, 5-17: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 5-4-1 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-22,10-12: 2x8 SP DSS	WEBS 1 Row at midpt 3-19, 6-16

REACTIONS. (size) 22=0-3-8, 16=0-3-8 (req. 0-3-9), 12=0-3-8
Max Horz 22=52(LC 12)
Max Uplift 22=-123(LC 8), 16=-318(LC 5), 12=-155(LC 9)
Max Grav 22=664(LC 21), 16=2269(LC 1), 12=803(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-695/128, 3-4=-576/99, 8-9=-750/153, 9-10=-1027/257, 2-22=-587/134, 10-12=-703/205
BOT CHORD 21-22=-127/543, 19-20=-368/1537, 18-19=-15/439, 17-18=-794/135, 5-18=-323/132, 16-17=-1044/159, 14-16=-1044/159, 13-14=-14/638, 12-13=-180/854
WEBS 3-19=-1102/358, 4-19=0/349, 4-18=-664/83, 6-17=-163/1268, 6-16=-2121/388, 6-14=-197/1401, 7-14=-399/164, 8-14=-663/28, 8-13=0/360, 9-13=-255/178

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - WARNING: Required bearing size at joint(s) 16 greater than input bearing size.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 22=123, 16=318, 12=155.
 - 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.



December 22,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387874
B210101	D4	Monopitch Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:44 2021 Page 1

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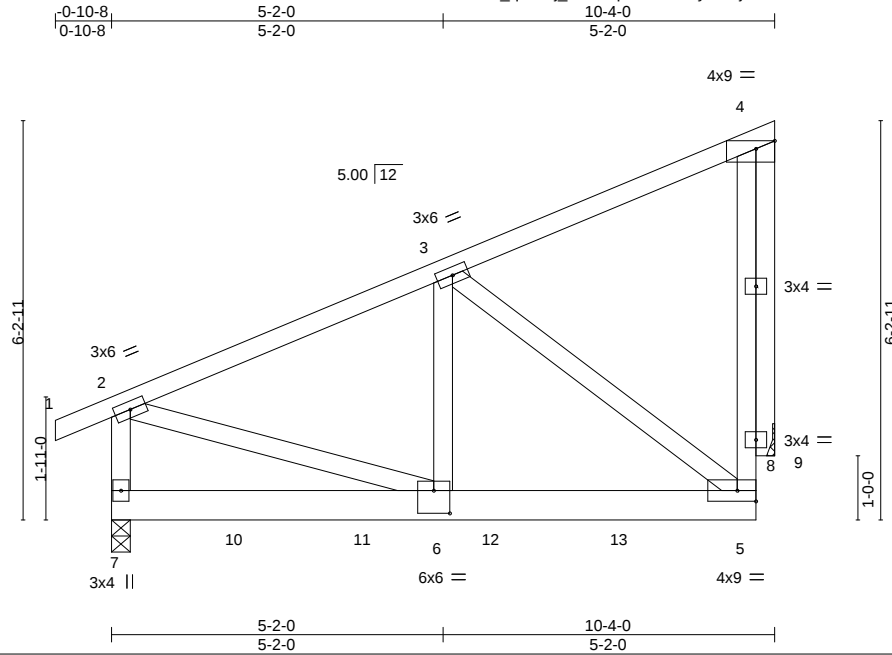


Plate Offsets (X,Y)-- [4:Edge,0-1-8], [6:0-3-0,0-4-4]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.43	Vert(LL)	-0.03	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.05	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.33	Horz(CT)	-0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	6-7	>999	240	Weight: 133 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E
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.

(size) 7=0-3-8, 9=Mechanical
Max Horz 7=166(LC 5)
Max Uplift 7=295(LC 8), 9=366(LC 8)
Max Grav 7=2303(LC 1), 9=2175(LC 1)

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

TOP CHORD 2-3=2265/268, 3-4=270/15, 5-8=307/2101, 4-8=307/2101, 2-7=1671/237
BOT CHORD 5-6=346/2027
WEBS 3-6=212/1850, 3-5=2334/416, 2-6=157/1905, 4-9=2182/367

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=295, 9=366.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 839 lb down and 124 lb up at 1-11-4, 839 lb down and 124 lb up at 3-11-4, 839 lb down and 124 lb up at 5-11-4, and 839 lb down and 124 lb up at 7-11-4, and 175 lb down and 14 lb up at 9-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



December 22,2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	D4	Monopitch Girder	1	2		I49387874

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:44 2021 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 5=-175(F) 10=-839(F) 11=-839(F) 12=-839(F) 13=-839(F)

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

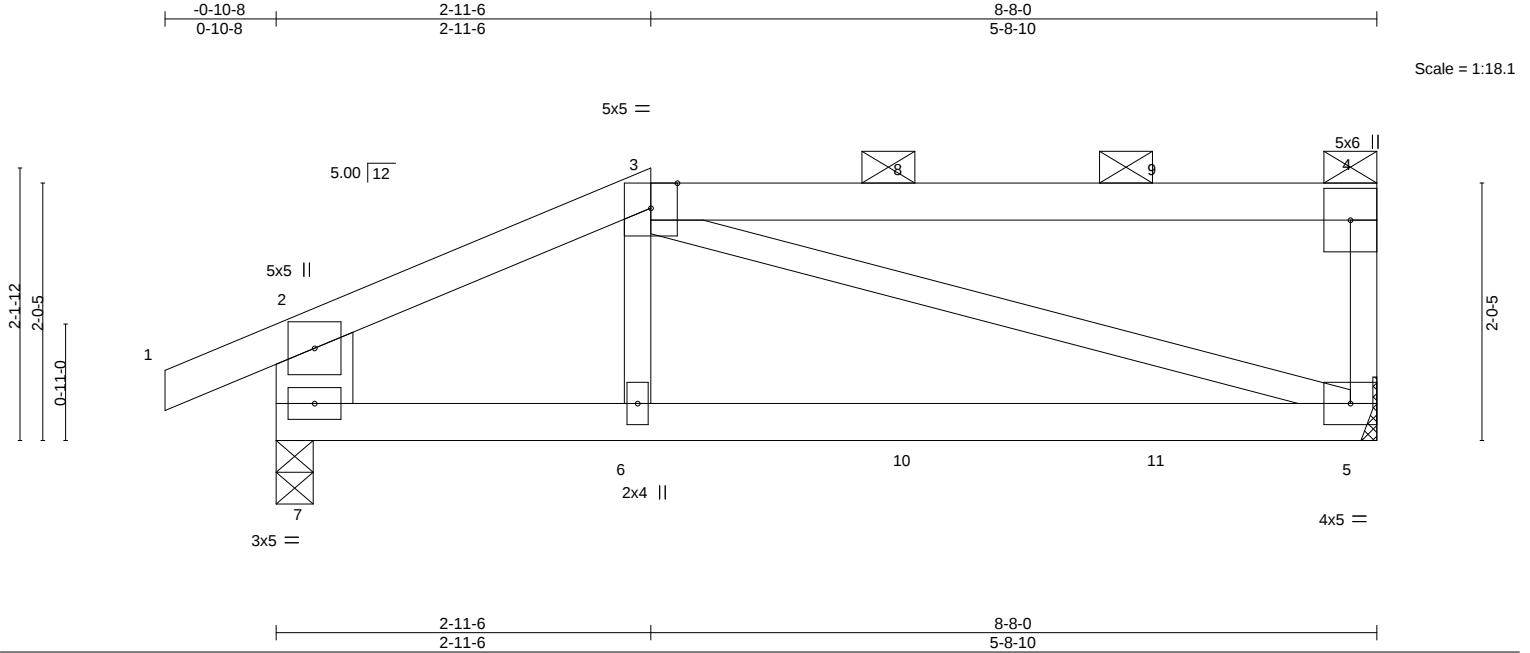


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387875
B210101	G1	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:45 2021 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.75	Vert(LL)	-0.06	5-6	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(CT)	-0.13	5-6	>738	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.51	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Wind(LL)	0.04	5-6	>999	240		
	Code IRC2018/TPI2014							Weight: 30 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-7: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 7=0-3-8
Max Horz 7=81(LC 7)
Max Uplift 5=123(LC 5), 7=149(LC 4)
Max Grav 5=533(LC 1), 7=657(LC 1)

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

TOP CHORD 2-3=-783/156, 4-5=-260/114, 2-7=-537/119
BOT CHORD 6-7=-176/662, 5-6=-180/653
WEBS 3-6=0/281, 3-5=-579/149

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=123, 7=149.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 77 lb down and 67 lb up at 2-11-6, and 82 lb down and 67 lb up at 5-0-5, and 82 lb down and 67 lb up at 7-0-5 on top chord, and 175 lb down and 64 lb up at 2-11-6, and 32 lb down at 5-0-5, and 32 lb down at 7-0-5 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



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Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387875
B210101	G1	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:45 2021 Page 2
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LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-48(F) 6=-175(F) 8=-48(F) 9=-48(F) 10=-23(F) 11=-23(F)

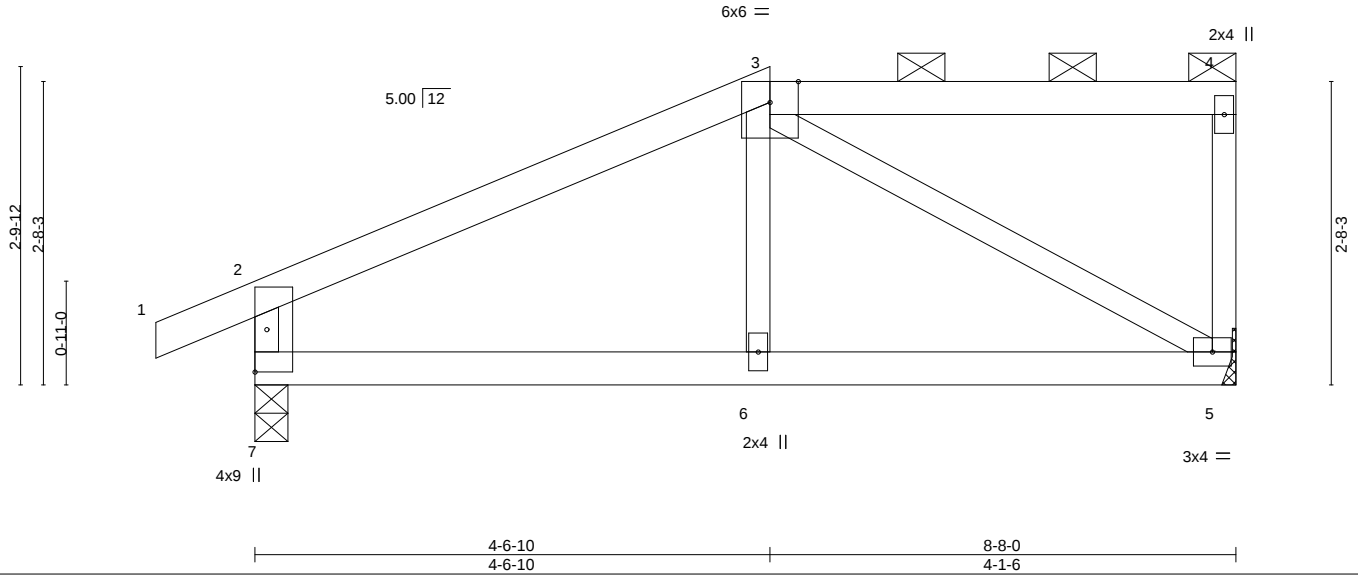
Job	Truss	Truss Type	Qty	Ply	104 RR	i49387876
B210101	G2	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:45 2021 Page 1
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0-10-8	4-6-10	8-8-0
0-10-8	4-6-10	4-1-6

Scale = 1:20.4



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.51	Vert(LL)	-0.02	6	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.22	Vert(CT)	-0.04	5-6	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.21	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.01	6	>999	240		
	Code IRC2018/TPI2014							Weight: 29 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 7=0-3-8
Max Horz 7=109(LC 5)
Max Uplift 5=-69(LC 5), 7=-71(LC 8)
Max Grav 5=377(LC 1), 7=453(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-435/55, 2-7=-390/99
BOT CHORD 6-7=-81/339, 5-6=-83/337
WEBS 3-5=-372/70

NOTES-

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



December 22, 2021

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

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

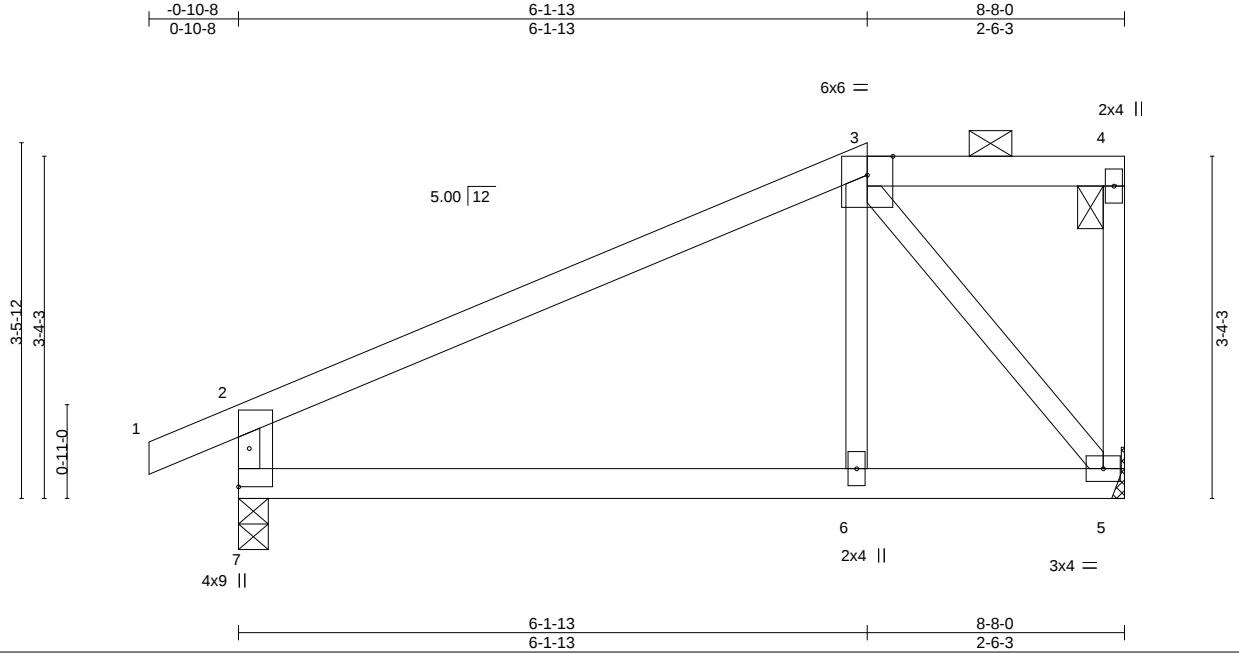


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	G3	Half Hip	1	1		I49387877

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:46 2021 Page 1
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Scale = 1:22.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.52	Vert(LL)	-0.03	6-7	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.24	Vert(CT)	-0.07	6-7	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	-0.01	6	>999	240		
	Code IRC2018/TPI2014							Weight: 29 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 7=0-3-8
Max Horz 7=138(LC 7)
Max Uplift 5=-65(LC 5), 7=-77(LC 8)
Max Grav 5=377(LC 1), 7=453(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-365/47, 2-7=-399/119
BOT CHORD 6-7=-68/260, 5-6=-69/256
WEBS 3-5=-418/87

NOTES-

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



December 22,2021

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



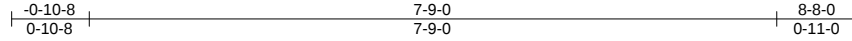
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	G4	Half Hip	1	1		I49387878

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:47 2021 Page 1

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4x9 =

3x6 =

Scale = 1:26.0

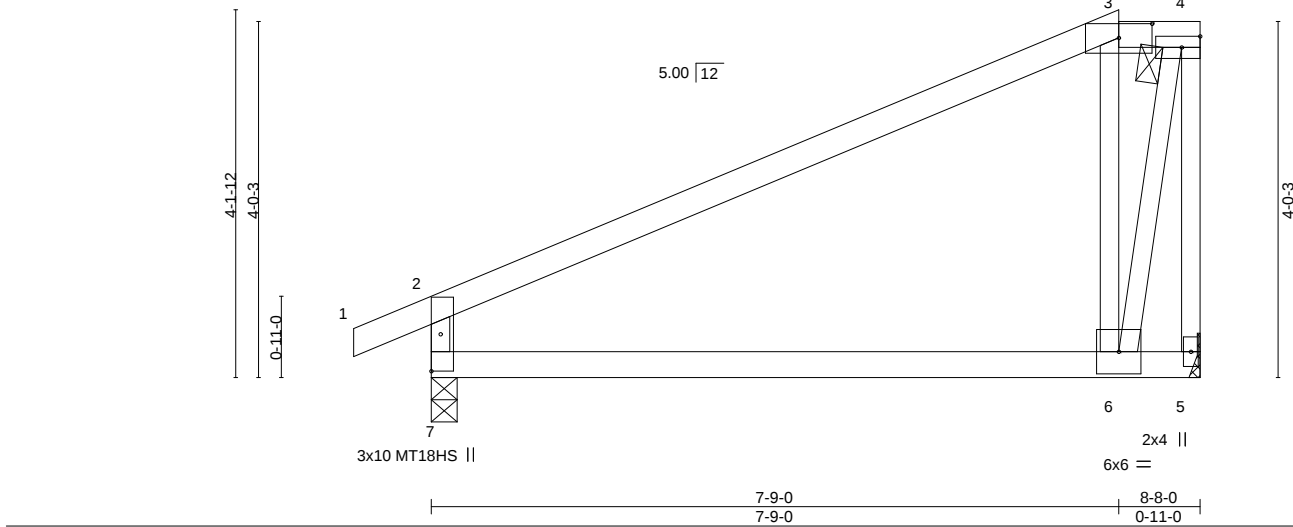


Plate Offsets (X,Y)-- [3:0-4-8,0-1-15]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.76	Vert(LL)	-0.08	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.18	6-7	>578	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.27	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	6-7	>999	240	Weight: 31 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=Mechanical, 7=0-3-8
Max Horz 7=167(LC 5)
Max Uplift 5=-73(LC 8), 7=-77(LC 8)
Max Grav 5=377(LC 1), 7=453(LC 1)

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

TOP CHORD 2-3=-285/32, 4-5=-546/61, 2-7=-402/131
WEBS 3-6=-481/245, 4-6=-189/785

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.



December 22, 2021

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

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

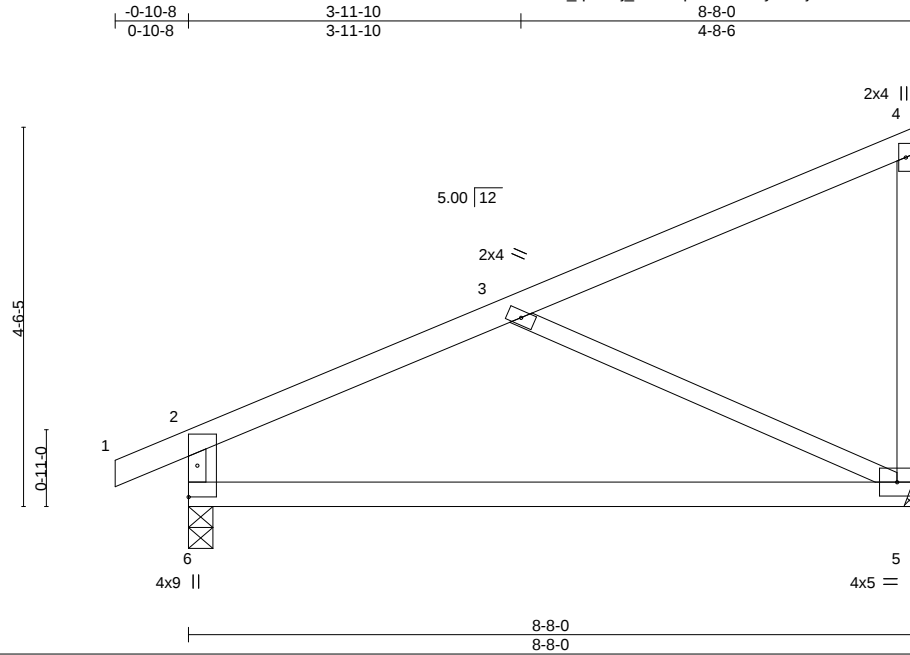


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	G5	Monopitch	2	1		I49387879

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:47 2021 Page 1
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Scale = 1:27.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.21	5-6	>491	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.40	5-6	>253	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	-0.01	5-6	>999	240	Weight: 29 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 6=0-3-8
Max Horz 6=188(LC 5)
Max Uplift 5=-91(LC 8), 6=-74(LC 8)
Max Grav 5=377(LC 1), 6=453(LC 1)

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

TOP CHORD 2-3=-435/116, 2-6=-360/123
BOT CHORD 5-6=-141/350
WEBS 3-5=-367/187

NOTES-

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



December 22, 2021

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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	104 RR	i49387880
B210101	H1	GABLE	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:49 2021 Page 1
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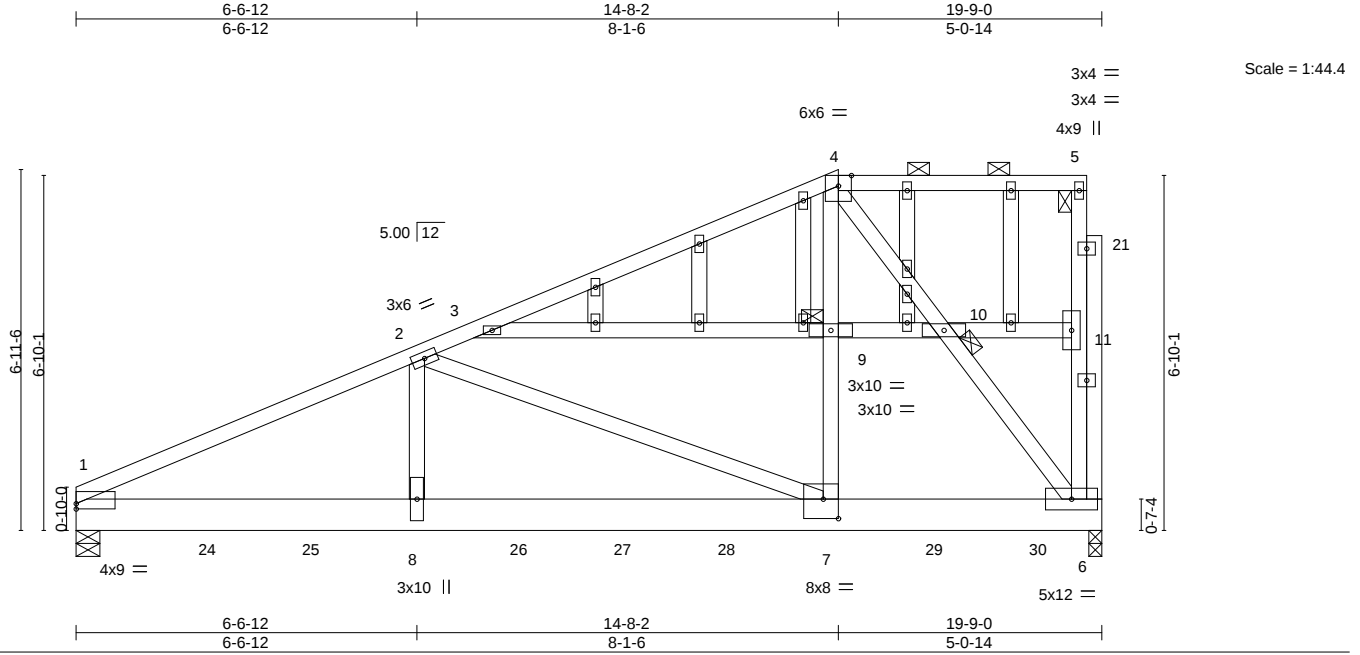


Plate Offsets (X,Y)-- [1:0-0-0,0-1-4], [7:0-3-8,0-4-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.84	Vert(LL)	-0.08	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.15	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.71	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	7-8	>999	240	Weight: 286 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-15 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 5, 9, 10

REACTIONS.

(size) 1=0-5-8, 6=0-3-0
Max Horz 1=278(LC 28)
Max Uplift 1=-438(LC 8), 6=-510(LC 5)
Max Grav 1=3291(LC 1), 6=3100(LC 1)

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

TOP CHORD 1-2=-5190/789, 2-3=-2387/414, 3-4=-1959/279
BOT CHORD 1-8=-772/4584, 7-8=-772/4584, 6-7=-376/2136
WEBS 2-8=-167/1916, 2-7=-2606/446, 7-9=-376/2752, 4-9=-376/2755, 4-10=-3030/515, 6-10=-3152/538, 3-9=-431/198, 9-10=-524/204, 10-11=-318/165

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 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=438, 6=510.
- 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.

Continued on page 2



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	H1	GABLE	1	2		I49387880

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:49 2021 Page 2
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- NOTES-**
- 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 474 lb down and 39 lb up at 0-2-12, 467 lb down and 45 lb up at 2-6-4, 467 lb down and 58 lb up at 4-6-4, 467 lb down and 85 lb up at 6-6-4, 467 lb down and 91 lb up at 8-6-4, 467 lb down and 91 lb up at 10-6-4, 467 lb down and 91 lb up at 12-6-4, 467 lb down and 91 lb up at 14-6-4, and 467 lb down and 91 lb up at 16-6-4, and 461 lb down and 89 lb up at 18-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 15) Studding applied to ply: 1(Front)

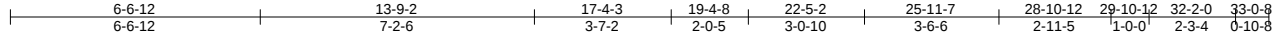
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-4=-70, 4-5=-70, 1-6=-20
- Concentrated Loads (lb)
- Vert: 1=-474(B) 8=-467(B) 7=-467(B) 24=-467(B) 25=-467(B) 26=-467(B) 27=-467(B) 28=-467(B) 29=-467(B) 30=-461(B)

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387881
B210101	H2	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:50 2021 Page 1

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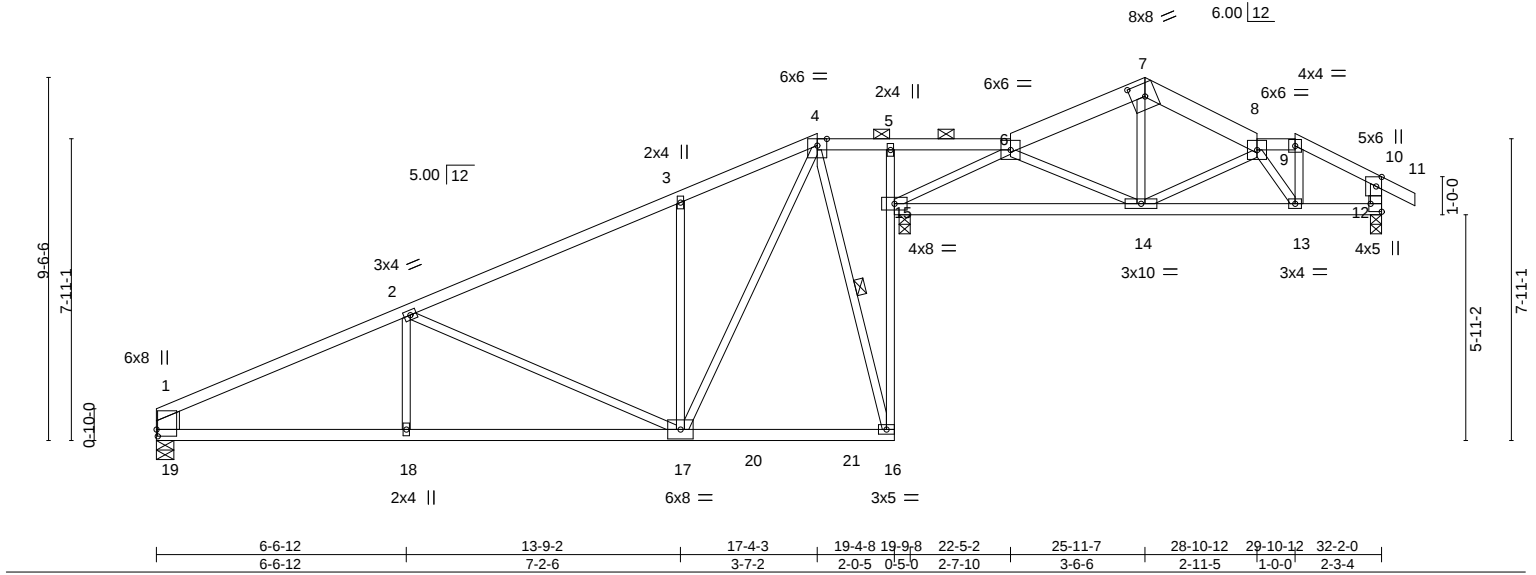


Plate Offsets (X,Y)--		[1:0-2-2,0-0-6], [7:0-4-7,0-4-0], [10:0-3-0,Edge], [12:Edge,0-3-8]															
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES		GRIP					
TCLL 25.0		Plate Grip DOL	1.15	TC 0.73		Vert(LL)	-0.18 17-18	>999	360	MT20		197/144					
TCDL 10.0		Lumber DOL	1.15	BC 0.73		Vert(CT)	-0.33 17-18	>698	240								
BCLL 0.0 *		Rep Stress Incr	NO	WB 0.94		Horz(CT)	-0.12 15	n/a	n/a								
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.10 17-18	>999	240								

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 6-7,7-8: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-1-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-6, 8-9.
BOT CHORD	2x4 SPF No.2 *Except* 16-19: 2x4 SPF 2100F 1.8E, 5-16: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 1-19: 2x8 SP DSS, 10-12: 2x4 SPF No.2	WEBS	1 Row at midpt 4-16

REACTIONS. (size) 19=0-5-8, 15=0-3-8, 12=0-3-8
Max Horz 19=256(LC 8)
Max Uplift 19=-103(LC 29), 15=-306(LC 8), 12=-131(LC 9)
Max Grav 19=871(LC 23), 15=1528(LC 2), 12=632(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1331/156, 2-3=-726/78, 3-4=-711/175, 6-7=-684/111, 7-8=-690/107, 8-9=-455/117, 9-10=-607/123, 1-19=-708/132, 10-12=-496/124
BOT CHORD 18-19=-348/1153, 17-18=-348/1153, 15-16=-165/766, 5-15=-339/107, 14-15=-117/653, 13-14=-105/713, 12-13=-70/472
WEBS 2-17=-607/215, 3-17=-457/220, 4-17=-249/1032, 4-16=-704/195, 6-15=-764/151, 7-14=-11/334, 8-13=-484/65, 9-13=-19/351

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=103, 15=306, 12=131.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb down and 85 lb up at 29-10-12 on top chord, and 5 lb down and 5 lb up at 29-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Continued on page 2



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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	104 RR	I49387881
B210101	H2	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:50 2021 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 9-10=-70, 10-11=-70, 16-19=-20, 12-15=-20

Concentrated Loads (lb)

Vert: 13=1(B)

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387882
B210101	H3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:51 2021 Page 1
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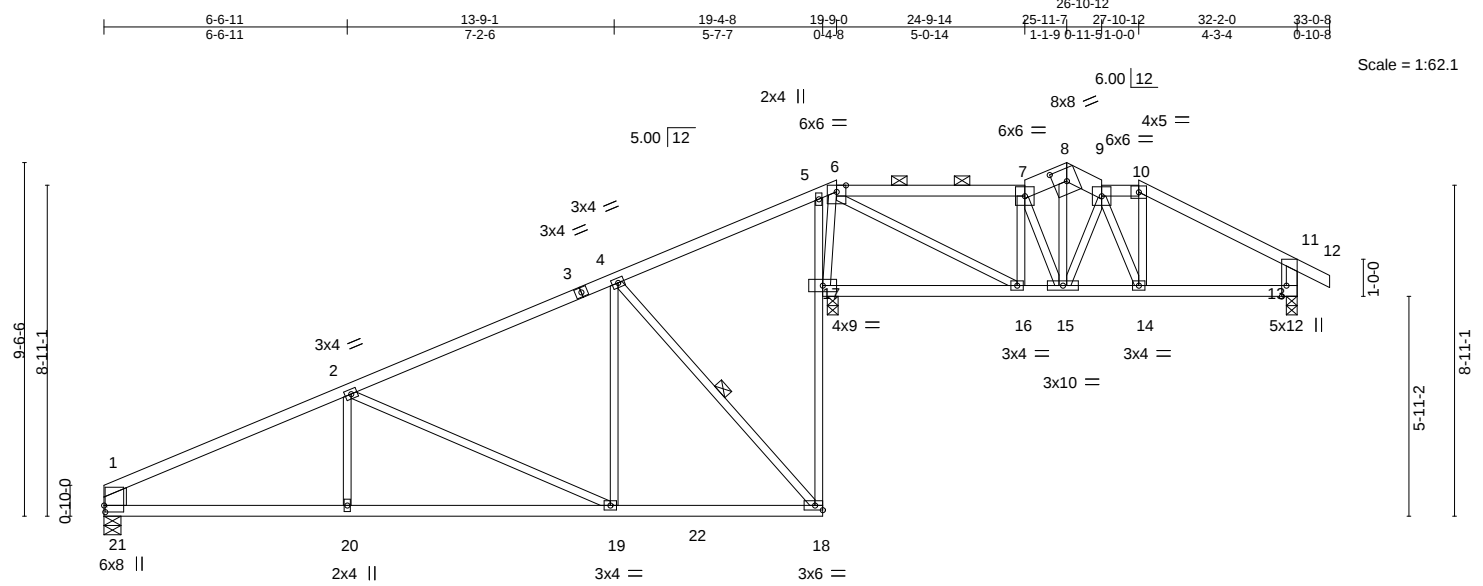


Plate Offsets (X,Y)--	[8:0-4-6,0-3-15], [13:0-3-8,Edge], [21:0-2-2,0-0-6]
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LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.64	Vert(LL) -0.18	19-20	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.66	Vert(CT) -0.32	19-20	>704	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.93	Horz(CT) -0.15	17	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.10	19-20	>999	240	Weight: 128 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-8,8-9: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
18-21: 2x4 SPF 2100F 1.8E, 5-18: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-21: 2x8 SP DSS, 11-13: 2x4 SPF No.2

REACTIONS.

(size) 21=0-5-8, 17=0-3-8, 13=0-3-8
Max Horz 21=256(LC 8)
Max Uplift 21=-103(LC 8), 17=-295(LC 8), 13=-105(LC 9)
Max Grav 21=874(LC 23), 17=1518(LC 2), 13=634(LC 2)

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

TOP CHORD 1-2=-1337/155, 2-4=-734/80, 6-7=-670/109, 7-8=-642/131, 8-9=-601/118,
9-10=-527/123, 10-11=-677/105, 1-21=-708/132, 11-13=-536/128
BOT CHORD 20-21=-347/1158, 19-20=-347/1158, 18-19=-155/608, 17-18=-152/765, 5-17=-347/123,
15-16=-42/676, 14-15=-32/599, 13-14=-35/533
WEBS 6-17=-372/79, 6-16=-42/699, 7-15=-290/60, 8-15=-76/353, 4-18=-931/236,
2-19=-604/211, 4-19=-4/563

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=103, 17=295, 13=105.
- 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.



December 22,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387883
B210101	H4	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:52 2021 Page 1

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8-11-7	15-8-0	19-7-12	22-1-13	25-10-12	32-2-0	33-0-8
8-11-7	6-8-9	3-11-12	2-6-1	3-8-15	6-3-4	0-10-8

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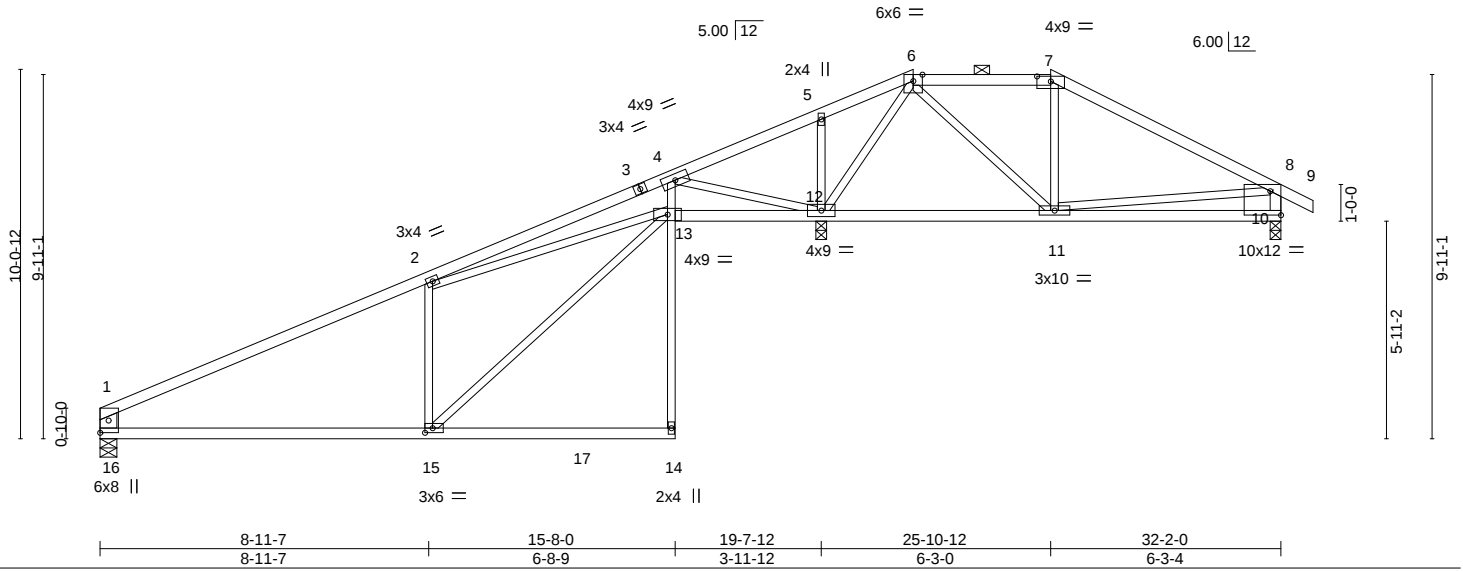


Plate Offsets (X,Y)-- [7:0-4-8,0-1-11], [10:Edge,0-7-13], [15:0-2-8,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.13 15-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.27 15-16	>858	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.77	Horz(CT)	-0.04 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04 15-16	>999	240	Weight: 121 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-14: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-16: 2x6 SPF No.2, 8-10: 2x4 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 (6-0-0 max.): 6-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.

REACTIONS.

(size) 16=0-5-8, 10=0-3-8, 12=0-3-8
 Max Horz 16=268(LC 8)
 Max Uplift 16=-65(LC 8), 10=-97(LC 9), 12=-353(LC 8)
 Max Grav 16=712(LC 2), 10=491(LC 22), 12=1999(LC 2)

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

TOP CHORD 1-2=-911/54, 2-4=-265/176, 4-5=-301/1439, 5-6=-229/1396, 6-7=-276/110, 7-8=-404/150, 1-16=-596/122, 8-10=-436/128
 BOT CHORD 15-16=-240/754, 4-13=-168/676, 11-12=-547/184, 10-11=-127/299
 WEBS 2-15=-504/319, 13-15=-328/1019, 2-13=-633/31, 4-12=-1389/478, 5-12=-297/142, 6-12=-1395/188, 6-11=-56/758, 7-11=-333/99, 8-11=-261/176

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10 except (jt=lb) 12=353.
- 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.



December 22,2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387884
B210101	H6	Roof Special	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:53 2021 Page 1

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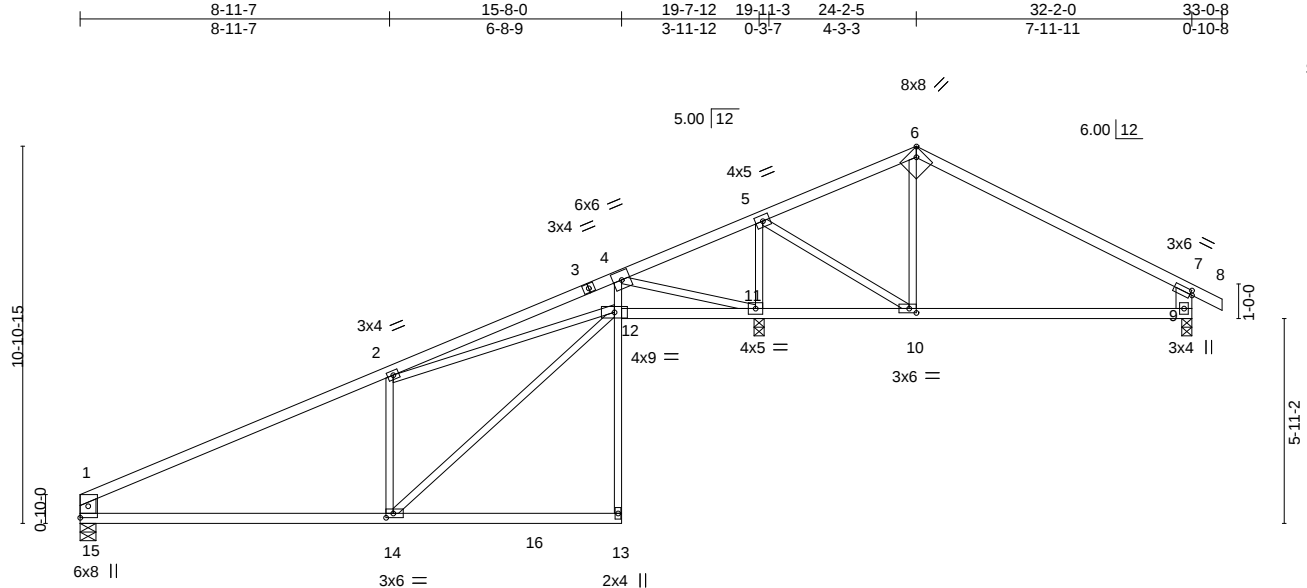


Plate Offsets (X,Y)--	[6:0-2-10,Edge], [7:0-0-12,0-1-8], [10:0-2-8,0-1-8], [14:0-2-8,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.82	Vert(LL) -0.16	13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.59	Vert(CT) -0.28	14-15	>832	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Horz(CT) -0.06	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.08	12	>999	240	Weight: 114 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-13: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-15,7-9: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 4-11-8 oc bracing.

REACTIONS.

(size) 15=0-5-8, 9=0-3-8, 11=0-3-8
 Max Horz 15=283(LC 8)
 Max Uplift 15=-69(LC 8), 9=-127(LC 9), 11=-358(LC 8)
 Max Grav 15=743(LC 2), 9=498(LC 22), 11=1918(LC 2)

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

TOP CHORD 1-2=-977/61, 2-4=-797/329, 4-5=-231/1283, 6-7=-321/222, 1-15=-624/125, 7-9=-447/186
 BOT CHORD 14-15=-262/814, 4-12=-225/887, 11-12=-326/560, 10-11=-1138/205
 WEBS 2-14=-564/339, 12-14=-356/1098, 2-12=-305/32, 4-11=-1709/548, 5-11=-1373/272, 5-10=-122/1280, 6-10=-448/137

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- The Fabrication Tolerance at joint 6 = 6%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15 except (jt=lb) 9=127, 11=358.
- 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.



December 22,2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387885
B210101	H7	Roof Special	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:54 2021 Page 1

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0-10-8 8-11-6 15-4-8 18-5-5 24-2-5 32-2-0 33-0-8
0-10-8 8-11-6 6-5-1 3-0-13 5-9-0 7-11-11 0-10-8

Scale = 1:66.7

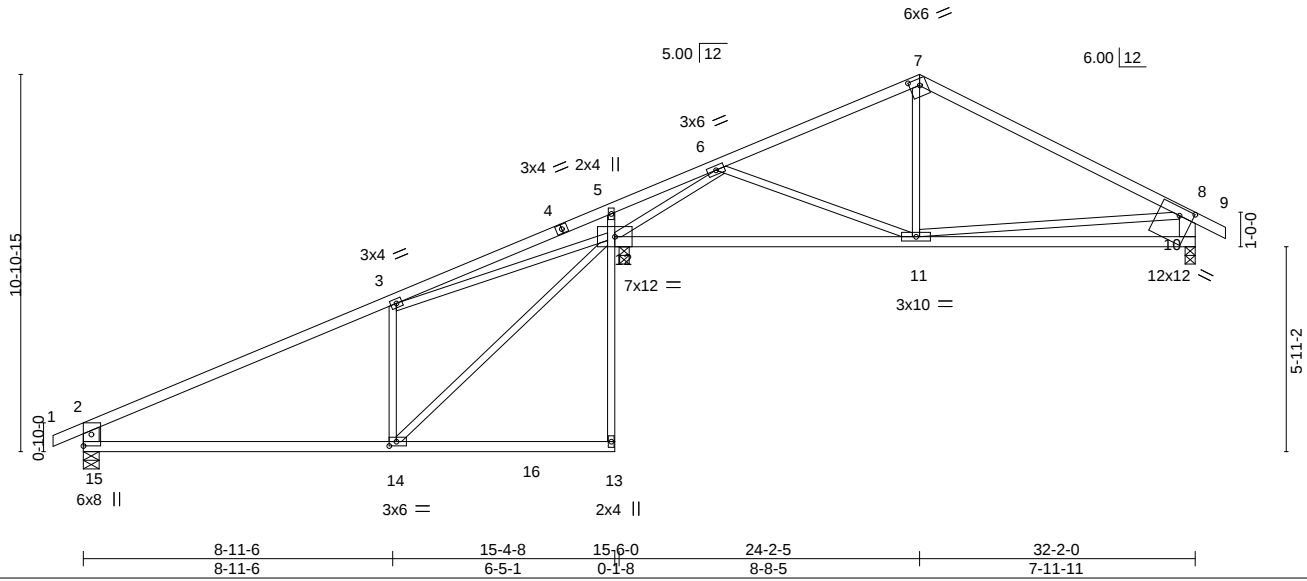


Plate Offsets (X,Y)-- [7:0-3-8,0-2-4], [10:0-4-12,0-2-12], [14:0-2-8,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.80	Vert(LL) -0.14	11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.67	Vert(CT) -0.28	11-12	>719	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.77	Horz(CT) -0.05	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.05	14-15	>999	240	Weight: 119 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-14.

REACTIONS.

(size) 15=0-5-8, 10=0-3-8, 12=0-3-8
Max Horz 15=299(LC 8)
Max Uplift 15=-85(LC 8), 10=-119(LC 9), 12=-282(LC 8)
Max Grav 15=759(LC 2), 10=831(LC 2), 12=1506(LC 2)

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

TOP CHORD 2-3=-871/42, 6-7=-884/125, 7-8=-950/134, 2-15=-676/145, 8-10=-760/159
BOT CHORD 14-15=-243/712, 5-12=-284/82, 11-12=-244/834, 10-11=-228/536
WEBS 3-14=-466/317, 12-14=-334/977, 3-12=-683/4, 6-12=-891/85, 7-11=0/335, 8-11=-23/379

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15 except (jt=lb) 10=119, 12=282.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387886
B210101	H8	Roof Special	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:55 2021 Page 1

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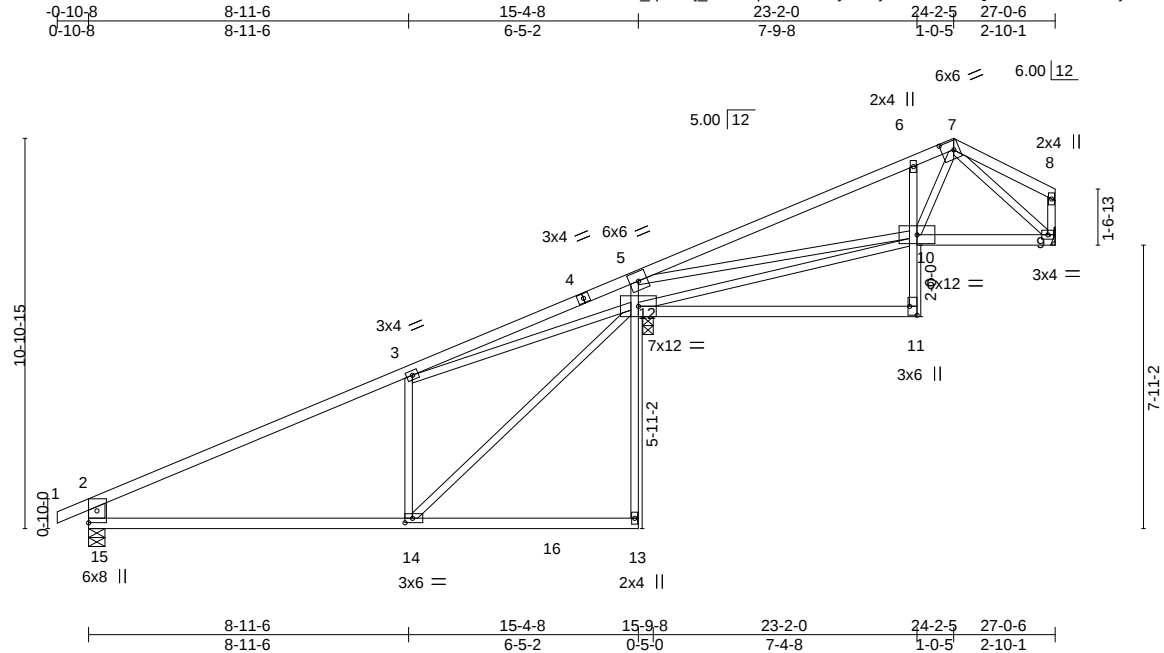


Plate Offsets (X,Y)-- [7:0-4-2,0-3-0], [11:Edge,0-2-8], [14:0-2-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.80	Vert(LL) -0.13	14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.62	Vert(CT) -0.28	14-15	>655	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.71	Horz(CT) -0.04	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.04	14-15	>999	240	Weight: 109 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 5-13,6-11: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-15: 2x6 SPF No.2

REACTIONS.

(size) 15=0-5-8, 12=0-3-8, 9=Mechanical
 Max Horz 15=245(LC 8)
 Max Uplift 12=-107(LC 8), 9=-15(LC 8)
 Max Grav 15=757(LC 2), 12=1283(LC 2), 9=529(LC 2)

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

TOP CHORD 2-3=-871/0, 5-6=-886/82, 6-7=-858/140, 2-15=-673/37
 BOT CHORD 14-15=-109/705, 5-12=-673/115, 6-10=-531/171, 9-10=-7/395
 WEBS 3-14=-452/193, 12-14=-149/965, 3-12=-634/0, 10-12=-149/284, 5-10=0/415,
 7-10=-143/815, 7-9=-498/26

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 12=107.
- 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.



December 22,2021

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



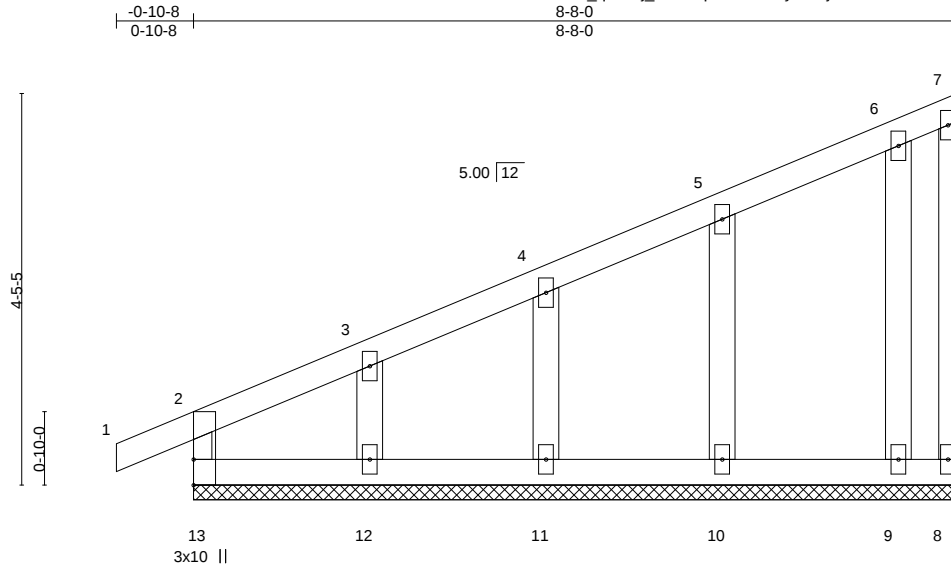
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387887
B210101	H9	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:56 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-xW32?aufhk1SC54onStl_Sx3_WeJXX3jguHeQZy6hv5
8-8-0
8-8-0



Scale = 1:26.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	0.00	2	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 36 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-8-0.
(lb) - Max Horz 13=184(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 8, 12, 11, 10, 9
Max Grav All reactions 250 lb or less at joint(s) 13, 8, 12, 11, 10, 9

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 8, 12, 11, 10, 9.
- 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.



December 22, 2021

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

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

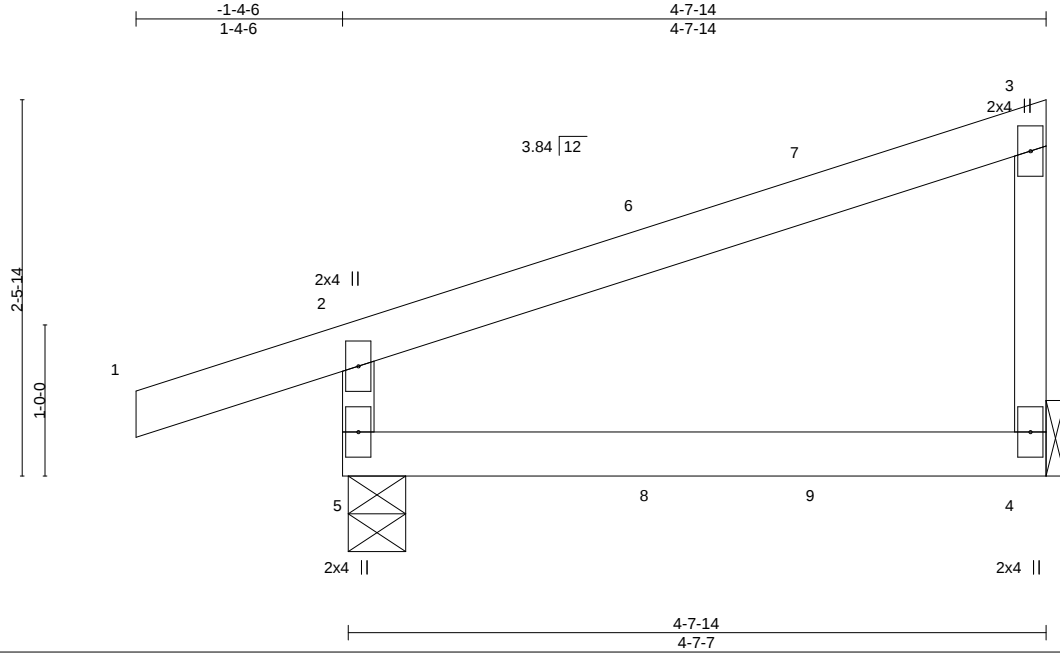


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387888
B210101	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:57 2021 Page 1
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Scale = 1:15.3

LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.26		Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17		Vert(CT)	-0.03	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00		Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 4=Mechanical
Max Horz 5=101(LC 5)
Max Uplift 5=-106(LC 4), 4=-46(LC 8)
Max Grav 5=320(LC 1), 4=183(LC 1)

FORCES.

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

TOP CHORD 2-5=-281/132

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=106.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 24 lb up at 2-1-10, and 77 lb down and 51 lb up at 3-2-13 on top chord, and 5 lb down and 10 lb up at 2-1-10, and 10 lb down at 3-2-13 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=2(B) 9=-1(F)



December 22, 2021

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

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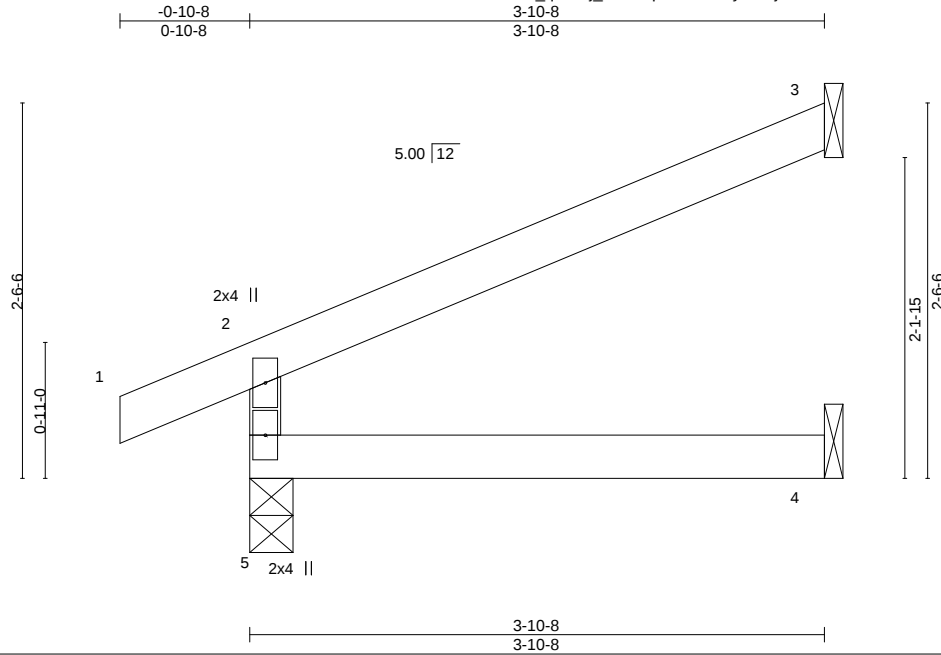
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387889
B210101	J2	Jack-Open	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:03 2021 Page 1

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Scale = 1:15.5

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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=68(LC 8)
Max Uplift 5=-31(LC 8), 3=-64(LC 8)
Max Grav 5=244(LC 1), 3=116(LC 1), 4=71(LC 3)

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

NOTES-

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



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



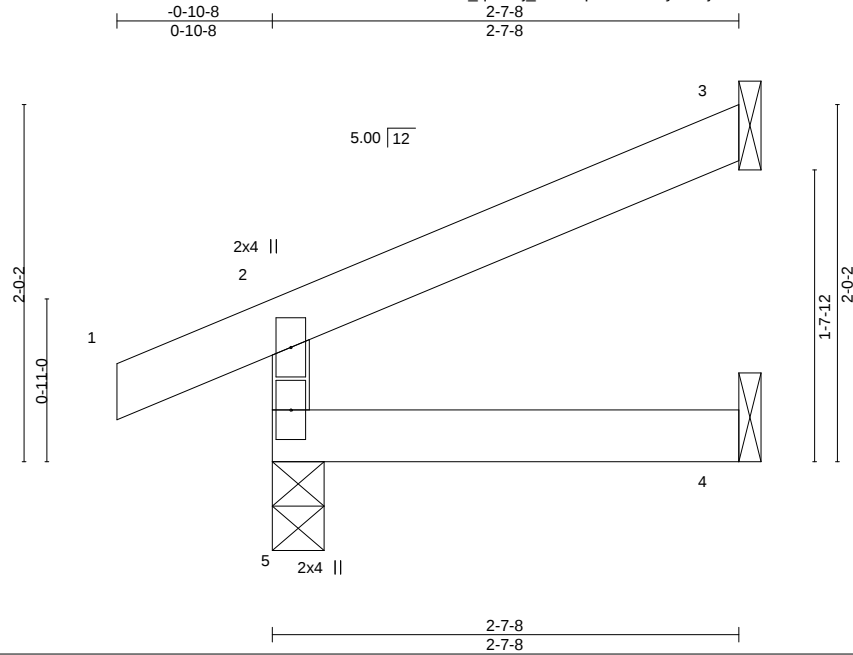
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J3	Jack-Open	2	1		I49387890
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:10 2021 Page 1

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Scale = 1:13.0

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.07	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	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240		
									Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=50(LC 5)
Max Uplift 5=-27(LC 4), 3=-43(LC 8)
Max Grav 5=193(LC 1), 3=72(LC 1), 4=47(LC 3)

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

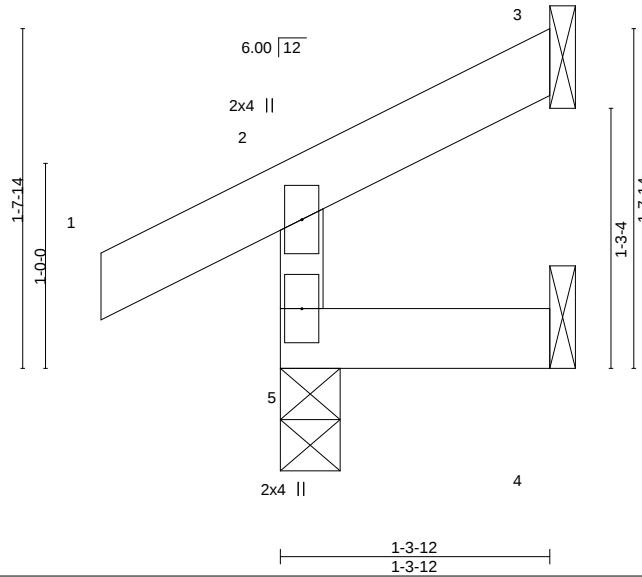
Job	Truss	Truss Type	Qty	Ply	104 RR	i49387891
B210101	J4	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:17 2021 Page 1
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-0-10-8 1-3-12
0-10-8 1-3-12

Scale = 1:11.2



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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-3-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=40(LC 5)
Max Uplift 5=17(LC 8), 3=23(LC 8), 4=4(LC 5)
Max Grav 5=150(LC 1), 3=17(LC 1), 4=22(LC 3)

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

NOTES-

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



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



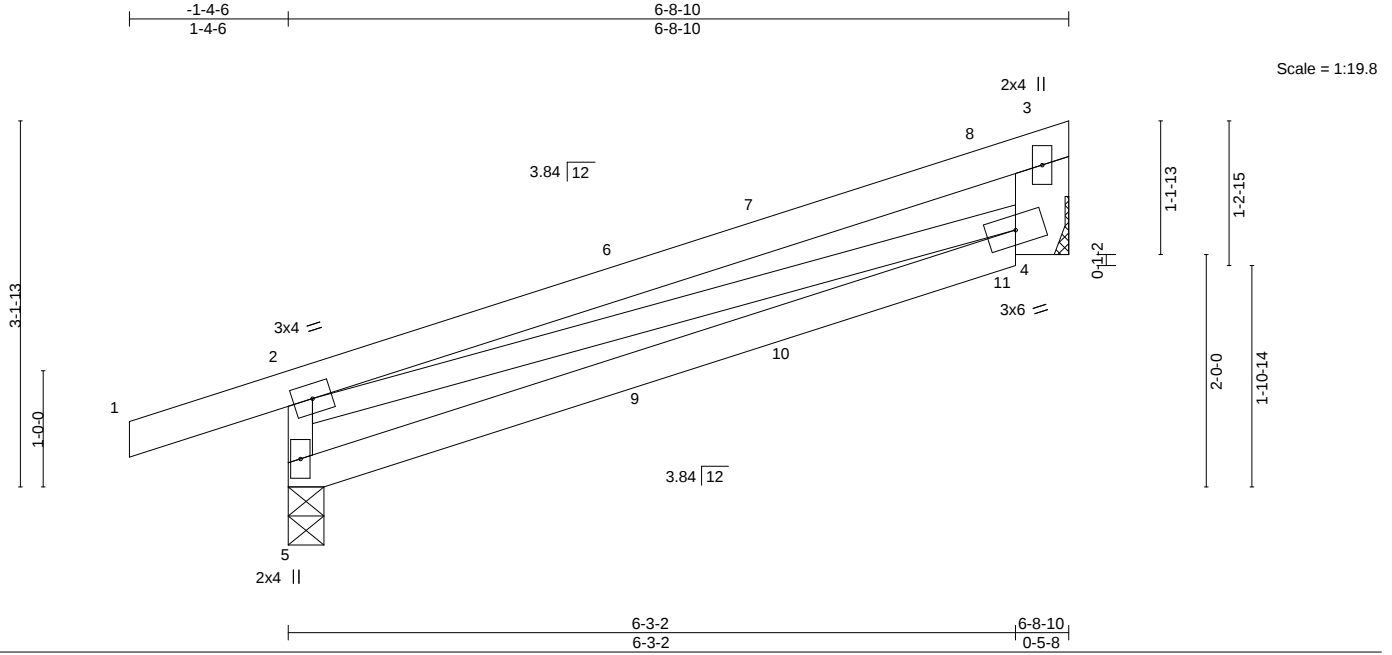
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387892
B210101	J6	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:22 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.88	Vert(LL) -0.11	4-5	>706	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.51	Vert(CT) -0.22	4-5	>351	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.02	Horz(CT) -0.00	4	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Wind(LL) -0.01	4-5	>999	240		Weight: 24 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 3-4: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 5=0-3-11, 4=Mechanical
 Max Horz 5=97(LC 5)
 Max Uplift 5=-110(LC 4), 4=-106(LC 8)
 Max Grav 5=409(LC 1), 4=383(LC 1)

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

TOP CHORD 2-5=-342/176, 3-4=-286/151

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=110, 4=106.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 48 lb up at 2-11-12, and 76 lb down and 56 lb up at 4-2-6, and 97 lb down and 85 lb up at 6-1-3 on top chord, and 6 lb down at 2-11-12, and 13 lb down at 4-2-6, and 48 lb down at 6-1-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-70, 2-3=-70, 4-5=-20
 Concentrated Loads (lb)
 Vert: 8=-77(F) 9=-1(F) 10=-1(B) 11=-36(F)



December 22, 2021

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

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



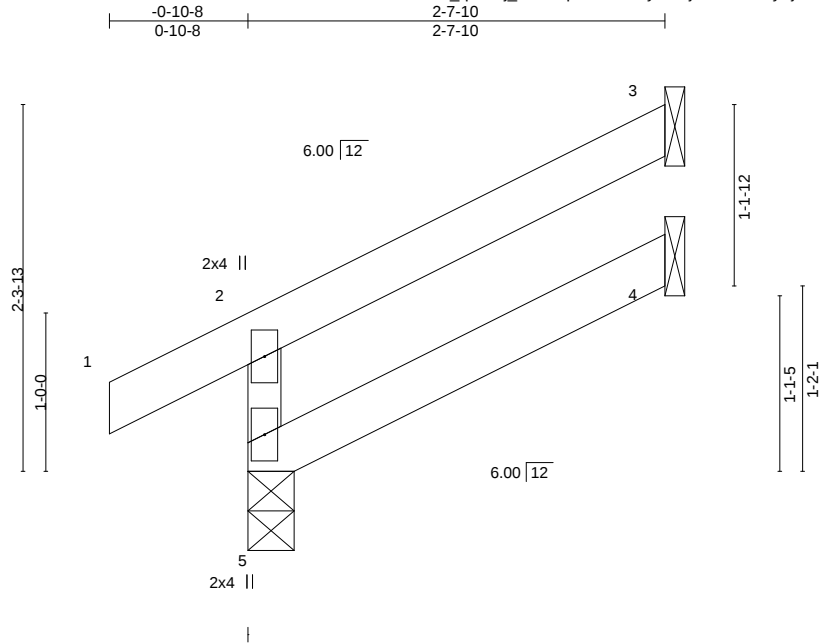
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J7	Jack-Open	1	1		I49387893

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:22 2021 Page 1

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Scale = 1:14.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	
								Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 5)
Max Uplift 5=-16(LC 8), 3=-50(LC 8)
Max Grav 5=193(LC 1), 3=72(LC 1), 4=47(LC 3)

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

NOTES-

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



December 22, 2021

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

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



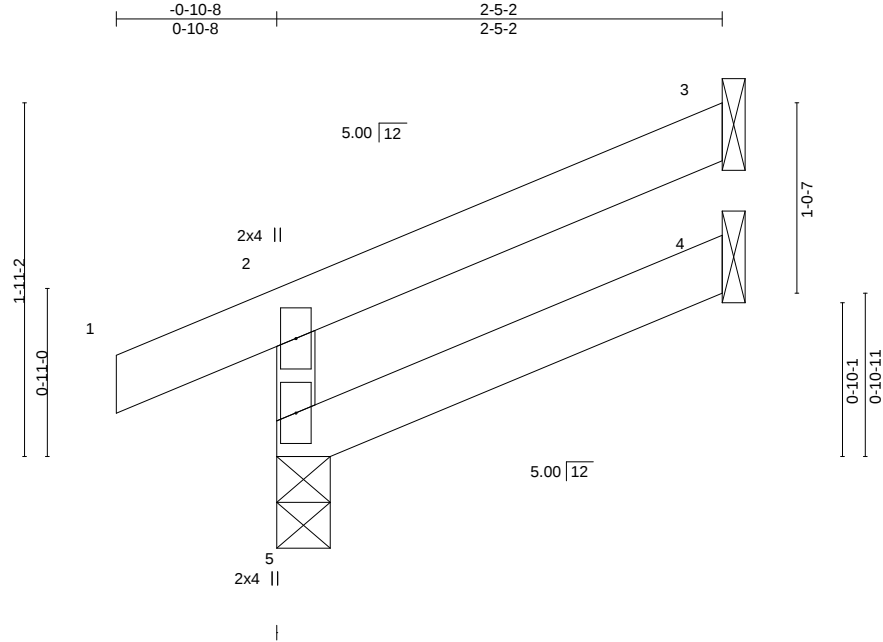
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387894
B210101	J8	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:23 2021 Page 1

ID:M6_gRERj_ax8BApGKEbrTSyOHsj-eiCFgpCbKORdyFe_sdsea8Zg7PsnMkAhubKZsVy6hug



Scale = 1:12.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-5-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=50(LC 5)
Max Uplift 5=-26(LC 4), 3=-41(LC 8)
Max Grav 5=185(LC 1), 3=65(LC 1), 4=43(LC 3)

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

NOTES-

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



December 22, 2021

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

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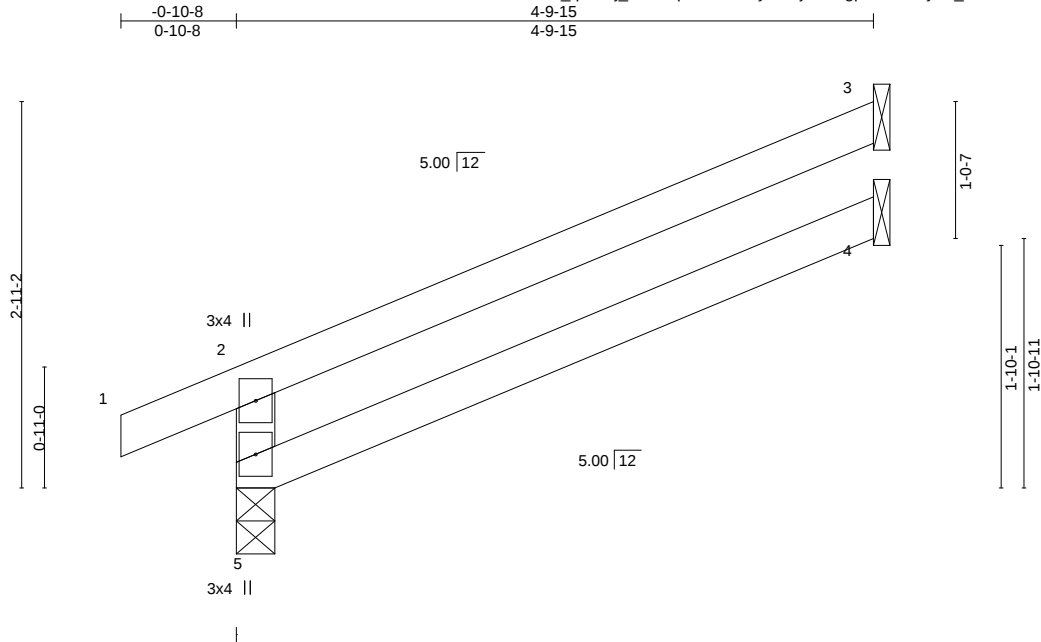
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J9	Jack-Open	1	1		I49387895
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:23 2021 Page 1

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Scale = 1:17.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.05	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	4-5	>999	240	Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-9-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=83(LC 8)
Max Uplift 5=-35(LC 8), 3=-77(LC 8)
Max Grav 5=287(LC 1), 3=145(LC 1), 4=87(LC 3)

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

NOTES-

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



December 22, 2021

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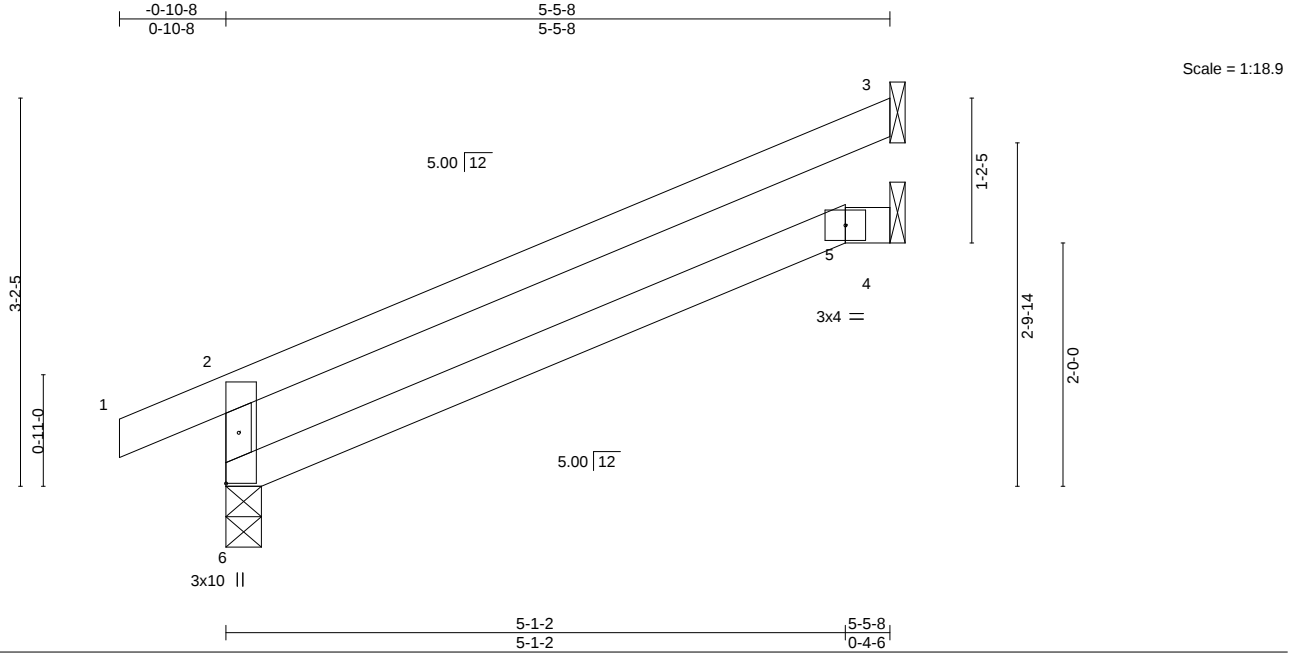
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J10	Jack-Open	3	1		I49387896

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:57 2021 Page 1

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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.04	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.09	5-6	>702	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.04	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	5-6	>999	240	Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=94(LC 8)
Max Uplift 6=-37(LC 8), 3=-90(LC 8)
Max Grav 6=313(LC 1), 3=170(LC 1), 4=101(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-269/85

NOTES-

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



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J11	Jack-Closed	4	1		I49387897

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:58 2021 Page 1

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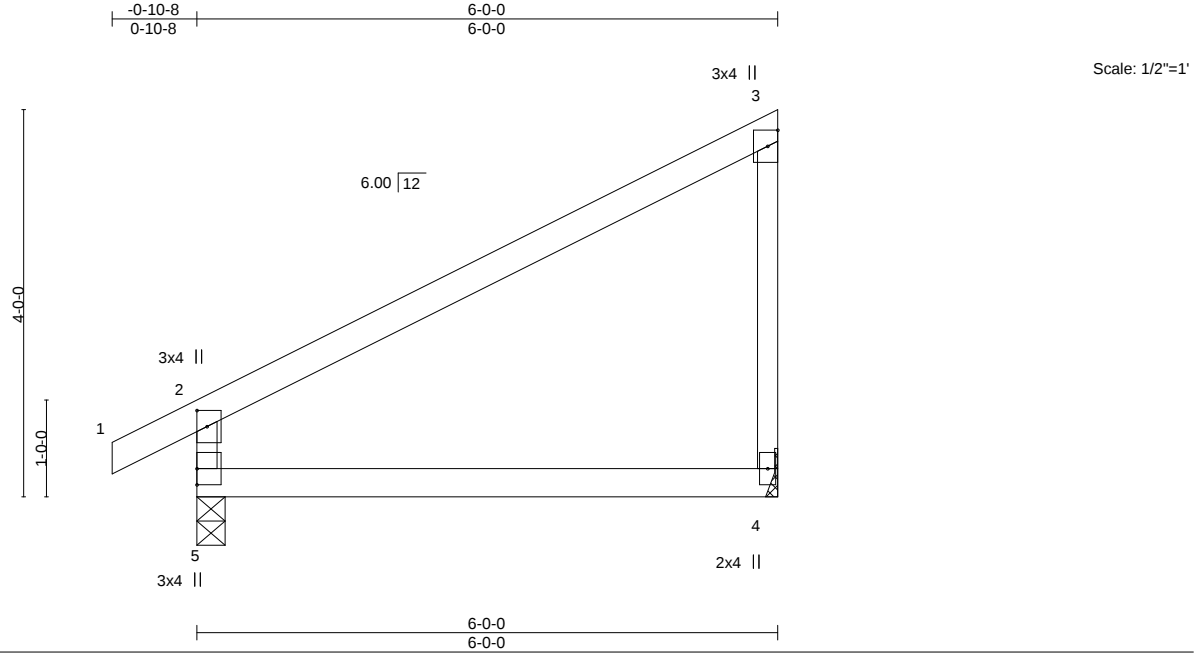


Plate Offsets (X,Y)-- [2:0-2-0,0-1-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.10	4-5	>674	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	4-5	>999	240	Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 4=Mechanical
Max Horz 5=158(LC 5)
Max Uplift 5=-50(LC 8), 4=-70(LC 8)
Max Grav 5=335(LC 1), 4=255(LC 1)

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

TOP CHORD 2-5=-290/96

NOTES-

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



December 22,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J12	Jack-Closed	1	1		I49387898

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:58 2021 Page 1

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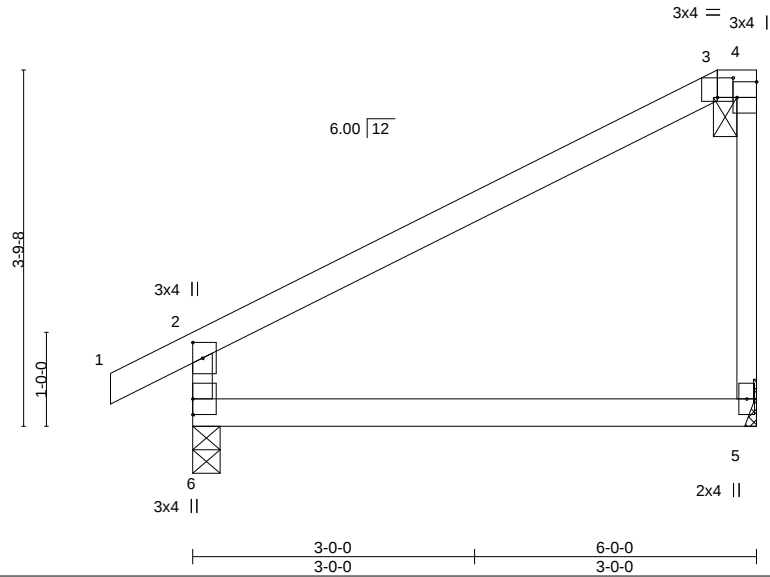


Plate Offsets (X,Y)-- [2:0-2-0,0-1-4], [3:0-2-0,0-2-8], [4:Edge,0-2-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.46	Vert(LL)	-0.05	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.10	5-6	>684	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	5-6	>999	240	Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=0-3-8, 5=Mechanical
Max Horz 6=152(LC 5)
Max Uplift 6=-52(LC 8), 5=-62(LC 8)
Max Grav 6=335(LC 1), 5=255(LC 1)

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

TOP CHORD 2-6=-290/98

NOTES-

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



December 22, 2021

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

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



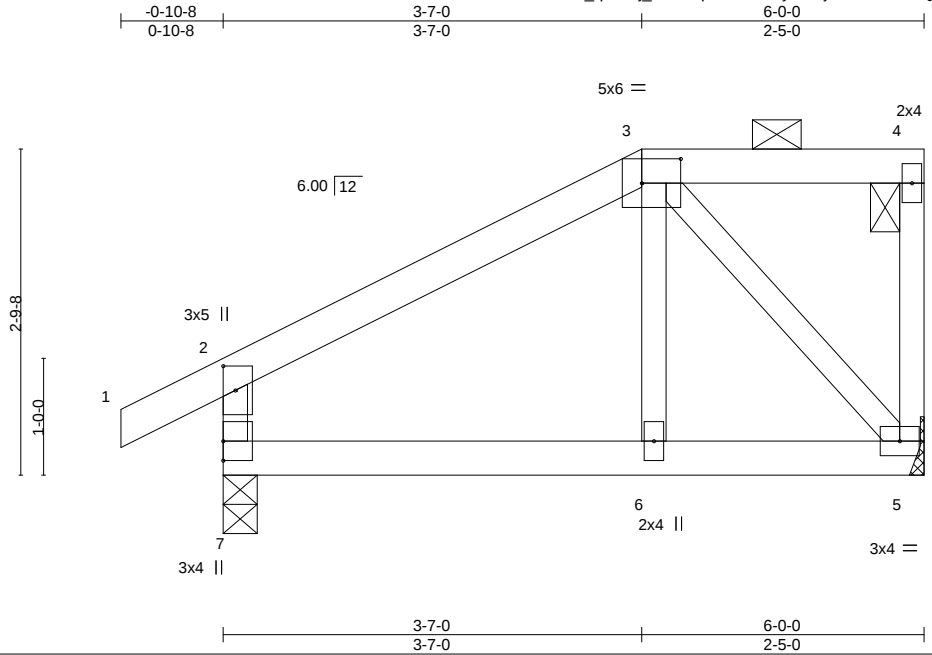
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J13	Jack-Closed Girder	1	1		I49387899

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:52:59 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-L5IAdcwXzfQ03ZpNSaQ?c5ZWfjeAksu9MsW1uy6hv2



Scale = 1:19.7

Plate Offsets (X,Y)--		[2:0-2-8,0-1-4], [3:0-4-0,0-2-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.35		Vert(LL)	-0.01 6 >999 360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.17		Vert(CT)	-0.02 6 >999 240		
BCLL 0.0 *		Rep Stress Incr	NO	WB 0.09		Horz(CT)	0.00 5 n/a n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.01 6 >999 240	Weight: 22 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-3-8, 5=Mechanical
Max Horz 7=111(LC 5)
Max Uplift 7=-84(LC 8), 5=-131(LC 5)
Max Grav 7=382(LC 1), 5=415(LC 1)

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

TOP CHORD 2-7=-323/104, 2-3=-294/74
WEBS 3-5=-292/101

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 5=131.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 171 lb down and 155 lb up at 3-7-0, and 71 lb down and 71 lb up at 5-10-12 on top chord, and 62 lb down at 3-7-0, and 41 lb down at 5-10-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 4=-62(B) 5=-25(B) 6=-42(B) 3=-77(B)



December 22, 2021

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

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



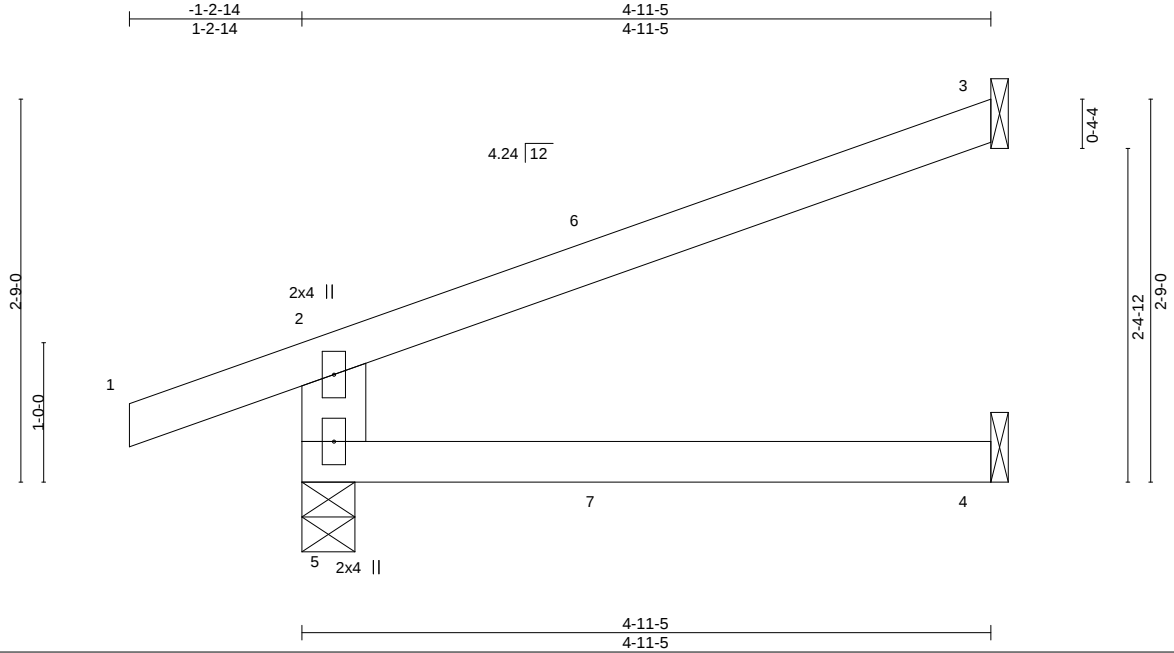
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J14	Diagonal Hip Girder	1	1		I49387900
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:00 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-pHJYryx9kyYthjOZ0lxE9l6hW7zoTKUJbWfSzkY6hv1



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.35	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	-0.05	4-5	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.02	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-R	Wind(LL)	0.03	4-5	>999	240		
	Code IRC2018/TPI2014							Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=82(LC 4)
Max Uplift 5=97(LC 4), 3=71(LC 8)
Max Grav 5=327(LC 1), 3=140(LC 1), 4=86(LC 3)

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

TOP CHORD 2-5=-288/127

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 30 lb up at 2-2-7, and 69 lb down and 30 lb up at 2-2-7 on top chord, and 5 lb down and 10 lb up at 2-2-7, and 5 lb down and 10 lb up at 2-2-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



December 22, 2021

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

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



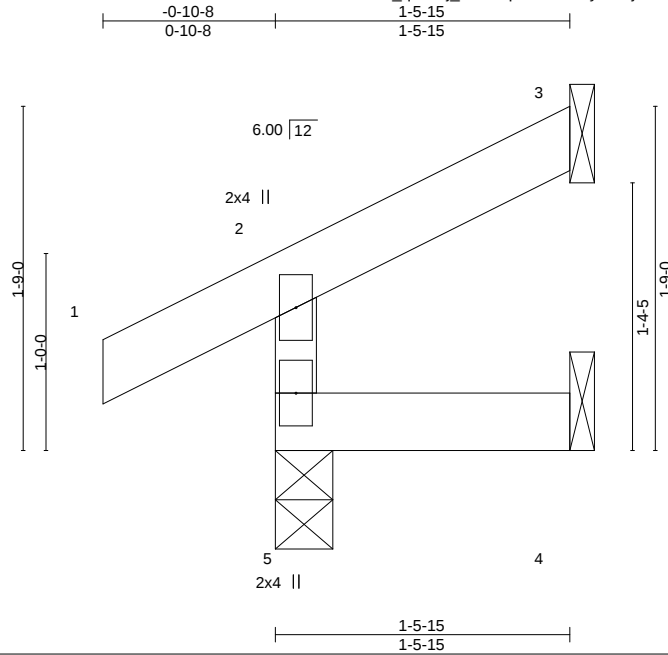
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387901
B210101	J15	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:01 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-HTtx2HxnVGgkJsma?SThWfwgXL?CnkSq9?P5my6hv0



Scale = 1:11.7

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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-5-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=43(LC 5)
Max Uplift 5=-16(LC 8), 3=-27(LC 8), 4=-2(LC 8)
Max Grav 5=155(LC 1), 3=27(LC 1), 4=26(LC 3)

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

NOTES-

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



December 22, 2021

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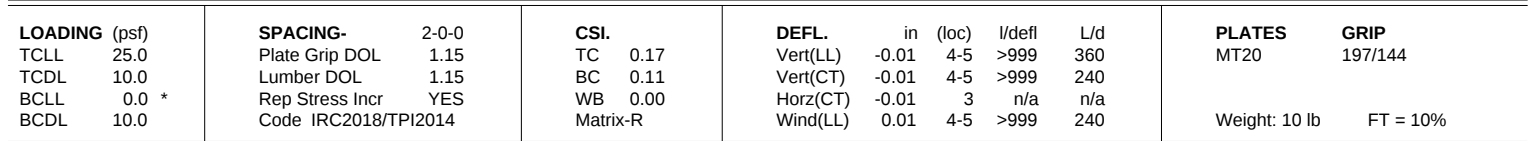
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

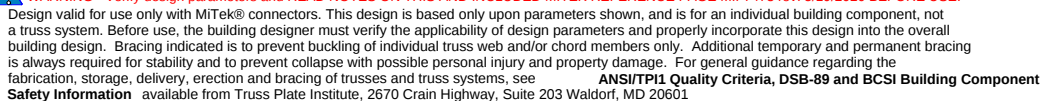
Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:01 2021 Page 1
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-0-10-8 3-7-0
0-10-8 3-7-0
Scale = 1:16.9



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



December 22, 2021

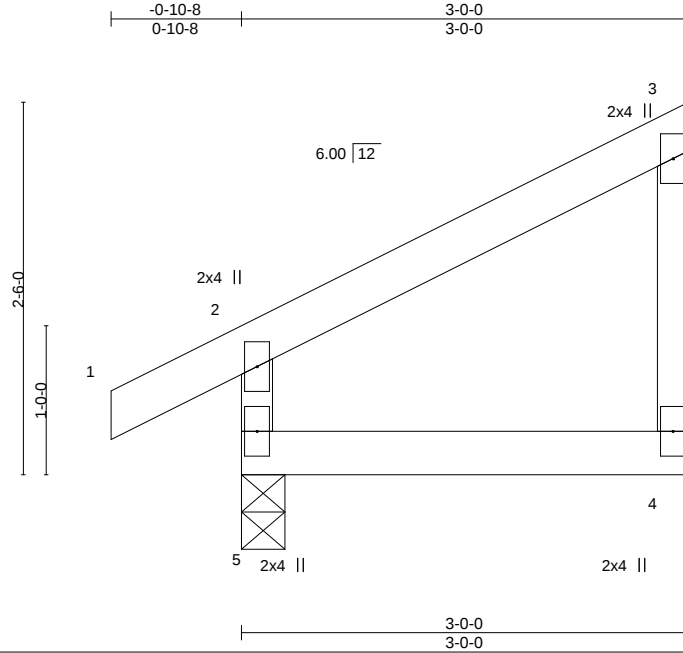


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387903
B210101	J17	Jack-Closed	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:02 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHsj-IgRJGdyPGaobw0Yy7j_iEjB55xhaxE_c3pkydDy6hv?



LOADING (psf)	SPACING-	2'-0"	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 4=Mechanical
Max Horz 5=96(LC 5)
Max Uplift 5=-35(LC 8), 4=-36(LC 5)
Max Grav 5=206(LC 1), 4=114(LC 1)

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

NOTES-

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



December 22, 2021

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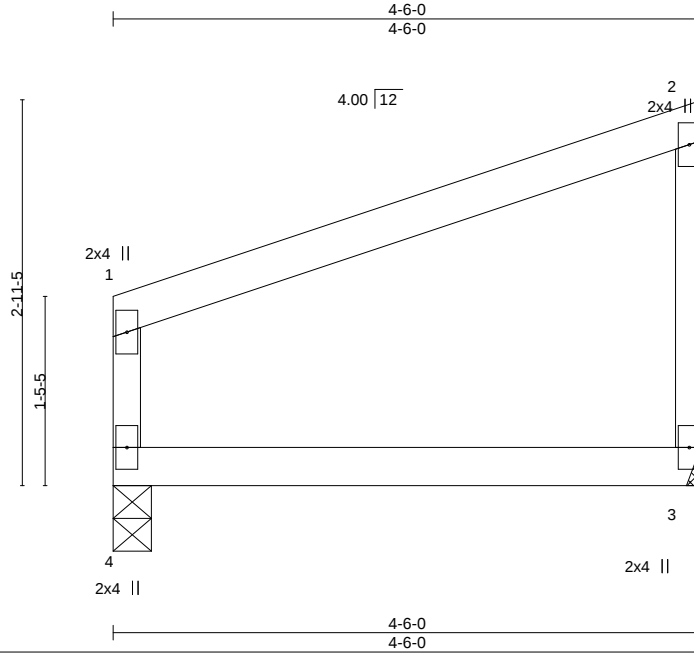
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J18	Jack-Closed	1	1		I49387904

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:02 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOhsj-IgRJGdyPGaobw0Yy7j_iEjB2FxAxE_c3pkydDy6hv?



Scale = 1:17.6

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.27	Vert(LL)	-0.02	3-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03	3-4	>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)	0.01	3-4	>999	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=0-3-8, 3=Mechanical
Max Horz 4=109(LC 5)
Max Uplift 4=-30(LC 4), 3=-44(LC 8)
Max Grav 4=193(LC 1), 3=193(LC 3)

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

NOTES-

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



December 22, 2021

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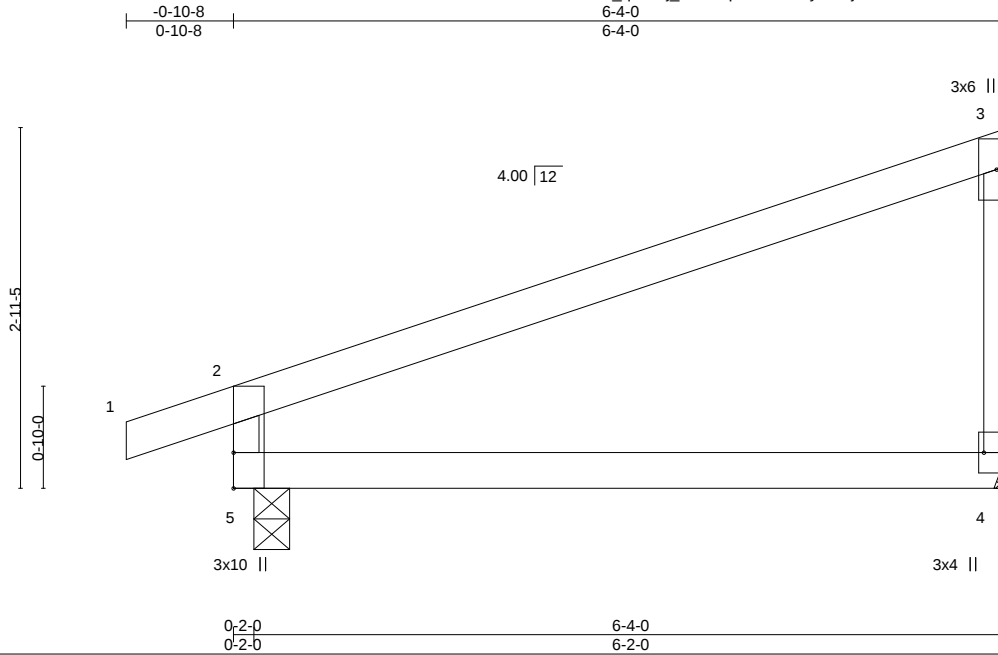
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387905
B210101	J19	Jack-Closed	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:03 2021 Page 1

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Scale = 1:18.8

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.53	Vert(LL)	-0.06	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.12	4-5	>605	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 4=Mechanical
Max Horz 5=120(LC 5)
Max Uplift 5=-86(LC 4), 4=-61(LC 8)
Max Grav 5=350(LC 1), 4=270(LC 1)

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

TOP CHORD 2-5=-303/131

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 22,2021

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

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

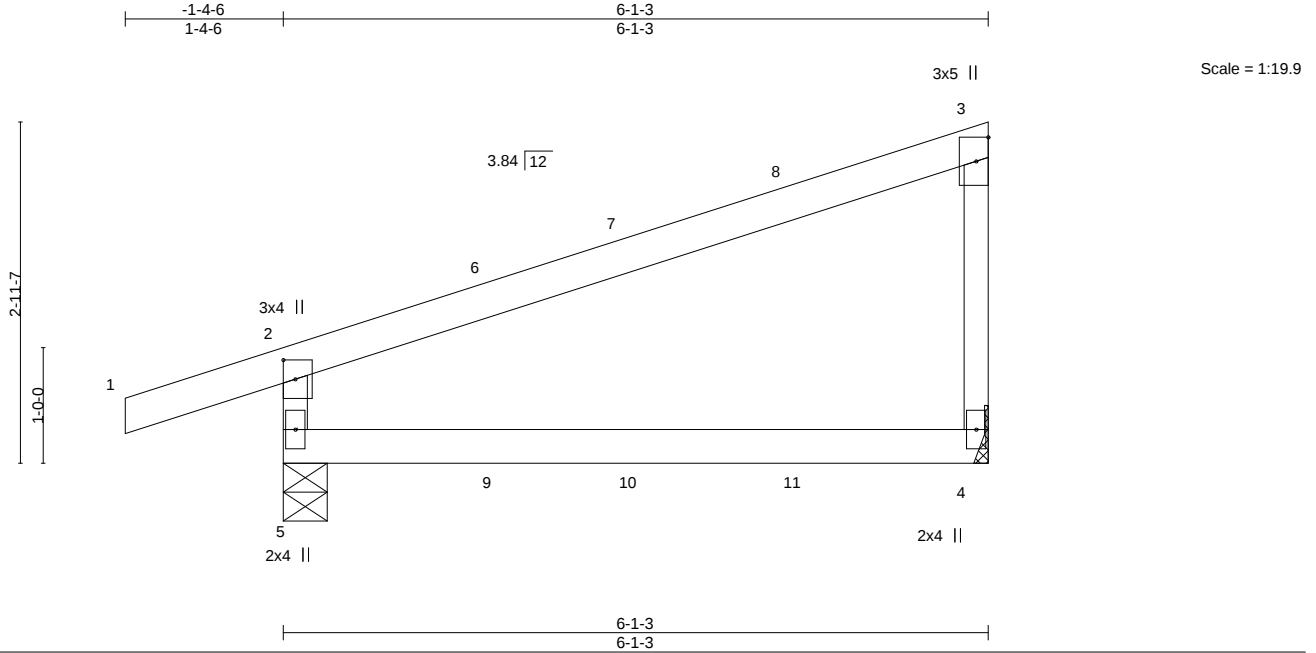


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J20	Diagonal Hip Girder	1	1		I49387906

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:04 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHSj-i2Y3hJ_goB2JAKhKF70AJ8HJjkJ?P8TuW7D3h5y6huz



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05 4-5 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.10 4-5 >686 240				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00 4 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02 4-5 >999 240				
								Weight: 18 lb		FT = 10%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-9, 4=Mechanical
Max Horz 5=122(LC 5)
Max Uplift 5=-120(LC 4), 4=-70(LC 8)
Max Grav 5=381(LC 1), 4=254(LC 1)

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

TOP CHORD 2-5=-332/155

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=120.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 18 lb up at 1-10-11, and 79 lb down and 48 lb up at 3-0-14, and 79 lb down and 60 lb up at 4-5-15 on top chord, and 6 lb down and 11 lb up at 1-10-11, and 7 lb down at 3-0-14, and 14 lb down at 4-5-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 9=2(B) 10=-1(F) 11=-2(B)



December 22, 2021

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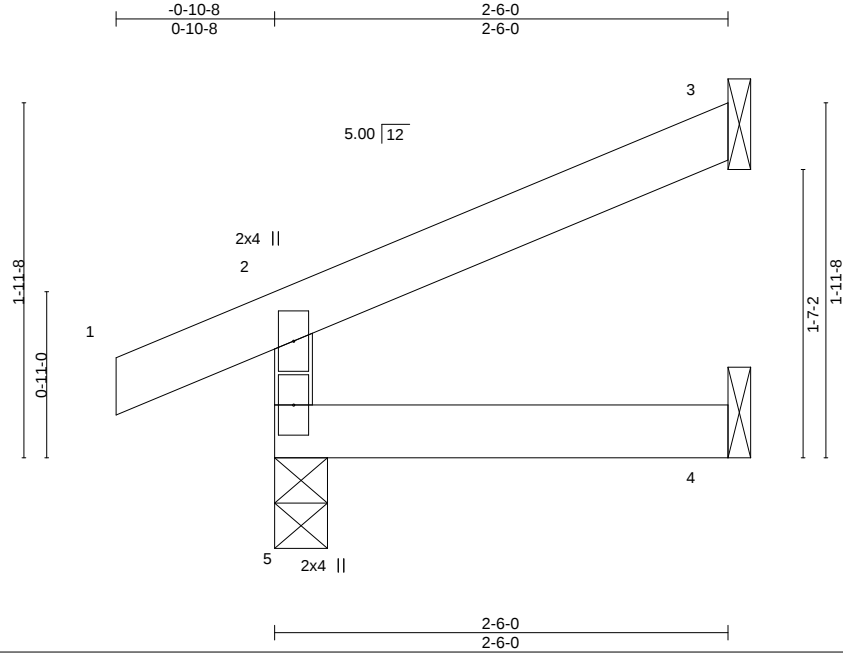
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J21	Jack-Open	2	1		I49387907
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:04 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-i2Y3hJ_goB2JAKhKF70AJ8HQwkNHP8TuW7D3h5y6huz



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	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	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: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=49(LC 5)
Max Uplift 5=-27(LC 4), 3=-41(LC 8)
Max Grav 5=188(LC 1), 3=67(LC 1), 4=44(LC 3)

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

NOTES-

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



December 22, 2021

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



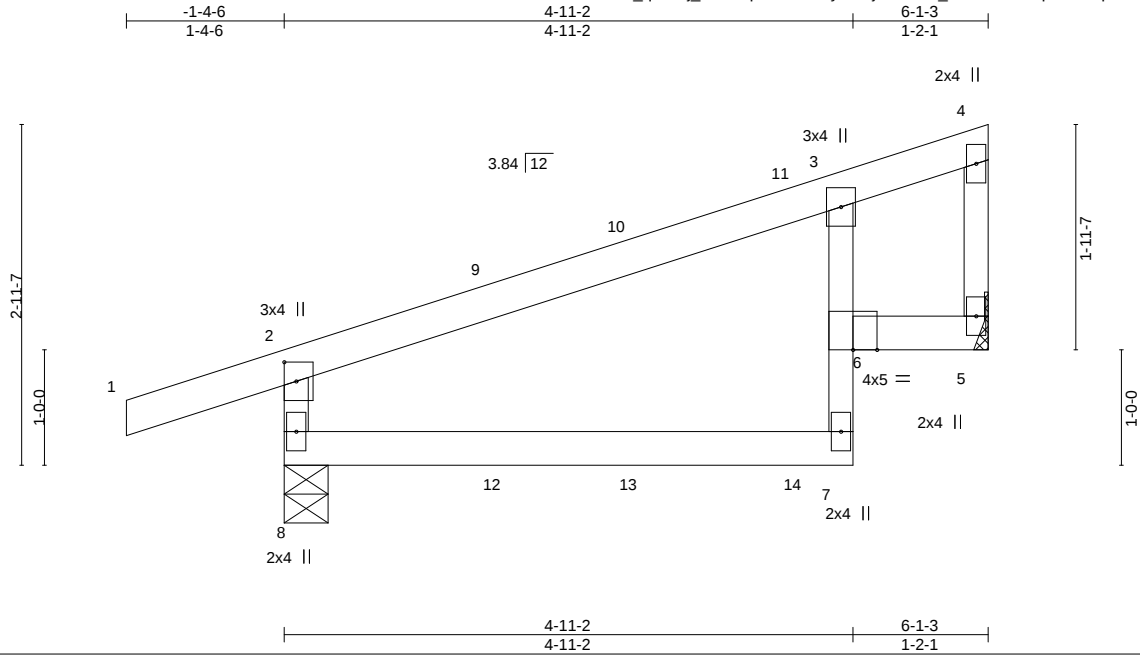
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387908
B210101	J22	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:05 2021 Page 1

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Scale = 1:20.0

Plate Offsets (X,Y)-- [2:0-2-0,0-1-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.02 7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.04 7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02 6	>999	240	Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-4-9, 5=Mechanical
 Max Horz 8=105(LC 5)
 Max Uplift 8=118(LC 4), 5=71(LC 8)
 Max Grav 8=381(LC 1), 5=254(LC 1)

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

TOP CHORD 2-8=335/144

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 8=118.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 18 lb up at 1-10-11, and 79 lb down and 48 lb up at 3-0-14, and 79 lb down and 60 lb up at 4-5-15 on top chord, and 6 lb down and 11 lb up at 1-10-11, and 7 lb down at 3-0-14, and 14 lb down at 4-5-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
 Concentrated Loads (lb)
 Vert: 12=2(F) 13=-1(B) 14=-2(F)



December 22, 2021

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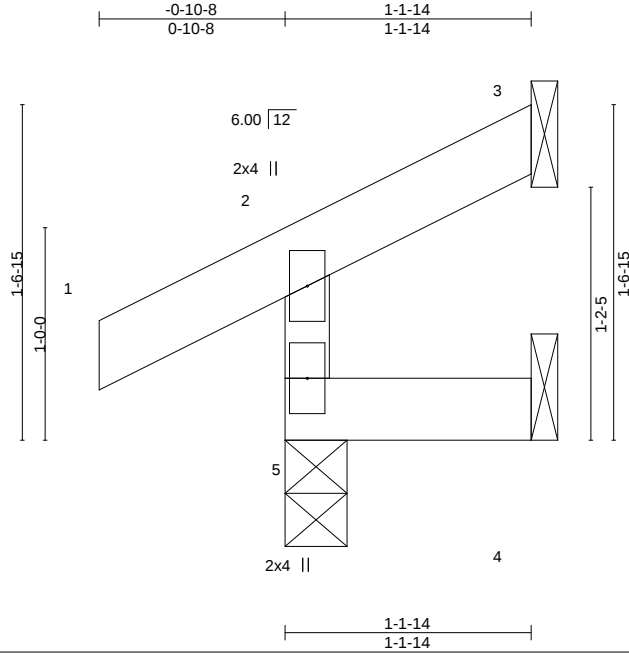


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J23	Jack-Open	2	1		I49387909
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:06 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHsj-eRgq5?wKol1PerjMY2eOZMmPY3Dt2zBzRiAl_y6hux



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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-1-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=38(LC 5)
Max Uplift 5=-17(LC 8), 3=-19(LC 8), 4=-5(LC 5)
Max Grav 5=148(LC 1), 3=10(LC 15), 4=19(LC 3)

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

NOTES-

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



December 22, 2021

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

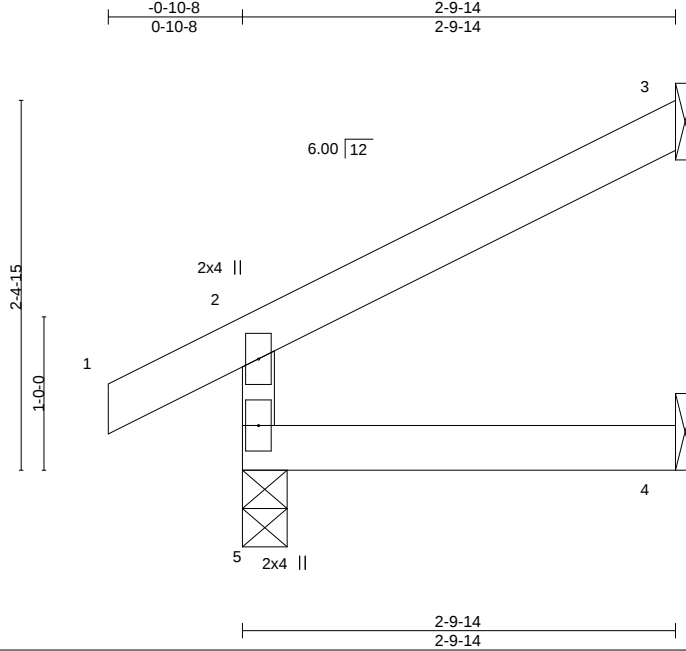


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387910
B210101	J24	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:06 2021 Page 1
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Scale = 1:15.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=61(LC 8)
Max Uplift 5=-18(LC 8), 3=-53(LC 8)
Max Grav 5=201(LC 1), 3=79(LC 1), 4=51(LC 3)

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

NOTES-

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



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



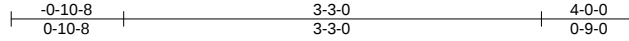
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J25	Jack-Open	4	1		I49387911

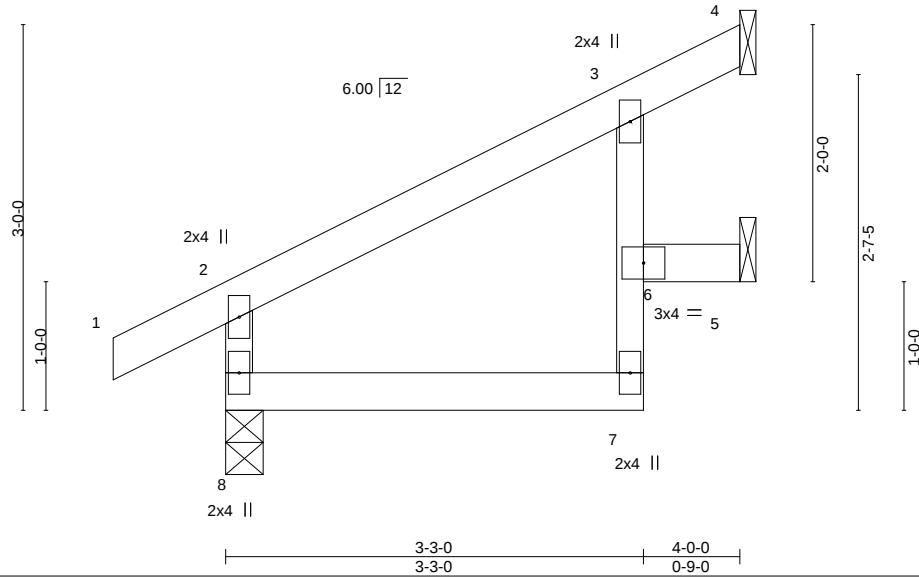
Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:17.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.11	Vert(LL) -0.01	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.15	Vert(CT) -0.01	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01	6	>999	240		

Weight: 13 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=85(LC 8)
Max Uplift 8=-22(LC 8), 4=-11(LC 8), 5=-55(LC 8)
Max Grav 8=250(LC 1), 4=63(LC 1), 5=100(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 4, 5.
- 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.



December 22, 2021

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

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

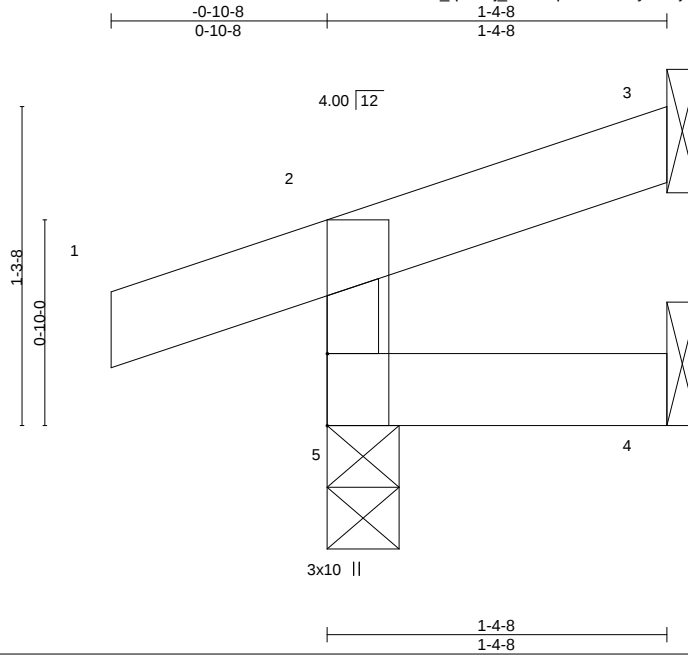


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J27	Jack-Open	1	1		I49387913

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:08 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHsj-apoaWh1AsPYlex?6Uz56T_R7xMkLyTURIBHqsy6huv



Scale = 1:9.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-4-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=31(LC 5)
Max Uplift 5=-54(LC 4), 3=-17(LC 8)
Max Grav 5=152(LC 1), 3=21(LC 1), 4=23(LC 3)

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

NOTES-

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



December 22, 2021

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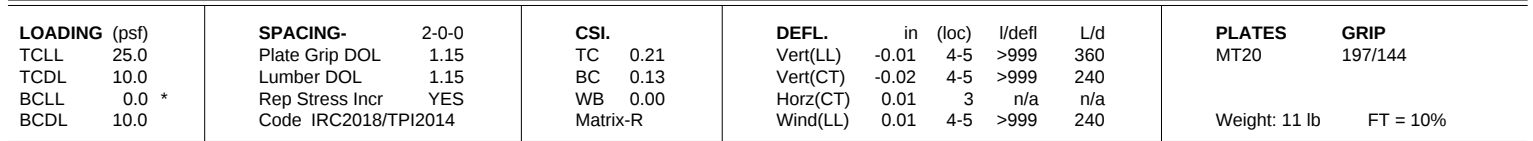
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

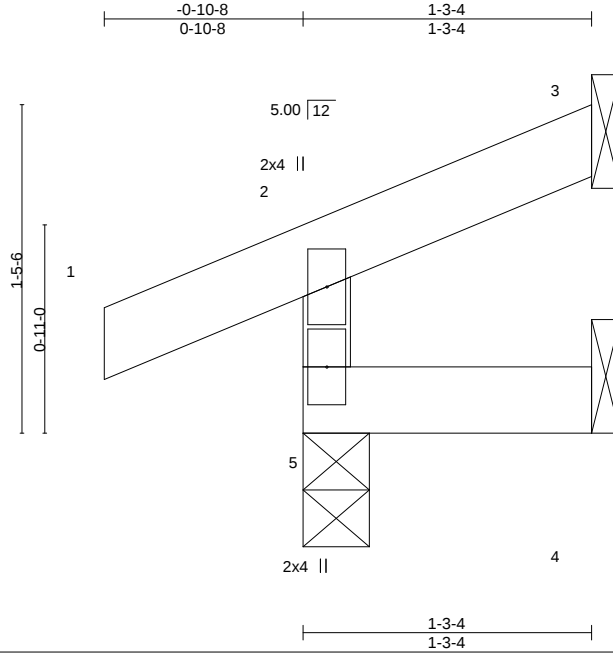
Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:09 2021 Page 1
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 -0-10-8 3-11-4
 0-10-8 3-11-4



Job	Truss	Truss Type	Qty	Ply	104 RR	i49387915
B210101	J29	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:09 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHsj-20Myk12pdjgcG5al2hcL0B_Hgl4z4PjegPxqMJy6huu



Scale = 1:10.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-3-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=36(LC 5)
Max Uplift 5=-32(LC 4), 3=-18(LC 8), 4=-2(LC 5)
Max Grav 5=150(LC 1), 3=15(LC 1), 4=21(LC 3)

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

NOTES-

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



December 22, 2021

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

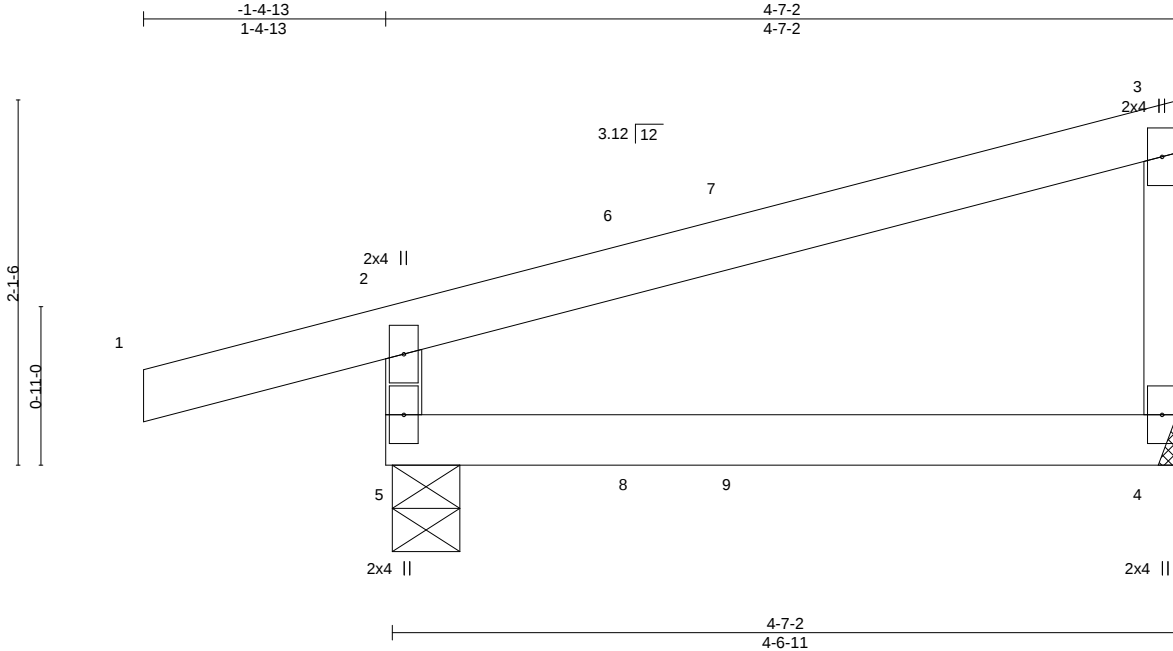


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387916
B210101	J30	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:10 2021 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.25	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(LL) -0.02 4-5 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.03 4-5 >999 240		
BCDL 10.0	Rep Stress Incr NO	Matrix-R	Horz(CT) -0.00 4 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.00 4-5 >999 240	Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-11, 4=Mechanical
Max Horz 5=82(LC 22)
Max Uplift 5=-109(LC 4), 4=-41(LC 8)
Max Grav 5=319(LC 1), 4=178(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-282/135

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=109.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 74 lb down and 19 lb up at 1-6-3, and 61 lb down and 18 lb up at 2-1-6 on top chord, and 3 lb down and 2 lb up at 1-6-3, and 4 lb down and 8 lb up at 2-1-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=2(F) 9=2(B)



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J31	Diagonal Hip Girder	1	1		I49387917
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:11 2021 Page 1
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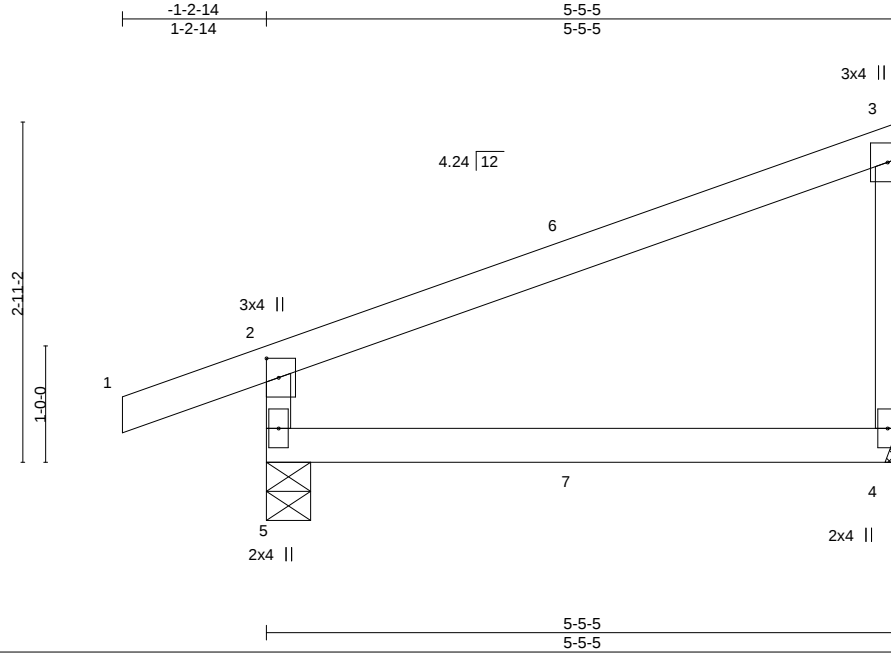


Plate Offsets (X,Y)--		[2:0-2-0,0-1-4]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.41		Vert(LL)	-0.03 4-5	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.25		Vert(CT)	-0.07 4-5	>962	240		
BCLL 0.0 *		Rep Stress Incr	NO	WB 0.00		Horz(CT)	-0.00 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02 4-5	>999	240	Weight: 17 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-9, 4=Mechanical
Max Horz 5=122(LC 5)
Max Uplift 5=-106(LC 4), 4=-62(LC 8)
Max Grav 5=341(LC 1), 4=223(LC 1)

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

TOP CHORD 2-5=-298/135

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=106.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 71 lb down and 39 lb up at 2-8-7, and 71 lb down and 39 lb up at 2-8-7 on top chord, and 4 lb down and 10 lb up at 2-8-7, and 4 lb down and 10 lb up at 2-8-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



December 22, 2021

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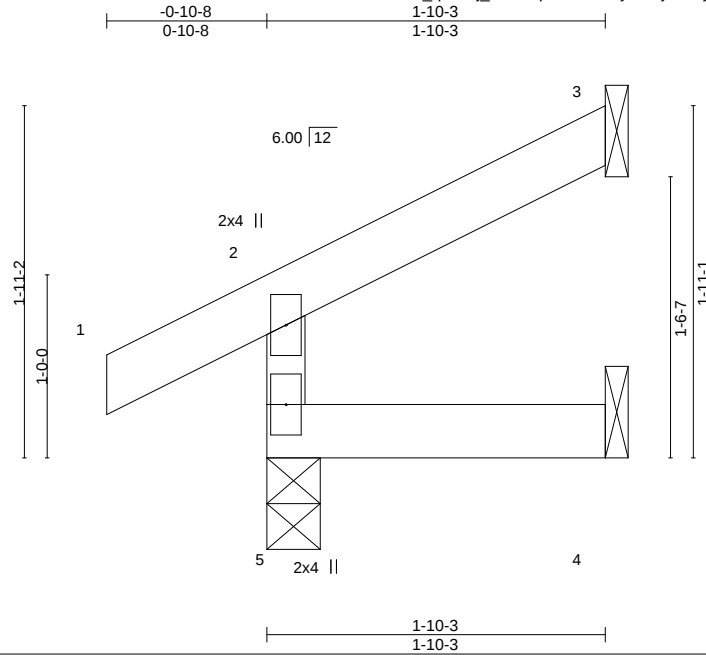
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J32	Jack-Open	2	1		I49387918
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:11 2021 Page 1

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Scale = 1:12.6

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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=47(LC 5)
Max Uplift 5=17(LC 8), 3=35(LC 8)
Max Grav 5=166(LC 1), 3=43(LC 1), 4=33(LC 3)

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

NOTES-

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



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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	104 RR	i49387919
B210101	J33	Jack-Open	10	1	Job Reference (optional)	

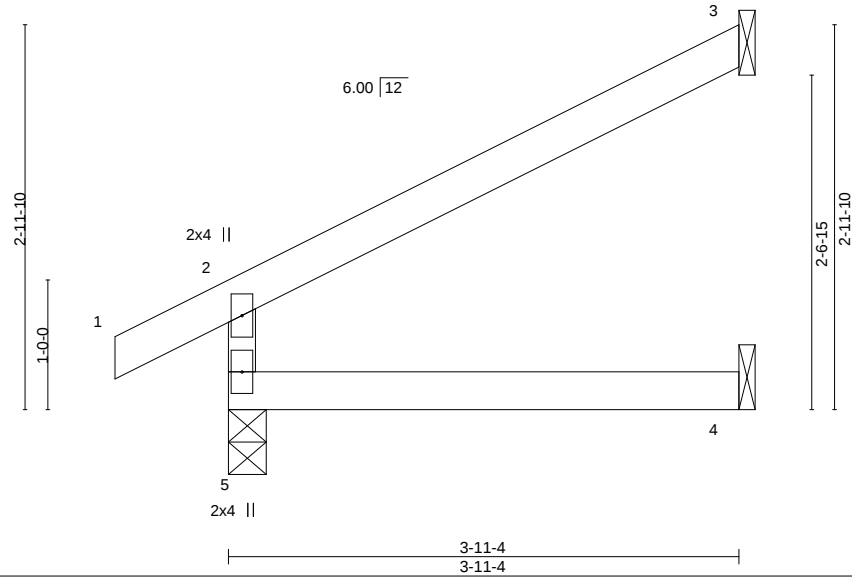
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:12 2021 Page 1

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-0-10-8
0-10-8
3-11-4
3-11-4

Scale = 1:17.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

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

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.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=84(LC 8)
Max Uplift 5=-21(LC 8), 3=-72(LC 8)
Max Grav 5=247(LC 1), 3=118(LC 1), 4=72(LC 3)

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

NOTES-

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



December 22, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

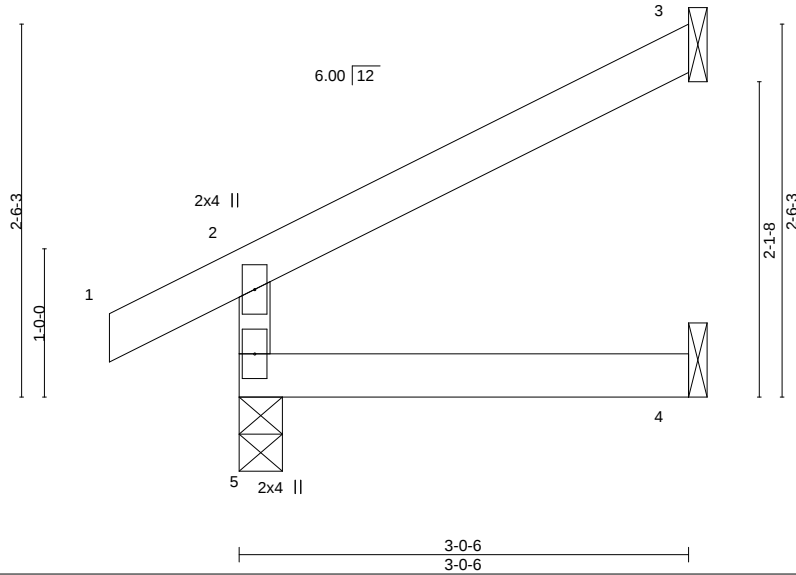
Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J34	Jack-Open	1	1		I49387920
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:12 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-Tb15M24hve2A7Zltjp92eqcoDz5IHmS4MN9Uzdy6hur
3-0-6
3-0-6

Scale = 1:15.5



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.11	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=65(LC 8)
Max Uplift 5=-19(LC 8), 3=-56(LC 8)
Max Grav 5=209(LC 1), 3=87(LC 1), 4=55(LC 3)

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

NOTES-

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



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

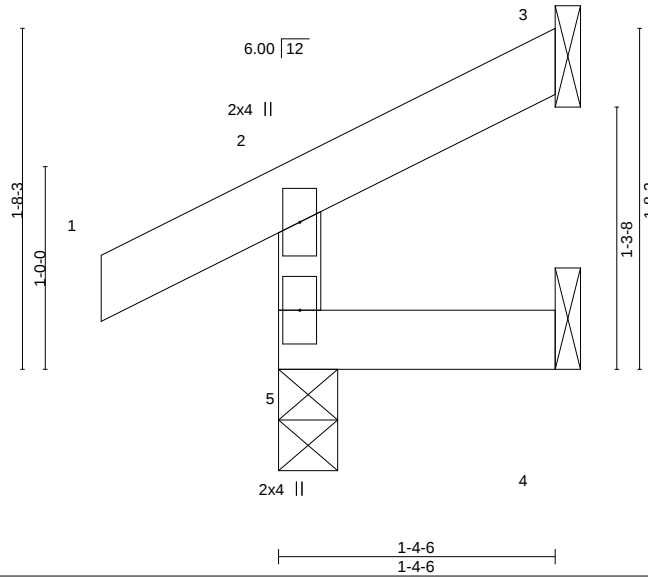
Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J35	Jack-Open	1	1		I49387921
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:13 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHSj-xnbTZ05JgyB1it3HWgHA18zeNSq0DiDa1v2V4y6huq

-0-10-8 1-4-6
0-10-8 1-4-6

Scale = 1:11.4



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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-4-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=41(LC 5)
Max Uplift 5=-16(LC 8), 3=-24(LC 8), 4=-3(LC 5)
Max Grav 5=152(LC 1), 3=20(LC 1), 4=23(LC 3)

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

NOTES-

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



December 22, 2021

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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	104 RR	i49387922
B210101	J36	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:14 2021 Page 1
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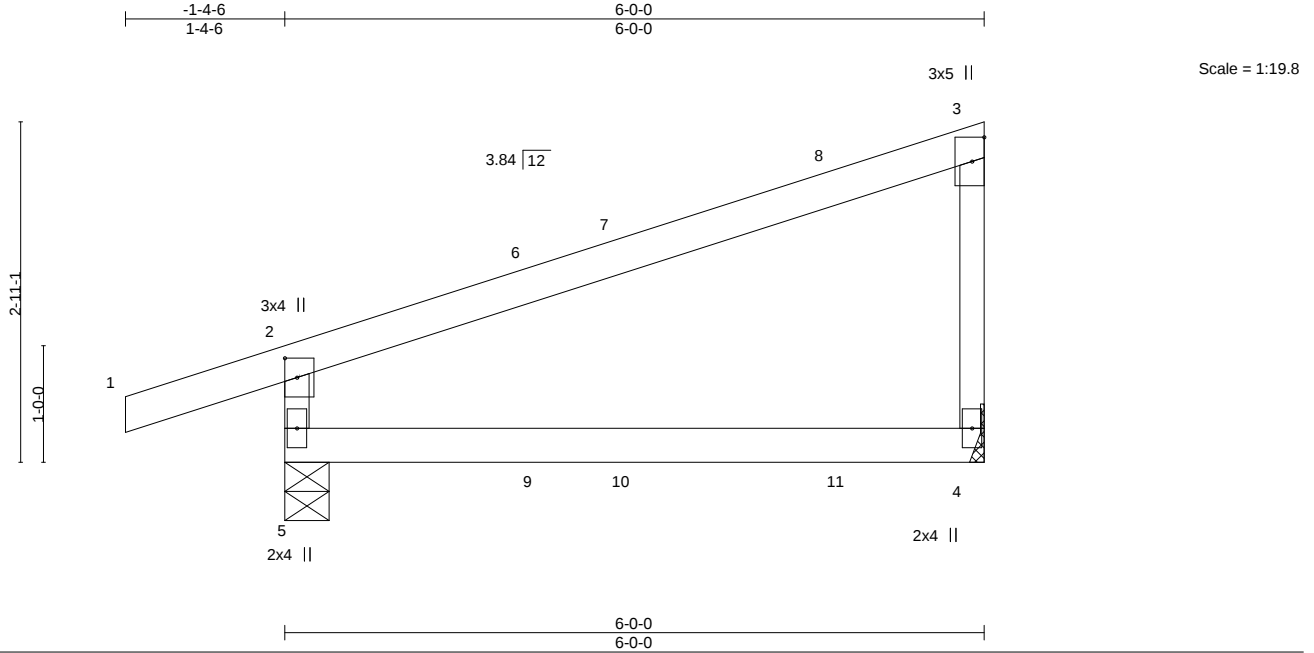


Plate Offsets (X,Y)-- [2:0-2-0,0-1-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	-0.05 4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.10 4-5	>704	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00 4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02 4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-9, 4=Mechanical
Max Horz 5=120(LC 5)
Max Uplift 5=-118(LC 4), 4=-75(LC 8)
Max Grav 5=378(LC 1), 4=256(LC 1)

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

TOP CHORD 2-5=-330/155

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=118.
- 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 25 lb up at 2-2-9, and 78 lb down and 47 lb up at 2-11-11, and 79 lb down and 62 lb up at 4-9-13 on top chord, and 5 lb down and 10 lb up at 2-2-9, and 6 lb down at 2-11-11, and 18 lb down at 4-9-13 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=-3(F) 9=1(F) 10=-1(B) 11=-7(F)



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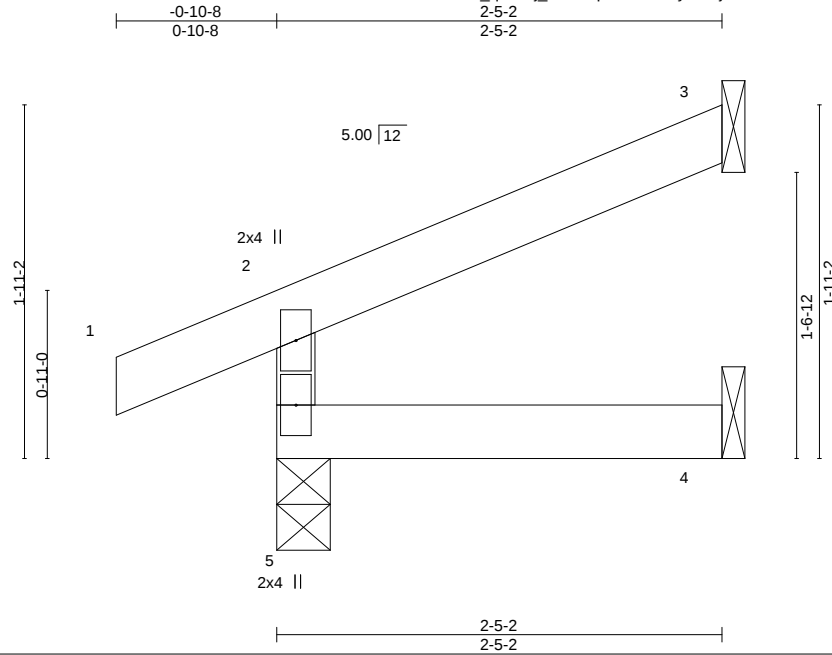
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387923
B210101	J37	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:14 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-Pz9rnk5xRFJuMsSFqEBWjFh8PmnglyNpheb2Wy6hup



Scale = 1:12.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	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: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 5)
Max Uplift 5=-27(LC 4), 3=-40(LC 8)
Max Grav 5=185(LC 1), 3=64(LC 1), 4=43(LC 3)

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

NOTES-

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



December 22, 2021

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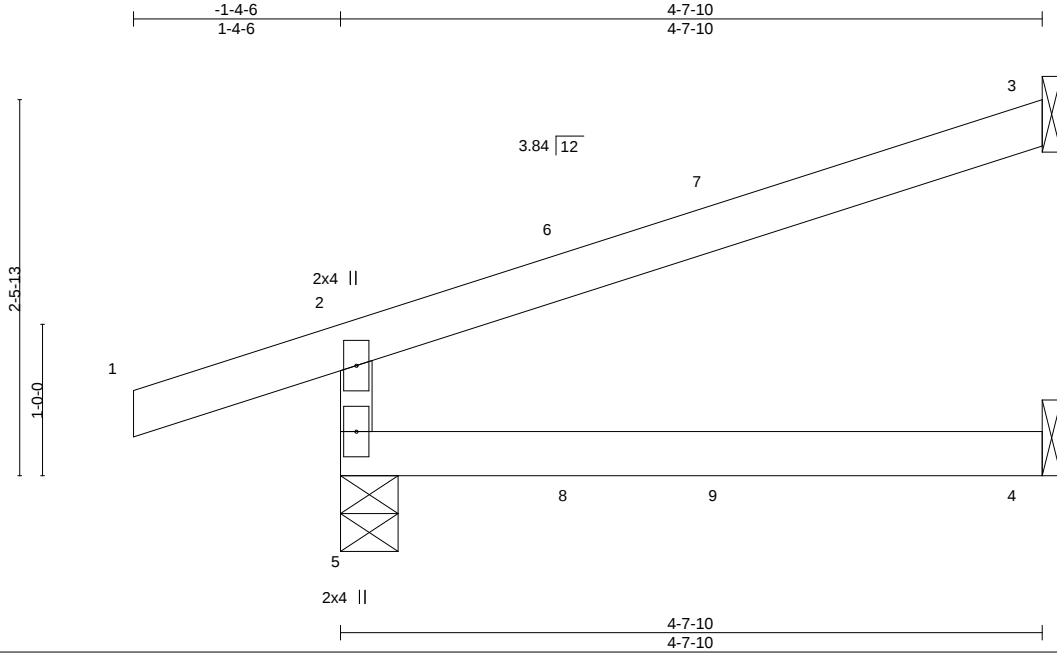


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387924
B210101	J38	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:15 2021 Page 1
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Scale = 1:15.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.33	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.20	Vert(CT)	-0.04	4-5	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-R	Wind(LL)	0.02	4-5	>999	240		
	Code IRC2018/TPI2014							Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=72(LC 4)
Max Uplift 5=-99(LC 4), 3=-68(LC 8)
Max Grav 5=319(LC 1), 3=136(LC 1), 4=85(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-280/126

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 23 lb up at 1-7-5, and 65 lb down and 32 lb up at 2-7-2 on top chord, and 4 lb down and 7 lb up at 1-7-5, and 5 lb down and 10 lb up at 2-7-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 8=2(F) 9=1(B)



December 22, 2021

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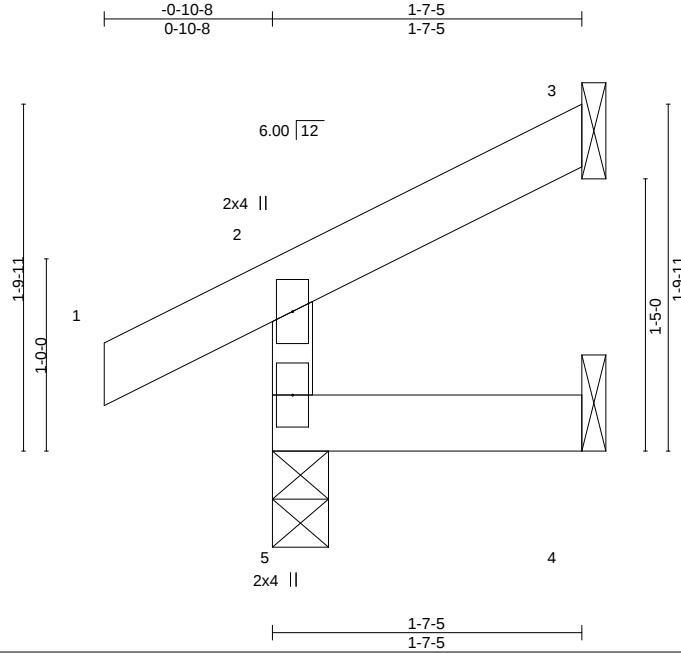


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387926
B210101	J40	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:17 2021 Page 1
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Scale: 1"=1'

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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-7-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=44(LC 5)
Max Uplift 5=-16(LC 8), 3=-30(LC 8), 4=-1(LC 8)
Max Grav 5=158(LC 1), 3=32(LC 1), 4=28(LC 3)

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

NOTES-

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



December 22, 2021

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



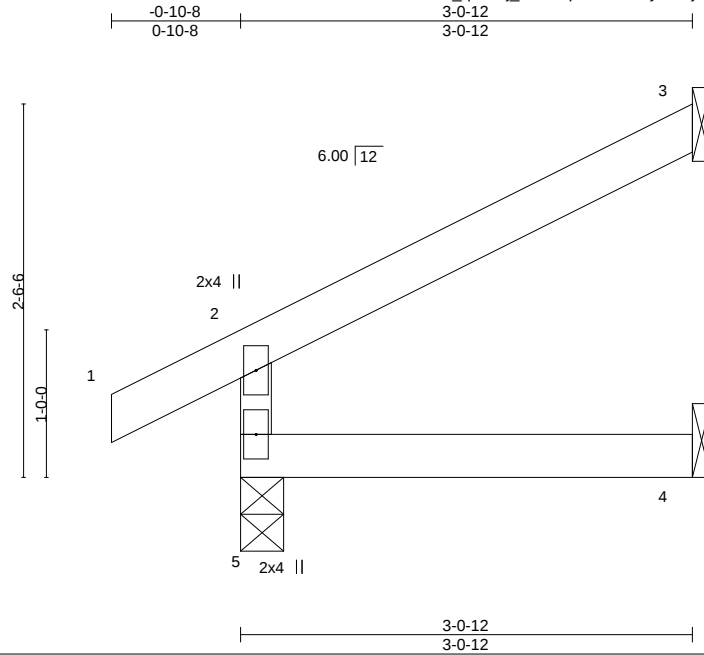
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J41	Jack-Open	2	1		I49387927
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:18 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-HIPMd59SVUpKrUm134GSt5sqfO87hTxykJcpBHy6hul



Scale = 1:15.6

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.11	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240		
									Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=66(LC 8)
Max Uplift 5=-19(LC 8), 3=-57(LC 8)
Max Grav 5=210(LC 1), 3=88(LC 1), 4=56(LC 3)

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

NOTES-

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



December 22, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR
B210101	J42	Jack-Closed Girder	1	1	
					Job Reference (optional)

I49387928

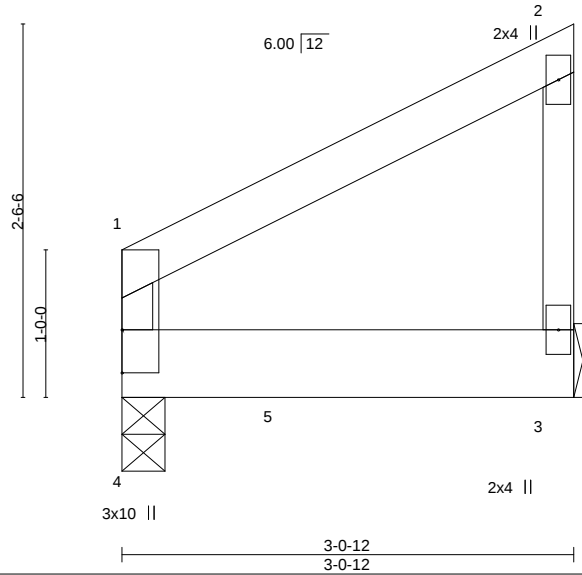
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:19 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-mxykqR94GoxBTdLDnnhQIO_2nQSQwB6zzMMjijy6huk

3-0-12
3-0-12

Scale = 1:15.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.01	3-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	-0.01	3-4	>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	3-4	>999	240		
									Weight: 11 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 4=0-3-8, 3=Mechanical
Max Horz 4=85(LC 5)
Max Uplift 4=-26(LC 8), 3=-43(LC 8)
Max Grav 4=443(LC 1), 3=304(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 490 lb down and 29 lb up at 1-1-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 3-4=-20
Concentrated Loads (lb)
Vert: 5=-490(B)



December 22, 2021

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

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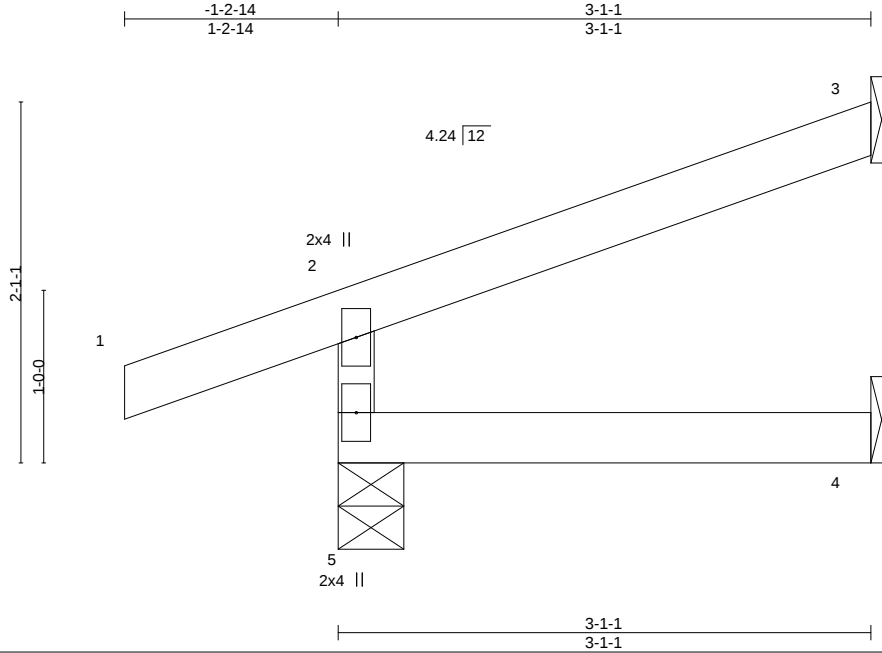


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387929
B210101	J43	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:19 2021 Page 1
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Scale = 1:13.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	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)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=68(LC 7)
Max Uplift 5=-89(LC 6), 3=-57(LC 12), 4=-3(LC 19)
Max Grav 5=104(LC 1), 3=38(LC 1), 4=41(LC 3)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 23 lb down and 8 lb up at -1-2-14, and 23 lb down and 8 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-35(F=-17, B=-17)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-23(F=23, B=23), 2=-2(F=34, B=34)-to-3=-54(F=8, B=8), 5=-0(F=10, B=10)-to-4=-15(F=2, B=2)



December 22, 2021

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



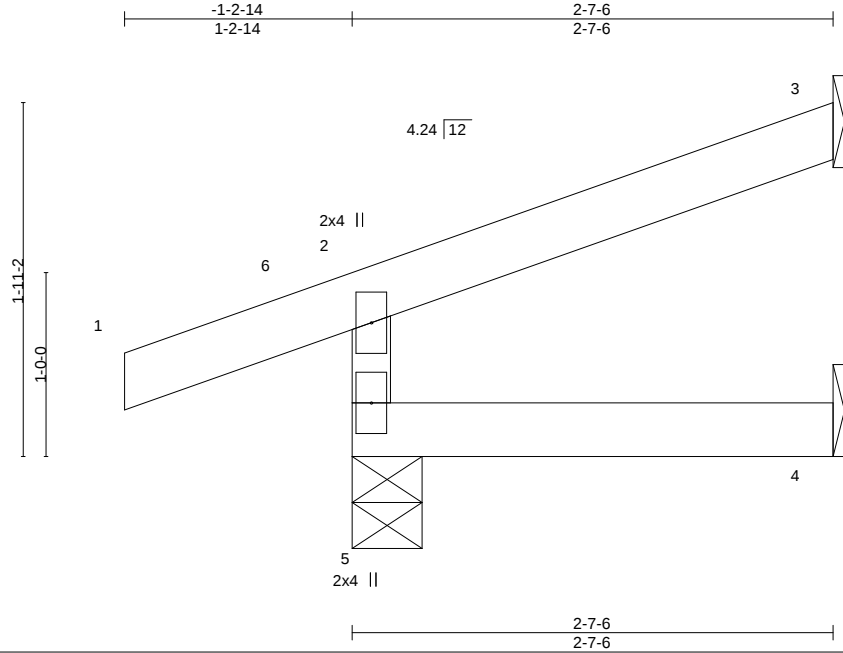
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J44	Diagonal Hip Girder	1	1		I49387930

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:20 2021 Page 1

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Scale = 1:12.5

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.10	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	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 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=63(LC 7)
Max Uplift 5=95(LC 6), 3=47(LC 12), 4=-2(LC 19)
Max Grav 5=85(LC 1), 3=28(LC 1), 4=34(LC 3)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 6 lb up at -1-2-14, and 17 lb down and 6 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-26(F=-13, B=-13)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-6=-18(F=26, B=26), 6=0(F=35, B=35)-to-2=-6(F=32, B=32), 2=-6(F=32, B=32)-to-3=-49(F=10, B=10), 5=-2(F=9, B=9)-to-4=-14(F=3, B=3)



December 22, 2021

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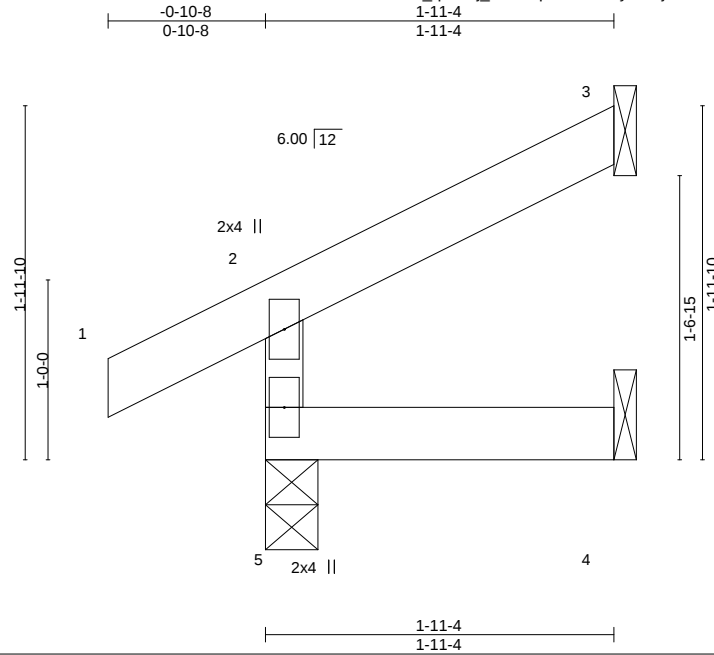
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	J45	Jack-Open	5	1		I49387931

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:20 2021 Page 1

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Scale = 1:12.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=48(LC 5)
Max Uplift 5=-17(LC 8), 3=-37(LC 8)
Max Grav 5=169(LC 1), 3=47(LC 1), 4=35(LC 3)

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

NOTES-

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



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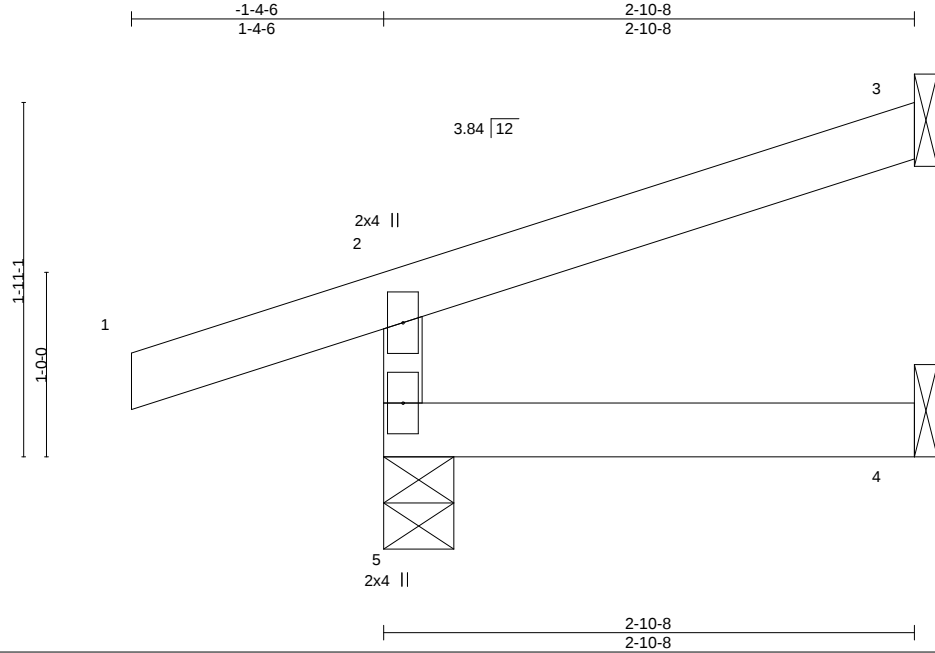


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387932
B210101	J46	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:21 2021 Page 1
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=61(LC 7)
Max Uplift 5=-95(LC 6), 3=-52(LC 12), 4=-3(LC 19)
Max Grav 5=109(LC 1), 3=27(LC 1), 4=37(LC 3)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 24 lb down and 9 lb up at -1-4-6, and 24 lb down and 9 lb up at -1-4-6 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-36(F=-18, B=-18)
Trapezoidal Loads (plf)
Vert: 1=-0(F=35, B=35)-to-2=-26(F=22, B=22), 2=-2(F=34, B=34)-to-3=-50(F=10, B=10), 5=-0(F=10, B=10)-to-4=-14(F=3, B=3)



December 22, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387933
B210101	K1	Roof Special Structural Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:24 2021 Page 1

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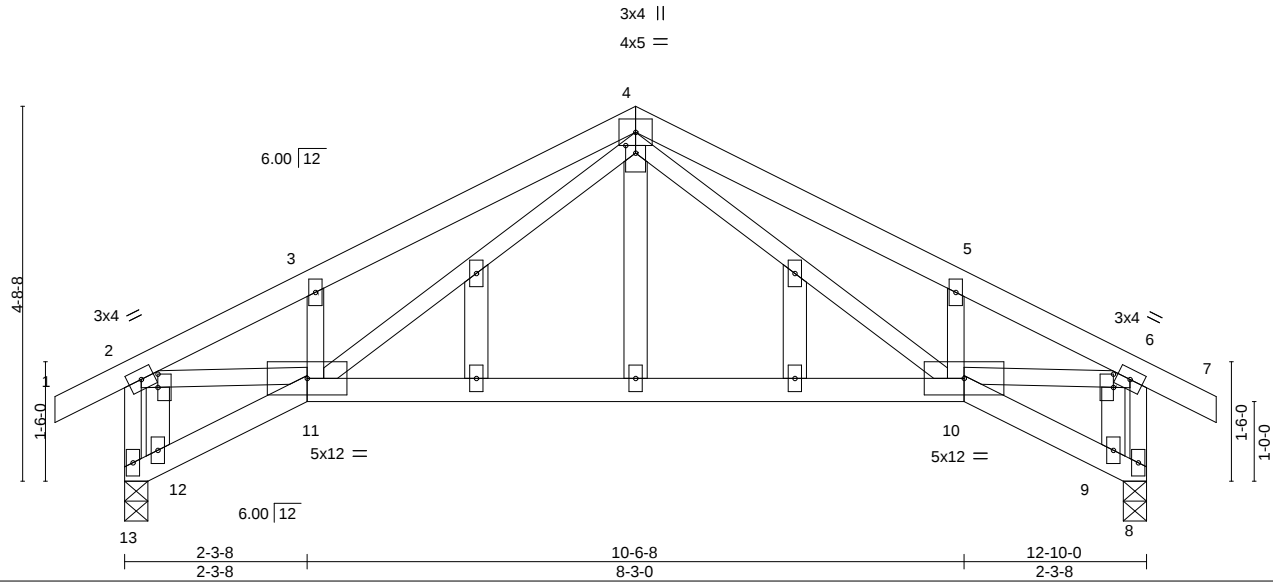


Plate Offsets (X,Y)-- [2:0-2-0,0-0-0], [4:0-1-2,0-1-8], [6:0-2-0,0-0-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.20	Vert(LL) -0.16	10-11	>912	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.54	Vert(CT) -0.33	10-11	>436	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.24	Horz(CT) 0.04	9	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.03	10-11	>999	240		Weight: 58 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 12=0-3-8, 9=0-3-8
Max Horz 12=97(LC 7)
Max Uplift 12=-92(LC 8), 9=-92(LC 9)
Max Grav 12=637(LC 1), 9=637(LC 1)

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

TOP CHORD 2-13=-527/84, 2-3=-747/84, 3-4=-780/170, 4-5=-780/157, 5-6=-747/71, 6-8=-527/76
BOT CHORD 10-11=-10/431
WEBS 4-10=-74/324, 6-10=-40/693, 4-11=-83/324, 2-11=-52/693

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 12, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 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.



December 22, 2021

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

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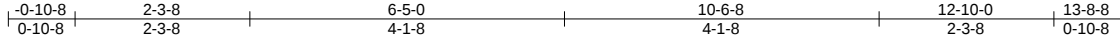
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	K2	Roof Special	2	1		I49387934

Wheeler Lumber, Waverly, KS - 66871,

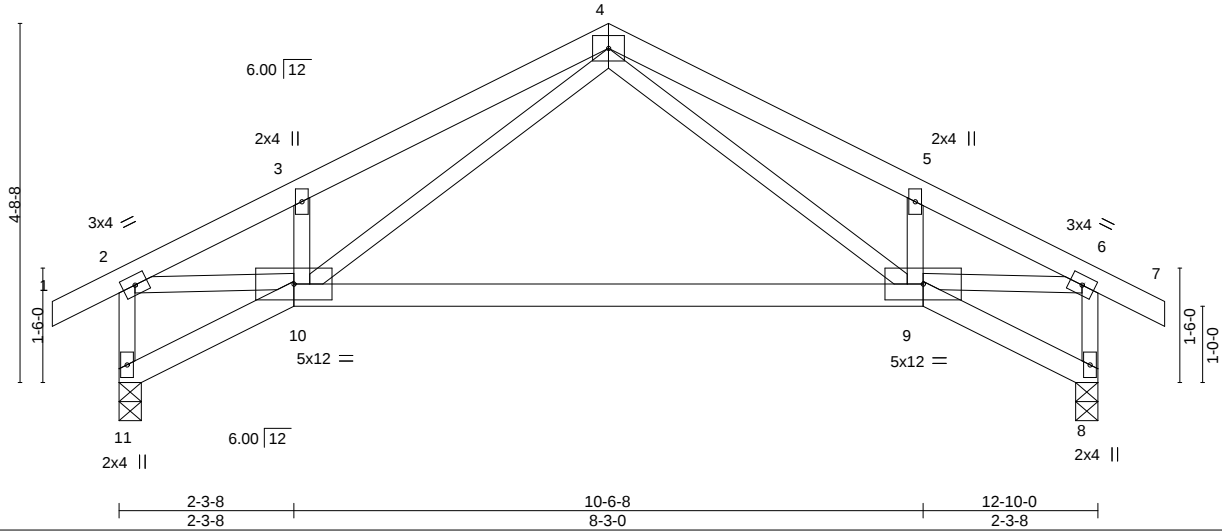
8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:25 2021 Page 1

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4x5 =

Scale = 1:30.2



LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.21		Vert(LL)	-0.15	9-10	>979	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.54		Vert(CT)	-0.32	9-10	>472	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28		Horz(CT)	0.04	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 50 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-8-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 8=0-3-8
Max Horz 11=97(LC 7)
Max Uplift 11=-90(LC 8), 8=-90(LC 9)
Max Grav 11=637(LC 1), 8=637(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-11=-635/99, 2-3=-942/113, 3-4=-970/198, 4-5=-970/182, 5-6=-942/96, 6-8=-635/90
BOT CHORD 9-10=-19/505
WEBS 4-9=-94/442, 6-9=-56/817, 4-10=-105/442, 2-10=-70/817

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 22, 2021

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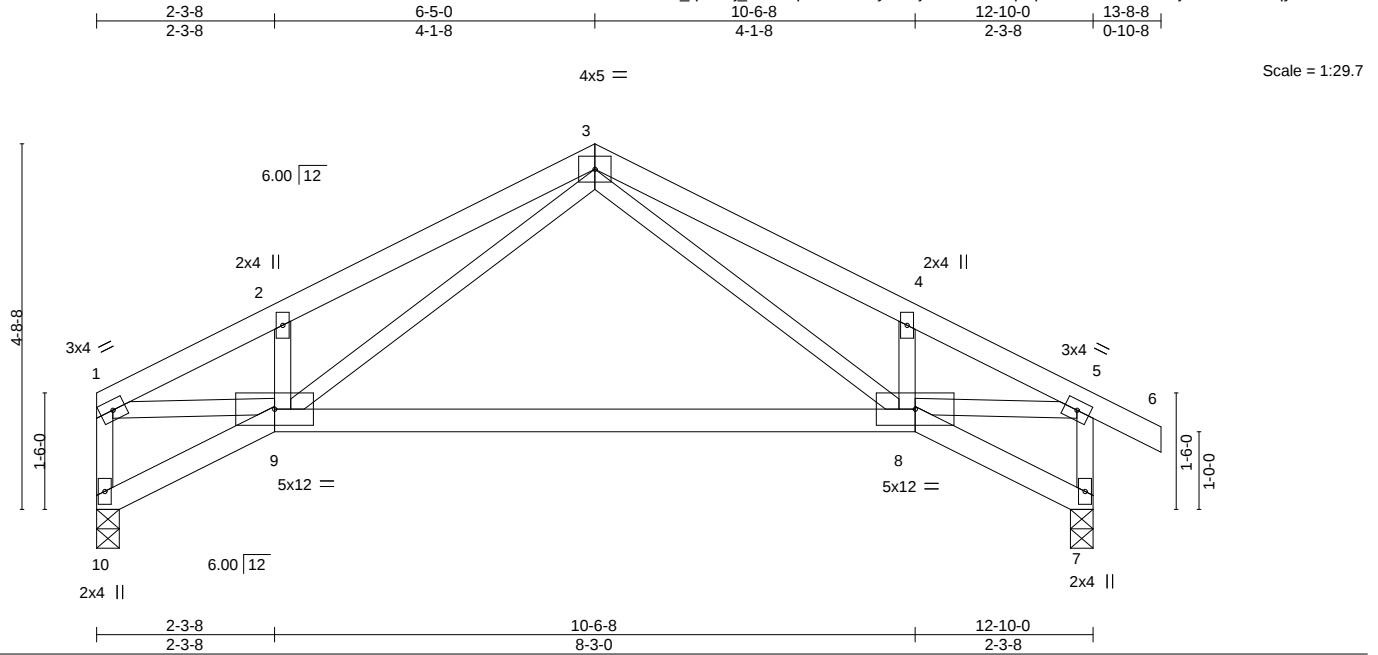


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B210101	Truss K3	Truss Type Roof Special	Qty 2	Ply 1	104 RR	i49387935
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:26 2021 Page 1
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.21	Vert(LL)	-0.15	8-9	>979	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(CT)	-0.32	8-9	>472		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.29	Horz(CT)	0.04	7	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.02	8-9	>999		
	Code IRC2018/TPI2014						Weight: 48 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
Max Horz 10=-100(LC 4)
Max Uplift 10=-68(LC 8), 7=-90(LC 9)
Max Grav 10=565(LC 1), 7=639(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-10=-567/71, 1-2=-961/107, 2-3=-995/195, 3-4=-975/181, 4-5=-947/96, 5-7=-638/90
BOT CHORD 8-9=-17/510
WEBS 3-8=-94/441, 5-8=-55/821, 3-9=-102/464, 1-9=-81/832

NOTES-

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



December 22, 2021

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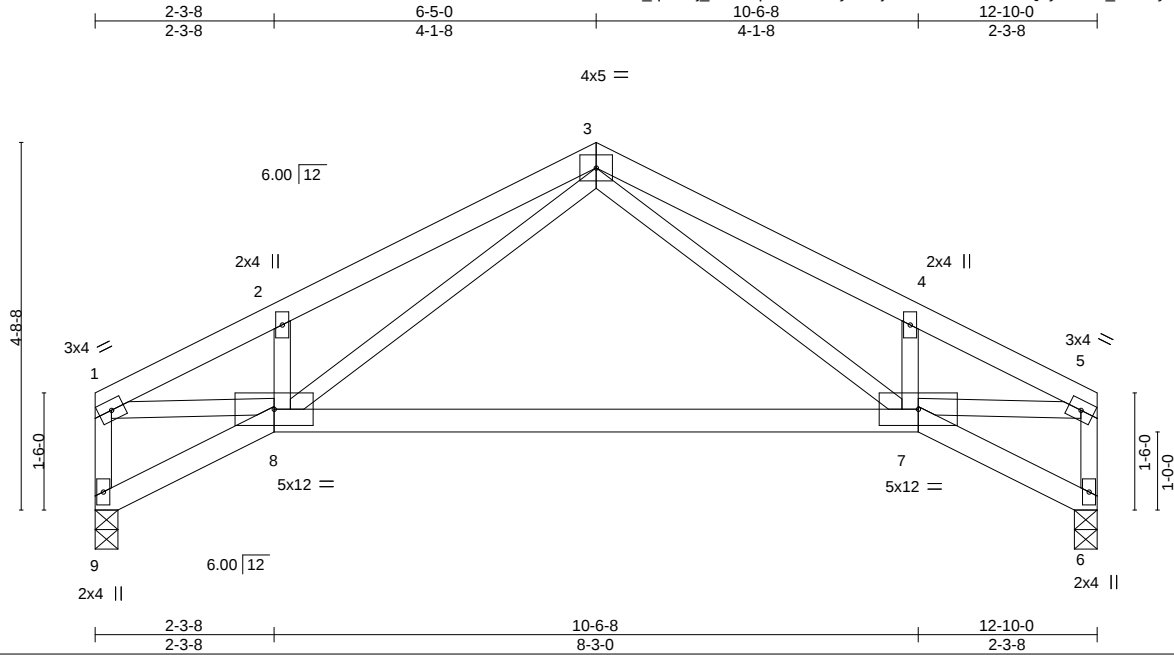
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B210101	Truss K4	Truss Type Roof Special	Qty 1	Ply 1	104 RR	i49387936
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:27 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-XTRmWAG5NFx2QsyI5TwaI_kkt05yIUhHoCIn?Gy6huc



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.21	Vert(LL)	-0.15	7-8	>979	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.54	Vert(CT)	-0.32	7-8	>471	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.29	Horz(CT)	0.04	6	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.02	7-8	>999	240		
	Code IRC2018/TPI2014							Weight: 47 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 9=0-3-8, 6=0-3-8
Max Horz 9=-91(LC 4)
Max Uplift 9=-68(LC 8), 6=-68(LC 9)
Max Grav 9=568(LC 1), 6=568(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-9=-569/74, 1-2=-966/113, 2-3=-1000/201, 3-4=-1000/192, 4-5=-966/104, 5-6=-569/69
BOT CHORD 7-8=-28/515
WEBS 3-7=-101/464, 5-7=-78/836, 3-8=-107/464, 1-8=-86/836

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 9, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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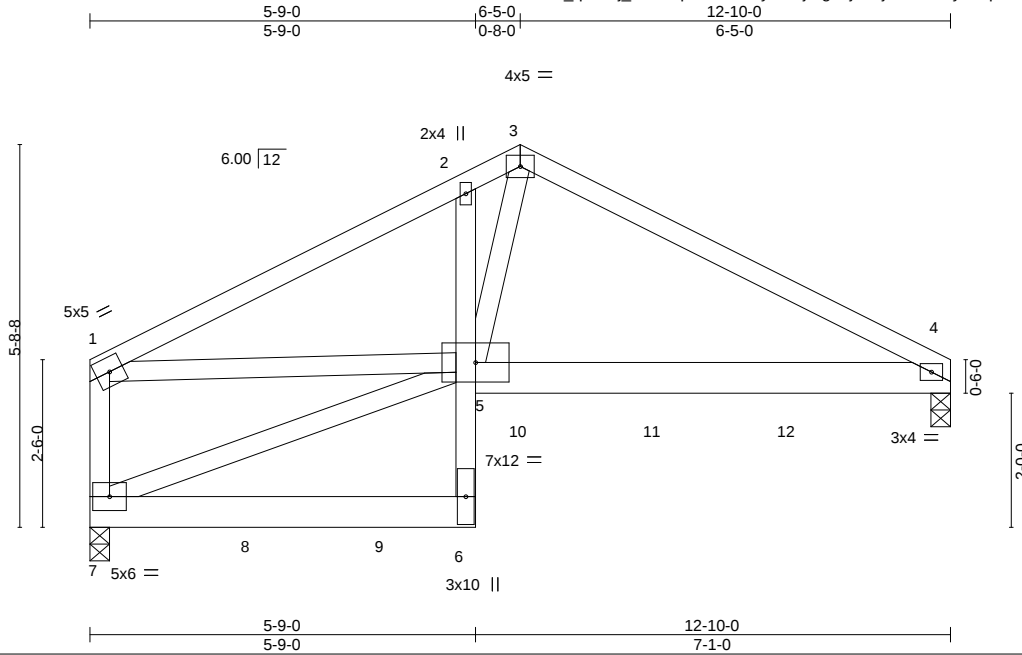
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387937
B210101	K5	Roof Special Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:28 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.40	Vert(LL)	-0.11	4-5	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.48	Vert(CT)	-0.19	4-5	>776	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.35	Horz(CT)	0.03	4	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-S	Wind(LL)	0.06	4-5	>999	240		
	Code IRC2018/TPI2014							Weight: 139 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x6 SP 2400F 2.0E *Except*
 2-6: 2x4 SPF No.2
 WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 4=0-3-8, 7=0-3-8
 Max Horz 7=-90(LC 6)
 Max Uplift 4=-189(LC 9), 7=-229(LC 8)
 Max Grav 4=2662(LC 1), 7=3233(LC 1)

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

TOP CHORD 1-2=-3486/346, 2-3=-3474/395, 3-4=-2937/296, 1-7=-1812/197
 BOT CHORD 5-6=-27/988, 2-5=-267/152, 4-5=-217/2536
 WEBS 3-5=-306/2704, 1-5=-250/2861

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=189, 7=229.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 793 lb down and 54 lb up at 0-1-12, 785 lb down and 40 lb up at 2-5-0, 787 lb down and 67 lb up at 4-5-0, 916 lb down and 207 lb up at 6-5-0, 490 lb down and 32 lb up at 8-5-0, and 509 lb down and 35 lb up at 10-5-0, and 516 lb down and 28 lb up at 12-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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



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Continued on page 2

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	I49387937
B210101	K5	Roof Special Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:28 2021 Page 2
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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-70, 3-4=-70, 6-7=-20, 4-5=-20

Concentrated Loads (lb)

Vert: 4=-502(B) 7=-793(B) 8=-785(B) 9=-787(B) 10=-916(B) 11=-490(B) 12=-494(B)

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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 B210101	Truss L1	Truss Type Hip Girder	Qty 1	Ply 2	104 RR	i49387938
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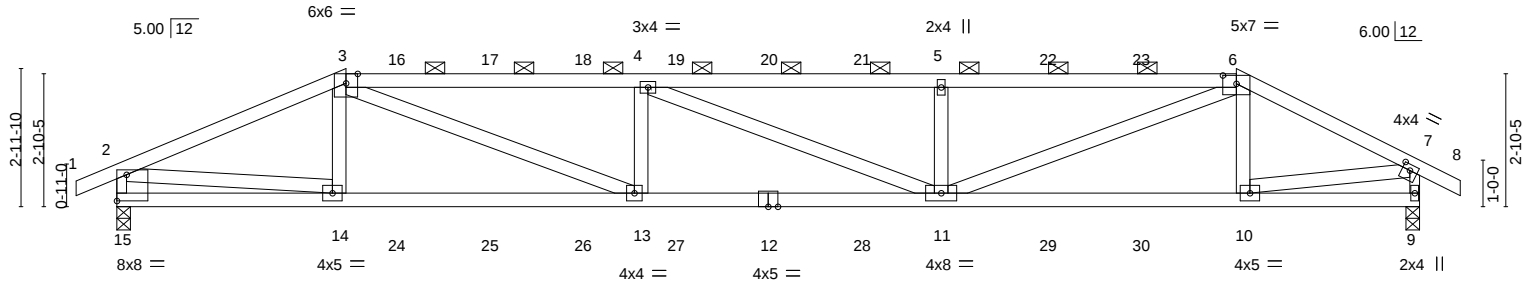
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:30 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHSj-x27u8Cl_gAKdHKhKmbUHMDMjqD4vVqijVAWRcby6huZ

0-10-8 4-11-2 11-3-4 17-8-10 24-0-12 28-0-0 28-10-8
0-10-8 4-11-2 6-4-2 6-5-6 6-4-2 3-11-4 0-10-8

Scale = 1:49.5



4-11-2 4-11-2	11-3-4 6-4-2	17-8-10 6-5-6	24-0-12 6-4-2	28-0-0 3-11-4
Plate Offsets (X,Y)-- [6:0-3-8,0-2-3], [7:0-2-0,0-1-8], [15:Edge,0-6-12]				

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.74	Vert(LL) -0.18	11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.72	Vert(CT) -0.34	11-13	>976	240		
BCLL 0.0 *	Rep Stress Incr NO		WB 0.33	Horz(CT) 0.06	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.17	11-13	>999	240	Weight: 220 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2 *Except*
2-15,7-9: 2x3 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 (4-9-4 max.): 3-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 15=0-3-8, 9=0-3-8
Max Horz 15=62(LC 7)
Max Uplift 15=-453(LC 4), 9=-447(LC 4)
Max Grav 15=1861(LC 1), 9=1905(LC 1)

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

TOP CHORD 2-3=-3240/822, 3-4=-4923/1332, 4-5=-4753/1288, 5-6=-4756/1290, 6-7=-2807/726,
2-15=-1815/468, 7-9=-1877/455
BOT CHORD 14-15=-102/257, 13-14=-749/2942, 11-13=-1285/4920, 10-11=-612/2481
WEBS 3-13=-590/2202, 4-13=-633/339, 5-11=-671/352, 6-11=-674/2488, 2-14=-674/2710,
7-10=-612/2407

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=453, 9=447.
- 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.



December 22,2021

Continued on page 2

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR
B210101	L1	Hip Girder	1	2	Job Reference (optional)

I49387938

Wheeler Lumber, Waverly, KS - 66871,

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NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 88 lb down and 81 lb up at 6-0-0, 88 lb down and 81 lb up at 8-0-0, 88 lb down and 81 lb up at 10-0-0, 88 lb down and 81 lb up at 12-0-0, 88 lb down and 81 lb up at 14-0-0, 88 lb down and 81 lb up at 16-0-0, 88 lb down and 81 lb up at 18-0-0, 88 lb down and 81 lb up at 20-0-0, and 88 lb down and 81 lb up at 22-0-0, and 80 lb down and 81 lb up at 24-0-12 on top chord, and 224 lb down and 106 lb up at 4-11-2, 32 lb down at 6-0-0, 32 lb down at 8-0-0, 32 lb down at 10-0-0, 32 lb down at 12-0-0, 32 lb down at 14-0-0, 32 lb down at 16-0-0, 32 lb down at 18-0-0, 32 lb down at 20-0-0, and 32 lb down at 22-0-0, and 217 lb down and 88 lb up at 24-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-6=-70, 6-7=-70, 7-8=-70, 9-15=-20

Concentrated Loads (lb)

Vert: 6=-48(F) 12=-22(F) 14=-224(F) 5=-48(F) 11=-22(F) 10=-217(F) 16=-48(F) 17=-48(F) 18=-48(F) 19=-48(F) 20=-48(F) 21=-48(F) 22=-48(F) 23=-48(F) 24=-22(F) 25=-22(F) 26=-22(F) 27=-22(F) 28=-22(F) 29=-22(F) 30=-22(F)

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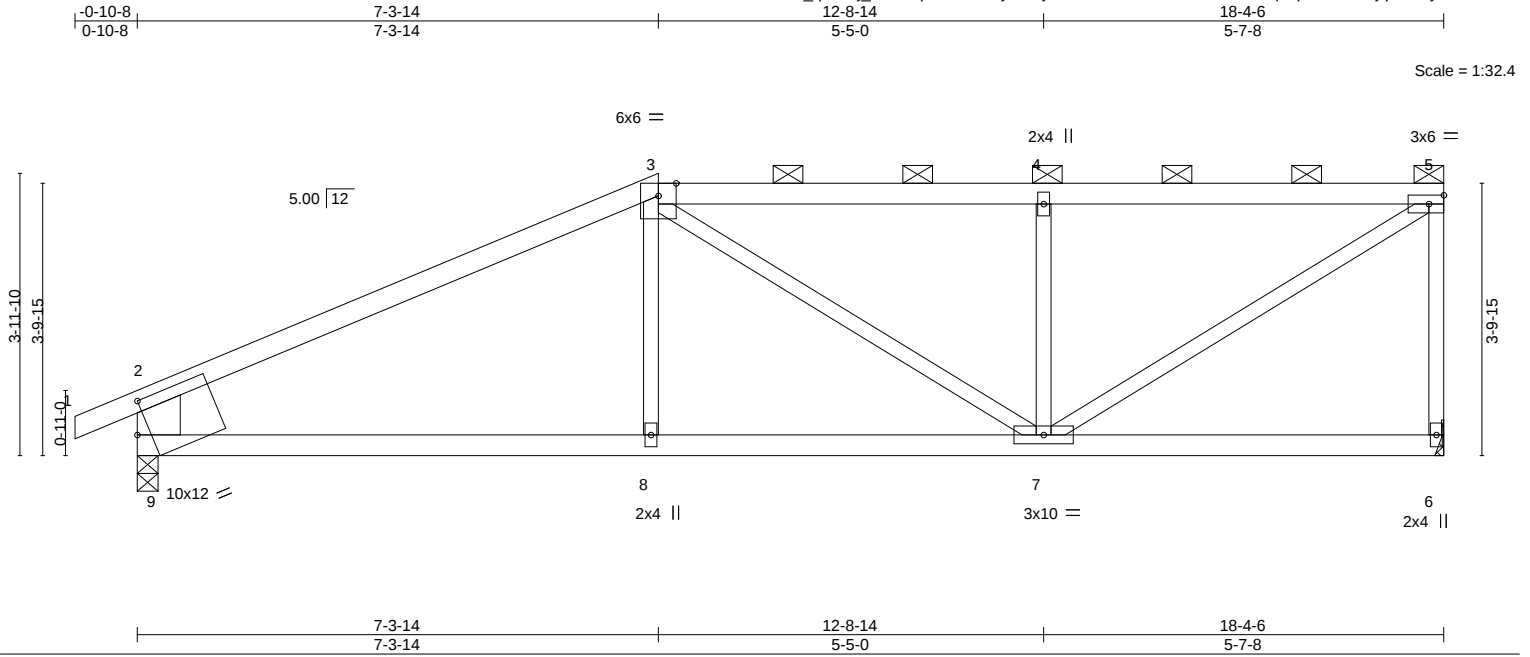
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387939
B210101	L2	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:31 2021 Page 1

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.09 7-8 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.17 7-8 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.02 6 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 7-8 >999 240				
								Weight: 64 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF 2100F 1.8E *Except* 3-5: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-10-10 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-2 max.): 3-5.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-9: 2x8 SP DSS		

REACTIONS. (size) 6=Mechanical, 9=0-3-8
Max Horz 9=123(LC 7)
Max Uplift 6=-41(LC 5), 9=-22(LC 4)
Max Grav 6=805(LC 1), 9=893(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1172/31, 3-4=-950/64, 4-5=-948/62, 5-6=-756/67, 2-9=-801/64
BOT CHORD 8-9=-72/973, 7-8=-74/970
WEBS 4-7=-474/103, 5-7=-57/1106

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	L3	Roof Special	1	1		I49387940
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:32 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHSj-tRFfZuJECnaLXdqu0WIS2R2T1qczhb0yU?YgTy6huX

0-10-8	3-11-12	8-8-2	14-5-3	15-5-13	18-4-6
0-10-8	3-11-12	4-8-6	5-9-2	1-0-10	2-10-9

Scale = 1:33.9

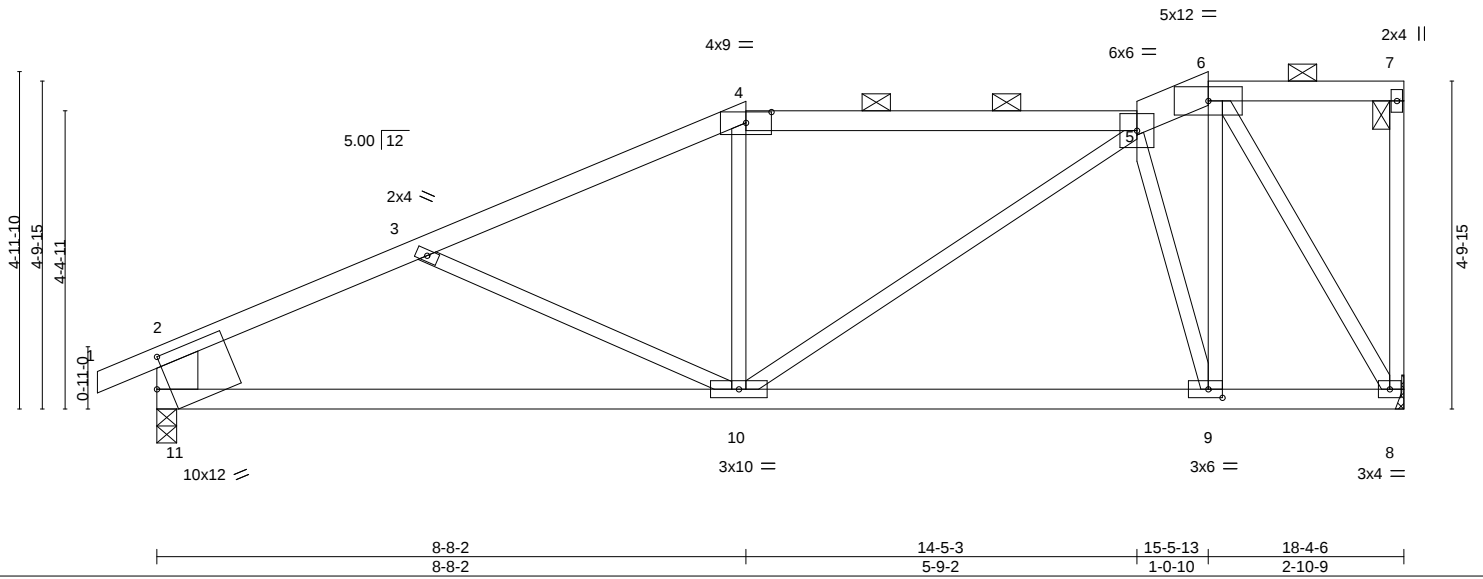


Plate Offsets (X,Y)-- [4:0-4-8,0-1-15], [9:0-2-8,0-1-8], [11:0-2-3,0-5-5]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.11	10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.22	10-11	>989	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.56	Horz(CT)	0.02	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	9-10	>999	240	Weight: 74 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-7 max.): 4-5, 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=Mechanical, 11=0-3-8
Max Horz 11=157(LC 7)
Max Uplift 8=-20(LC 8), 11=-43(LC 8)
Max Grav 8=805(LC 1), 11=893(LC 1)

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

TOP CHORD 2-3=-1161/92, 3-4=-1020/54, 4-5=-917/70, 5-6=-489/53, 2-11=-801/86
BOT CHORD 10-11=-90/958, 9-10=-22/611, 8-9=-19/439
WEBS 5-10=-10/371, 5-9=-703/106, 6-9=-46/791, 6-8=-839/21

NOTES-

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



December 22, 2021

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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	104 RR	i49387941
B210101	L4	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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0-10-8 6-3-5 12-0-6 17-10-10 18-4-6
0-10-8 6-3-5 5-9-2 5-10-3 0-5-12

6x8 =6.00 | 12 Scale = 1:37.8

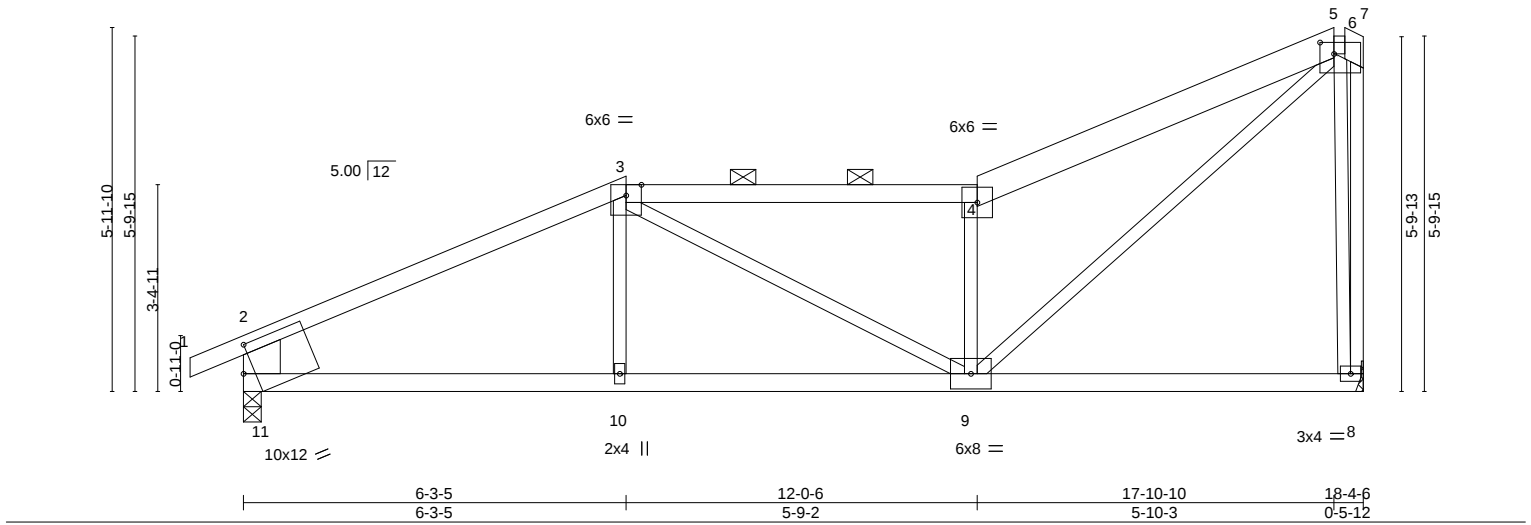


Plate Offsets (X,Y)-- [5:0-2-12,0-2-4], [11:0-2-3,0-5-5]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.99	Vert(LL) -0.13	9-10	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.65	Vert(CT) -0.25	9-10	>867	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.56	Horz(CT) 0.02	8	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.06	9-10	>999	240		Weight: 76 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5,5-7: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (4-4-14 max.): 3-4, 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=Mechanical, 11=0-3-8
Max Horz 11=189(LC 5)
Max Uplift 8=-47(LC 8), 11=-41(LC 8)
Max Grav 8=807(LC 1), 11=893(LC 1)

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

TOP CHORD 2-3=-1201/56, 3-4=-1118/48, 4-5=-1323/107, 2-11=-787/79
BOT CHORD 10-11=-56/1010, 9-10=-58/1008
WEBS 4-9=-919/130, 5-9=-98/1492, 5-8=-755/86

NOTES-

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



December 22,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387942
B210101	L5	Roof Special Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:35.9

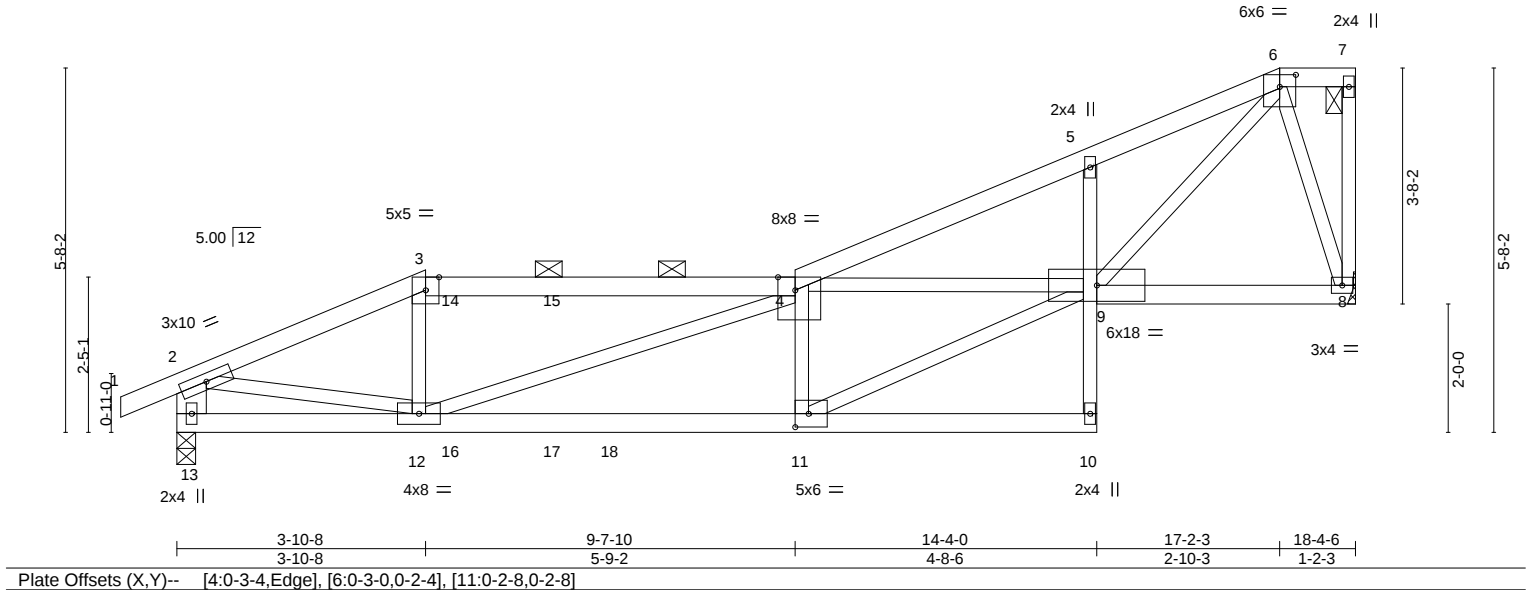


Plate Offsets (X,Y)-- [4:0-3-4,Edge], [6:0-3-0,0-2-4], [11:0-2-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.81	Vert(LL)	-0.17 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.31 11-12	>700	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.83	Horz(CT)	0.02 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.13 11-12	>999	240	Weight: 75 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 10-13: 2x4 SPF 2100F 1.8E, 5-10: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-13: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-2 max.): 3-4, 6-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=Mechanical, 13=0-3-8
 Max Horz 13=208(LC 5)
 Max Uplift 8=-187(LC 8), 13=-240(LC 8)
 Max Grav 8=936(LC 1), 13=1148(LC 1)

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

TOP CHORD 2-3=-1800/363, 3-4=-1610/364, 4-5=-1636/322, 5-6=-1603/384, 2-13=-1166/260
 BOT CHORD 11-12=-490/2275, 5-9=-259/159, 8-9=-70/282
 WEBS 3-12=0/322, 4-12=-709/126, 4-11=-713/254, 9-11=-517/2430, 4-9=-796/176,
 6-9=-412/1756, 6-8=-904/209, 2-12=-270/1538

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=187, 13=240.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 108 lb down and 75 lb up at 3-10-8, and 74 lb down and 61 lb up at 4-3-8, and 74 lb down and 61 lb up at 5-10-8 on top chord, and 32 lb down at 3-10-8, 20 lb down at 4-3-8, and 20 lb down at 5-10-8, and 284 lb down and 63 lb up at 6-9-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



December 22, 2021

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	104 RR	
B210101	L5	Roof Special Girder	1	1		I49387942
						Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:34 2021 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 10-13=-20, 8-9=-20
Concentrated Loads (lb)
Vert: 3=-26(B) 12=-16(B) 14=-18(B) 15=-18(B) 16=-11(B) 17=-11(B) 18=-284(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387943
B210101	L6	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:34 2021 Page 1
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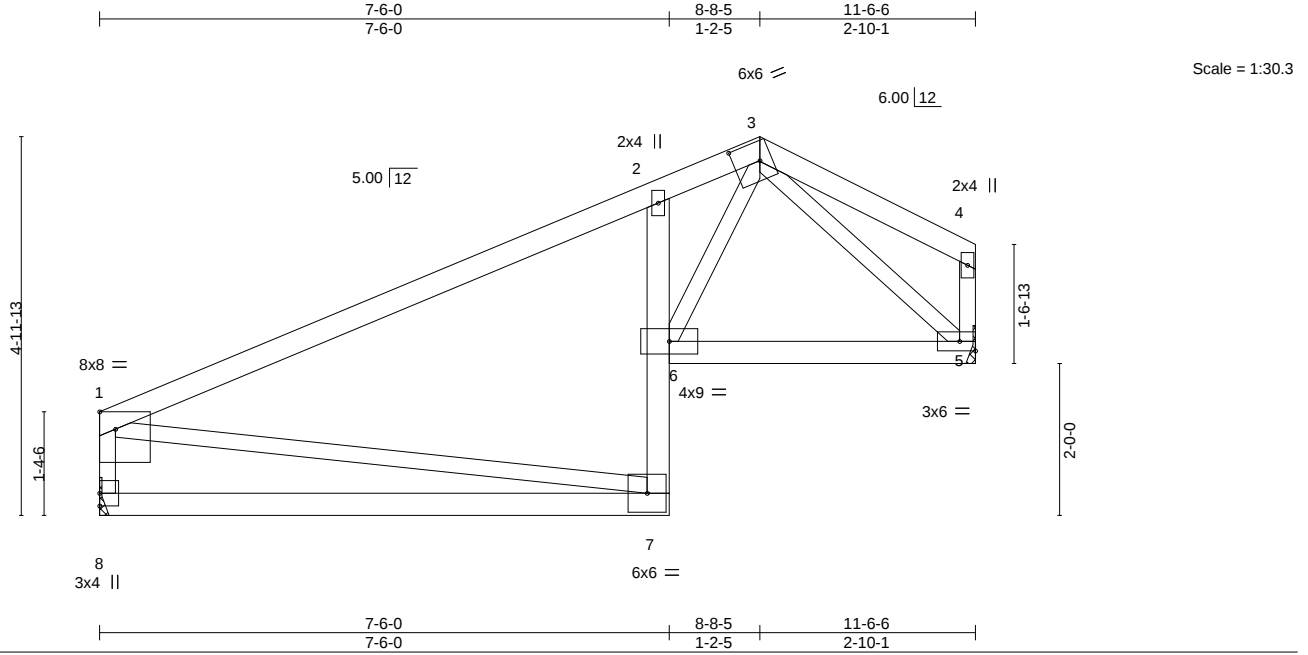


Plate Offsets (X,Y)--		[1:Edge,0-2-12], [3:0-4-2,0-3-0]							
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.12	MT20	GRIP
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.21		197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.20		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	Weight: 45 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 5=Mechanical
Max Horz 8=99(LC 5)
Max Uplift 8=9(LC 8), 5=12(LC 8)
Max Grav 8=510(LC 1), 5=510(LC 1)

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

TOP CHORD 1-2=-538/32, 2-3=-811/110, 1-8=-452/54
BOT CHORD 2-6=-589/157, 5-6=-5/357
WEBS 3-6=-99/723, 3-5=-431/14

NOTES-

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



December 22,2021

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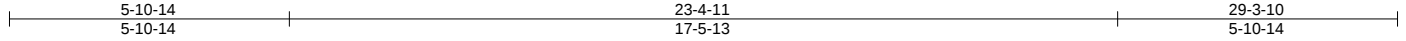
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job B210101	Truss LAY1	Truss Type GABLE	Qty 1	Ply 1	104 RR Job Reference (optional)	i49387944
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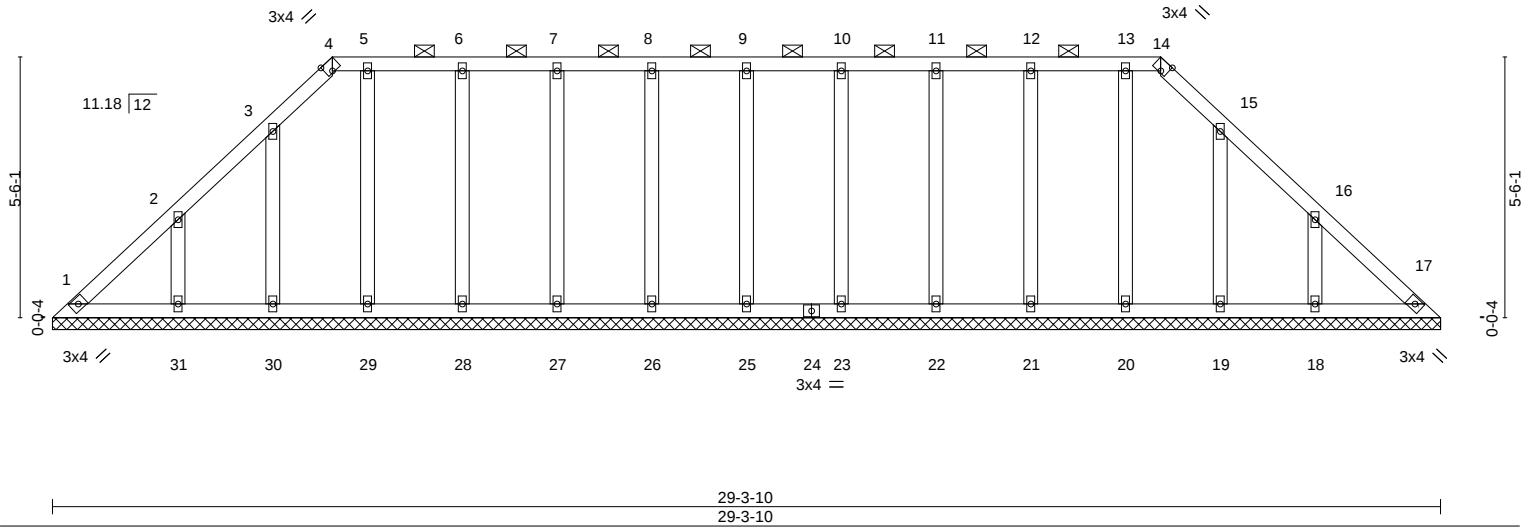
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:36 2021 Page 1

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Scale = 1:48.6



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.01				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 134 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (6-0-0 max.): 4-14.
OTHERS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 29-3-10.
 (lb) - Max Horz 1=-136(LC 4)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19 except
 31=-135(LC 8), 18=-137(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) 1, 17, 25, 26, 27, 28, 29, 30, 31, 23, 22, 21, 20, 19, 18

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19 except (jt=lb) 31=135, 18=137.
- 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.



December 22, 2021

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

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



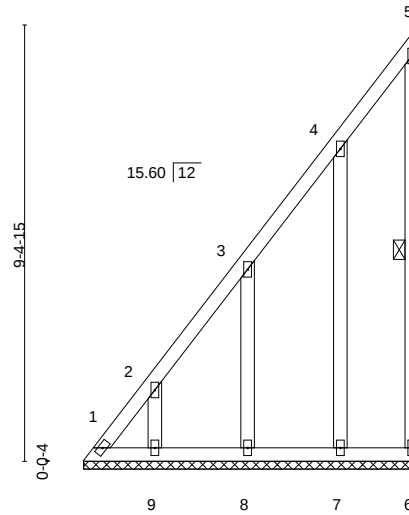
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	LAY2	GABLE	1	1		I49387945

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:36 2021 Page 1

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7-2-14
7-2-14



Scale = 1:49.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 45 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-6

REACTIONS.

All bearings 7-2-11.
(lb) - Max Horz 1=349(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-216(LC 6), 6=-155(LC 7), 9=-154(LC 8), 8=-180(LC 8), 7=-160(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 6, 9, 8, 7 except 1=343(LC 5)

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

TOP CHORD 1-2=-435/315, 2-3=-353/253, 3-4=-283/194

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 216 lb uplift at joint 1, 155 lb uplift at joint 6, 154 lb uplift at joint 9, 180 lb uplift at joint 8 and 160 lb uplift at joint 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR
B210101	LAY3	GABLE	1	1	

I49387946

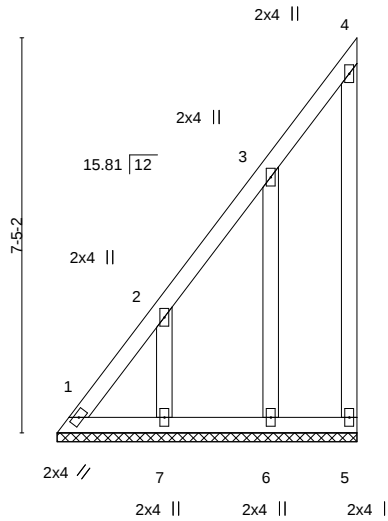
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:37 2021 Page 1

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5-7-10
5-7-10

Scale = 1:43.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 32 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 5-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 5-7-10.
(lb) - Max Horz 1=271(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-142(LC 6), 5=-122(LC 7), 7=-186(LC 8), 6=-162(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 5, 7, 6 except 1=256(LC 5)

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

TOP CHORD 1-2=-325/241

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 1, 122 lb uplift at joint 5, 186 lb uplift at joint 7 and 162 lb uplift at joint 6.
- 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.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	LAY4	GABLE	1	1		I49387947
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:38 2021 Page 1
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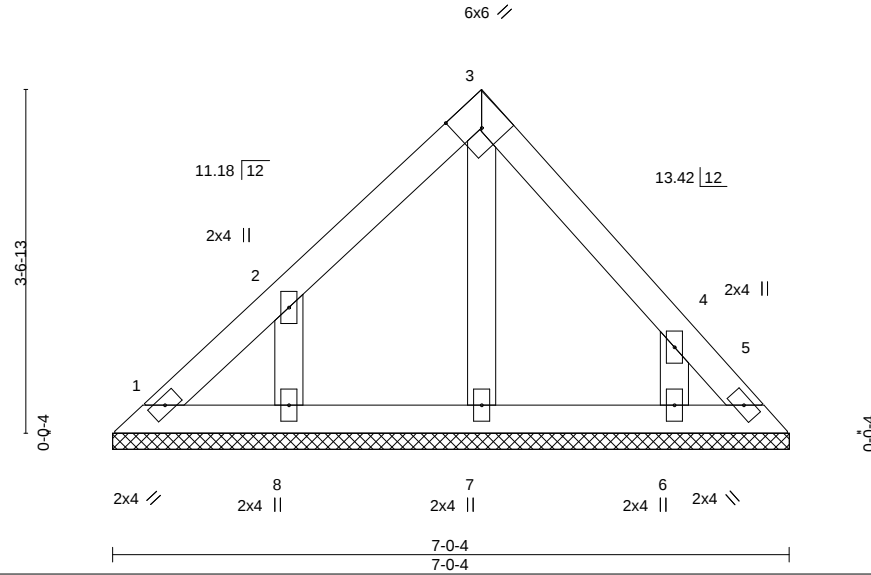


Plate Offsets (X,Y)--		[3:0-2-14,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.05		Vert(LL)	n/a -	n/a	999	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.03		Vert(CT)	n/a -	n/a	999		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.03		Horz(CT)	0.00 5	n/a	n/a		
BCDL 10.0		Code	IRC2018/TPI2014	Matrix-P						Weight: 24 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-0-4.
(lb) - Max Horz 1=87(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-117(LC 8), 6=-141(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=117, 6=141.
- 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.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387948
B210101	LAY5	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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6x6 //

Scale = 1:40.7

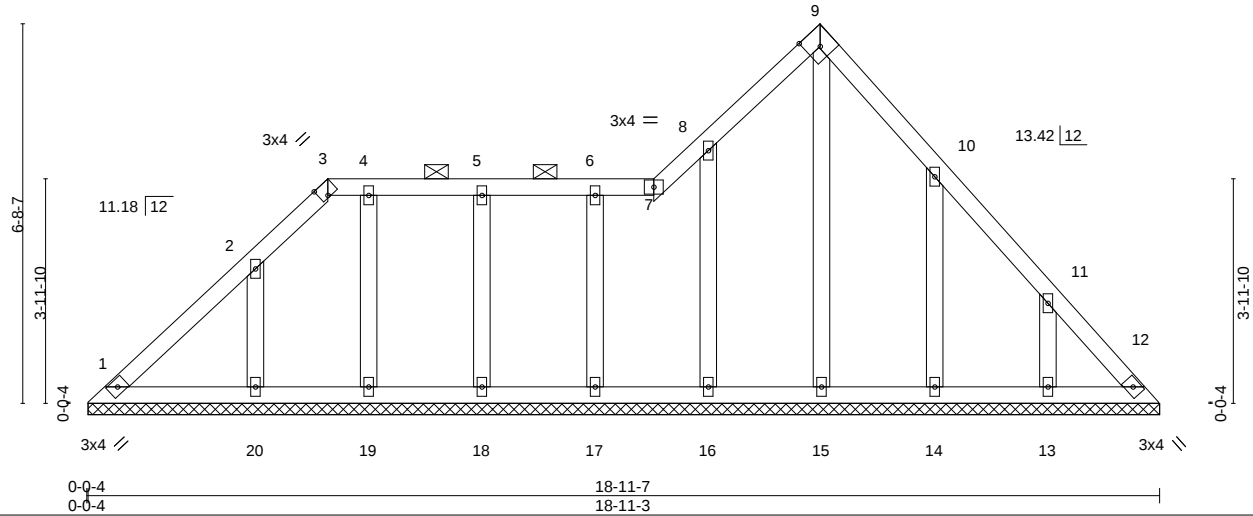


Plate Offsets (X,Y)-- [3:0-1-10,Edge], [9:0-2-14,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 81 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 3-7.
OTHERS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 18-11-3.
(lb) - Max Horz 1=172(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 12, 19, 18, 17, 16 except 20=-145(LC 8), 14=-144(LC 9), 13=-137(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 12, 19, 18, 17, 16, 15, 14, 13 except 20=272(LC 15)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12, 19, 18, 17, 16 except (jt=lb) 20=145, 14=144, 13=137.
- 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.



December 22, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	LAY6	GABLE	1	1		I49387949

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:40 2021 Page 1
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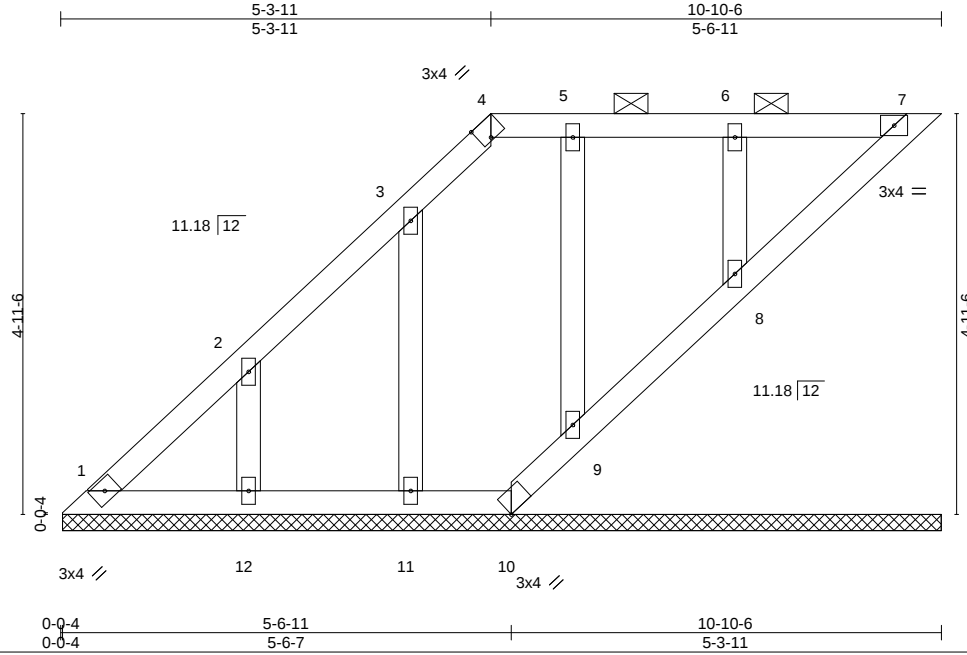


Plate Offsets (X,Y)-- [4:0-1-10,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 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 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.03	Horz(CT)	-0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 40 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 4-7.
OTHERS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 10-10-2.
(lb) - Max Horz 1=190(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 10, 11, 9, 8 except 12=-122(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 12, 11, 9, 8

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 10, 11, 9, 8 except (jt=lb) 12=122.
- n/a
- 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.



December 22,2021

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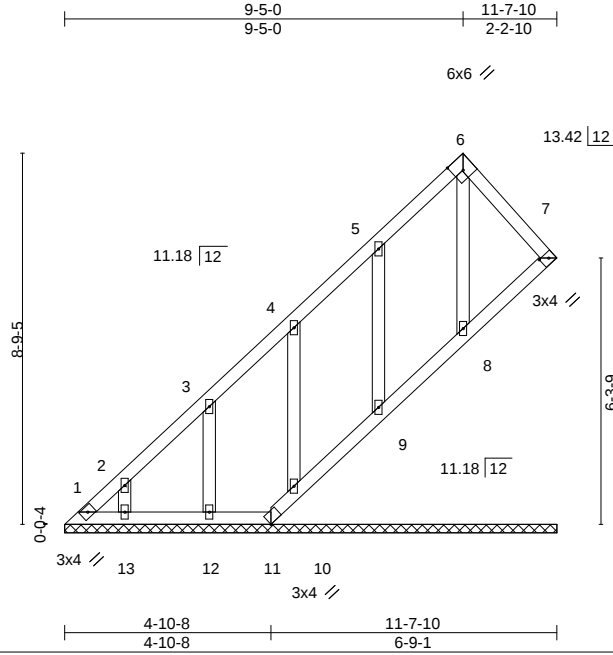
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR
B210101	LAY8	GABLE	1	1	

I49387950

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:41 2021 Page 1
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Scale = 1:54.5

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 51 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-7-10.
(lb) - Max Horz 1=291(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 13 except 7=-101(LC 8), 9=-108(LC 8), 10=-110(LC 8), 12=-108(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 11, 8, 9, 10, 12, 13

FORCES.

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

TOP CHORD 1-2=-333/151, 2-3=-250/123

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 13 except (jt=lb) 7=101, 9=108, 10=110, 12=108.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 8, 9, 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.



December 22, 2021

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



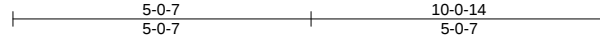
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	LAY9	GABLE	1	1		149387951

Wheeler Lumber, Waverly, KS - 66871,

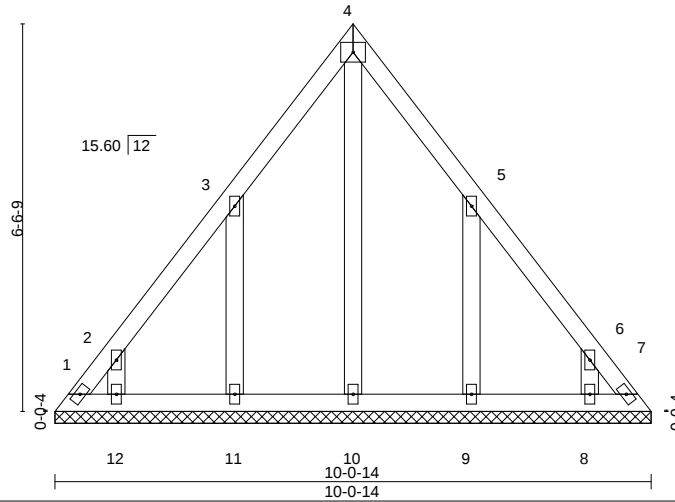
8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:42 2021 Page 1

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4x5 =

Scale = 1:38.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	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 0.07	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 45 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 10-0-14.

(lb) - Max Horz 1=173(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) except 1=-124(LC 6), 7=-101(LC 7), 11=-185(LC 8), 12=-141(LC 8), 9=-185(LC 9), 8=-142(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

FORCES.

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

TOP CHORD 1-2=-271/169, 6-7=-253/141

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 1, 101 lb uplift at joint 7, 185 lb uplift at joint 11, 141 lb uplift at joint 12, 185 lb uplift at joint 9 and 142 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.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387952
B210101	M1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:43 2021 Page 1

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-0-10-8	2-6-5	7-2-7	11-8-0	12-6-8
0-10-8	2-6-5		1-11-4	0-10-8

Scale = 1:22.2

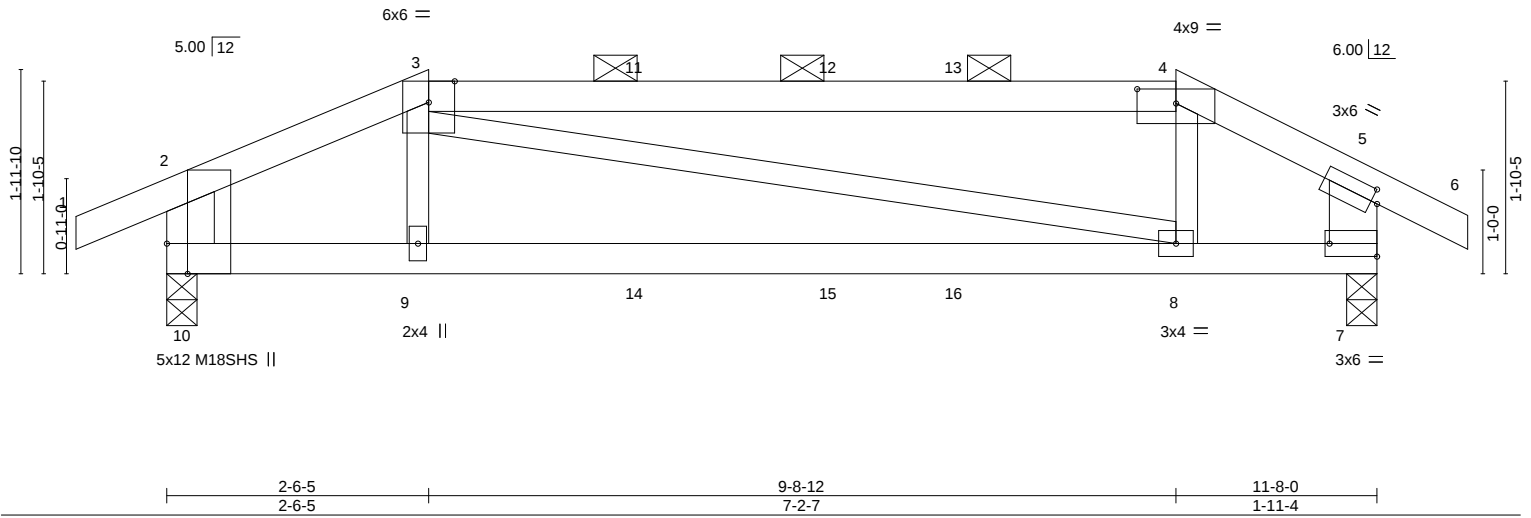


Plate Offsets (X,Y)--		[4:0-4-8,0-1-11], [5:0-0-12,0-1-8], [7:Edge,0-1-8], [10:0-3-8,Edge]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.98	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.61	Vert(LL) -0.09 8-9 >999 360
BCLL 0.0 *	Rep Stress Incr NO	WB 0.17	Vert(CT) -0.22 8-9 >625 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.01 7 n/a n/a
			Wind(LL) 0.08 8-9 >999 240
			PLATES GRIP
			MT20 197/144
			M18SHS 197/144
			Weight: 40 lb FT = 10%

LUMBER-

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

REACTIONS.

(size) 10=0-3-8, 7=0-3-8
 Max Horz 10=50(LC 7)
 Max Uplift 10=-164(LC 4), 7=-142(LC 9)
 Max Grav 10=579(LC 1), 7=579(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-736/195, 3-4=-534/157, 4-5=-645/152, 2-10=-469/119, 5-7=-459/90
 BOT CHORD 9-10=-182/639, 8-9=-190/639, 7-8=-129/533

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 164 lb uplift at joint 10 and 142 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 103 lb down and 132 lb up at 2-6-5, 56 lb down and 37 lb up at 4-7-1, 56 lb down and 37 lb up at 6-5-7, and 56 lb down and 37 lb up at 7-8-0, and 91 lb down and 107 lb up at 9-8-12 on top chord, and 14 lb down and 5 lb up at 2-6-5, 10 lb down and 0 lb up at 4-7-1, 10 lb down and 0 lb up at 6-5-7, and 10 lb down and 0 lb up at 7-8-0, and 14 lb down and 4 lb up at 9-8-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



December 22,2021

Continued on page 2

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	M1	Hip Girder	1	1		I49387952

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:43 2021 Page 2
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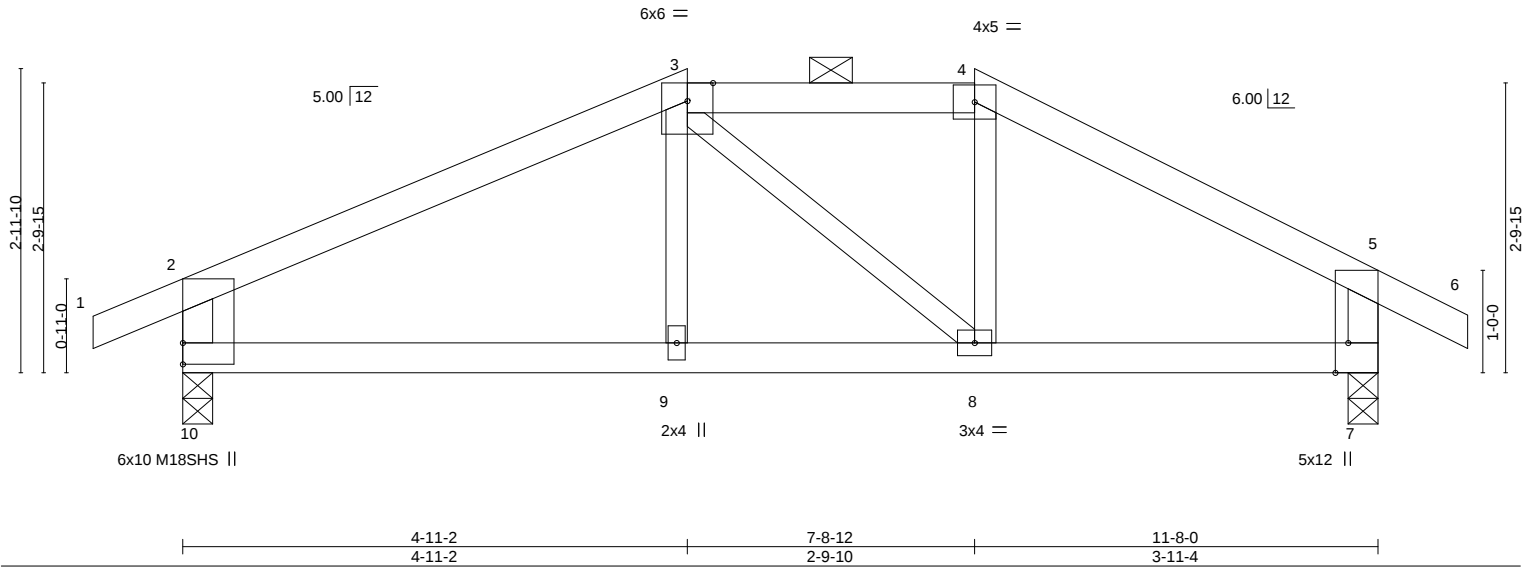
LOAD CASE(S) Standard
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 9=2(B) 8=1(B) 14=0(B) 15=0(B) 16=0(B)

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387953
B210101	M2	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:44 2021 Page 1
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 7-8-12 2-9-10 11-8-0 12-6-8 0-10-8

Scale = 1:22.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.05 8-9 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.10 8-9 >999 240	M18SHS		197/144	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.01 7 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 8-9 >999 240	Weight: 38 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-10,5-7: 2x4 SPF No.2		

REACTIONS. (size) 10=0-3-8, 7=0-3-8
 Max Horz 10=63(LC 7)
 Max Uplift 10=-82(LC 8), 7=-71(LC 9)
 Max Grav 10=583(LC 1), 7=583(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-657/74, 3-4=-460/79, 4-5=-602/72, 2-10=-508/114, 5-7=-497/98
 BOT CHORD 9-10=-38/533, 8-9=-40/530, 7-8=-10/463

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 10 and 71 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.



December 22,2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	M3	Roof Special	1	1		I49387954

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:45 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHsj-?xXZHKTO8nDVbdKD9FFoTnTKtGleWgcxx0fkeDy6huK

6-5-7
6-5-7

11-8-0
5-2-9

Scale = 1:21.8

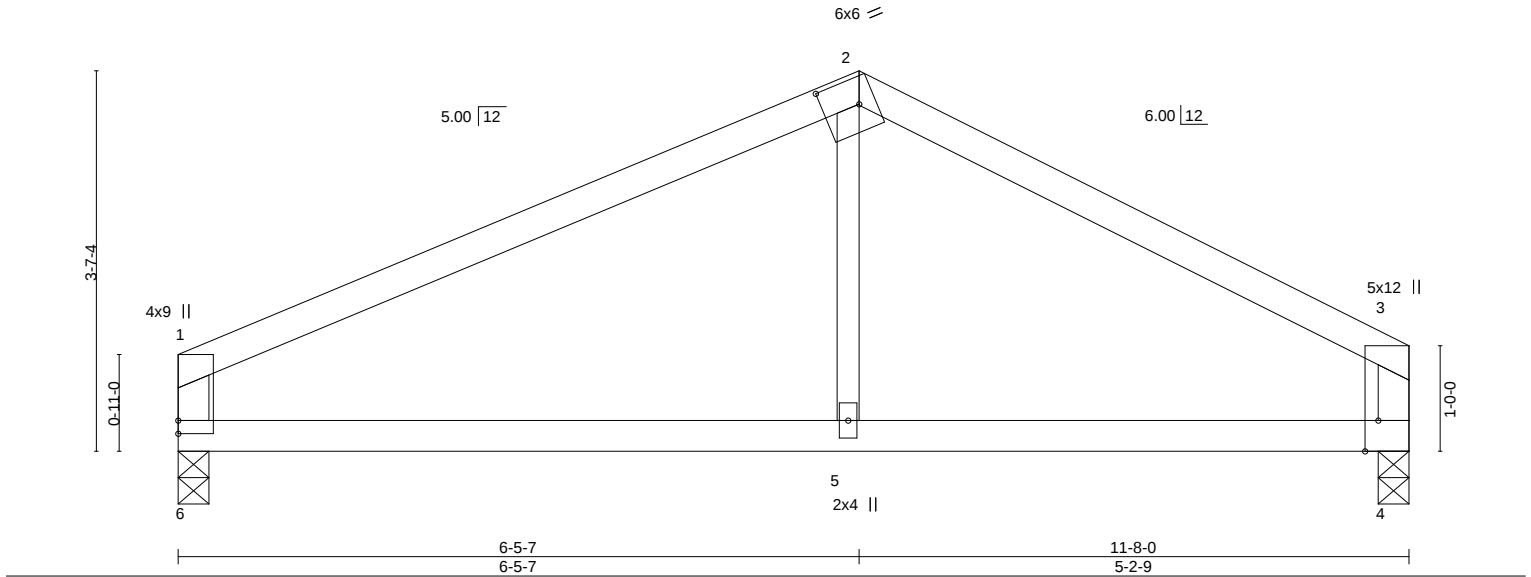


Plate Offsets (X,Y)-- [2:0-4-2,0-3-0], [3:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.56	Vert(LL)	-0.05	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.38	Vert(CT)	-0.11	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	5-6	>999	240	Weight: 32 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=0-3-8, 4=0-3-8
Max Horz 6=68(LC 5)
Max Uplift 6=68(LC 8), 4=58(LC 9)
Max Grav 6=512(LC 1), 4=512(LC 1)

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

TOP CHORD 1-2=-588/77, 2-3=-599/92, 1-6=-429/108, 3-4=-426/88
BOT CHORD 5-6=-26/458, 4-5=-28/456

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 68 lb uplift at joint 6 and 58 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.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	V1	Valley	1	1		I49387955

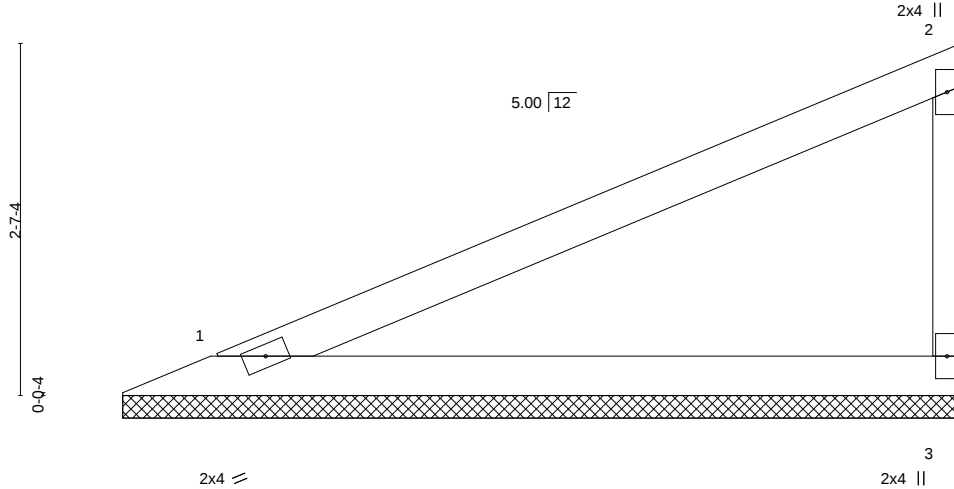
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:45 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-?xXZHKTO8nDVbdKD9FFoTnTKkGJnWhdxx0fkeDy6huK

6-3-0
6-3-0

Scale = 1:17.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-2-6, 3=6-2-6
Max Horz 1=99(LC 5)
Max Uplift 1=-35(LC 8), 3=-55(LC 8)
Max Grav 1=243(LC 1), 3=243(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 1 and 55 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.



December 22, 2021

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

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



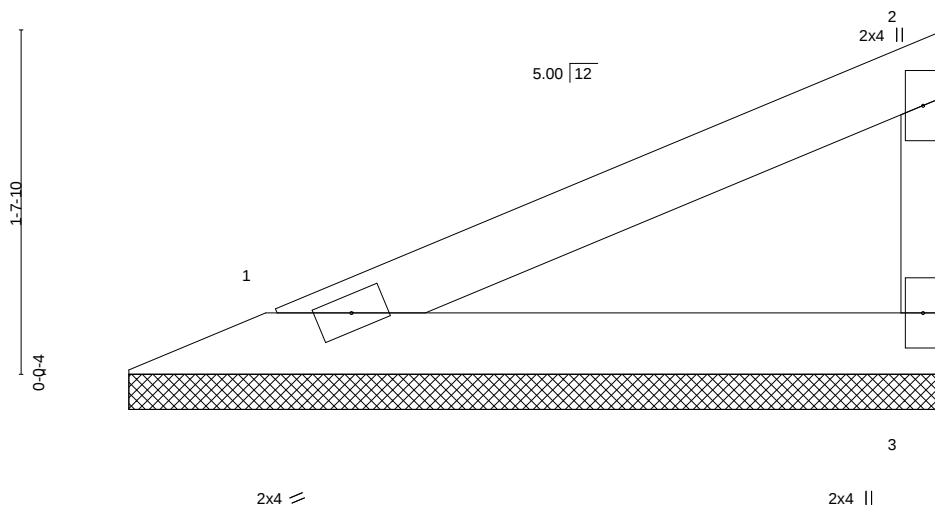
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	V2	Valley	1	1		I49387956

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:48 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-PWDiwMWGRib4S53oqNov5Q5xEUNij2MNeztOEYy6huH
3-11-2
3-11-2



Scale = 1:10.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-10-8, 3=3-10-8
Max Horz 1=56(LC 5)
Max Uplift 1=-20(LC 8), 3=-31(LC 8)
Max Grav 1=138(LC 1), 3=138(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 31 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.



December 22, 2021

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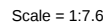
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:48 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOhsj-PWDiwMWGRib4S53oqNoV5Q5zAUOrj2MNezIOEYy6huH
-0-10-8 1-10-0
0-10-8 1-10-0



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-10-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 4 and 55 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 22.2021



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) 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



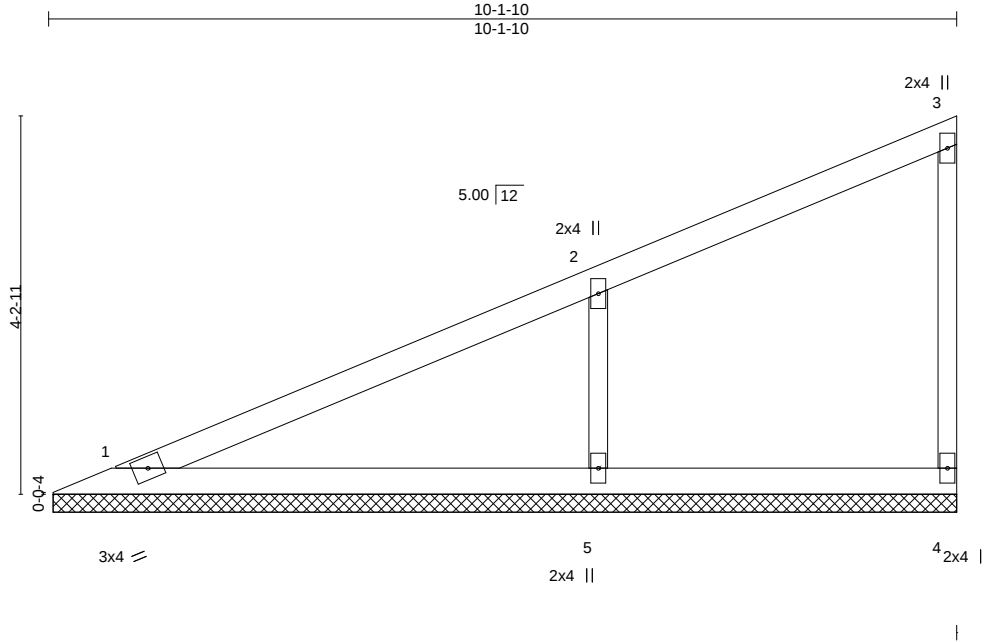
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387958
B210101	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:49 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-tim47iXuC0jw3Ed_O4Kkede3uthUSUKWsdDyn_y6huG



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 28 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10-1-0, 4=10-1-0, 5=10-1-0
Max Horz 1=169(LC 5)
Max Uplift 1=-2(LC 8), 4=-23(LC 5), 5=-140(LC 8)
Max Grav 1=195(LC 1), 4=110(LC 1), 5=529(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-400/196

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1, 23 lb uplift at joint 4 and 140 lb uplift at joint 5.
- 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.



December 22, 2021

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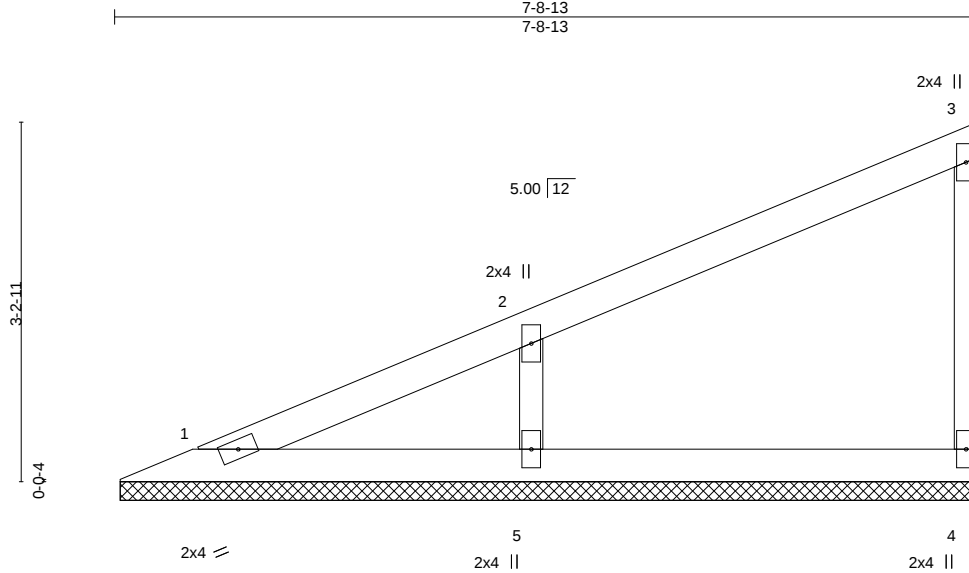


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387959
B210101	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:49 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHsj-tim47iXuCOjw3Ed_O4Kkede5RtjvSVIWsddyn_y6huG



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-8-3, 4=7-8-3, 5=7-8-3
Max Horz 1=126(LC 5)
Max Uplift 4=-25(LC 8), 5=-104(LC 8)
Max Grav 1=89(LC 16), 4=140(LC 1), 5=392(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-305/157

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 4 and 104 lb uplift at joint 5.
- 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.



December 22, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	V7	Valley	1	1		I49387960

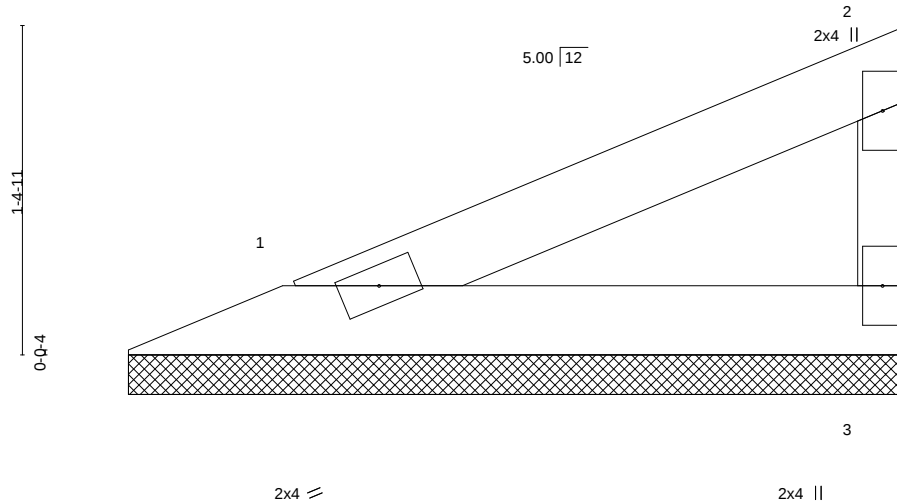
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:50 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-LvKSK2XWzJrnhOCAXorzArBhH4tBysg5HMMVJQy6huF

3-4-0
3-4-0

Scale = 1:9.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-3-6, 3=3-3-6
Max Horz 1=46(LC 5)
Max Uplift 1=-16(LC 8), 3=-25(LC 8)
Max Grav 1=111(LC 1), 3=111(LC 1)

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

NOTES-

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



December 22, 2021

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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



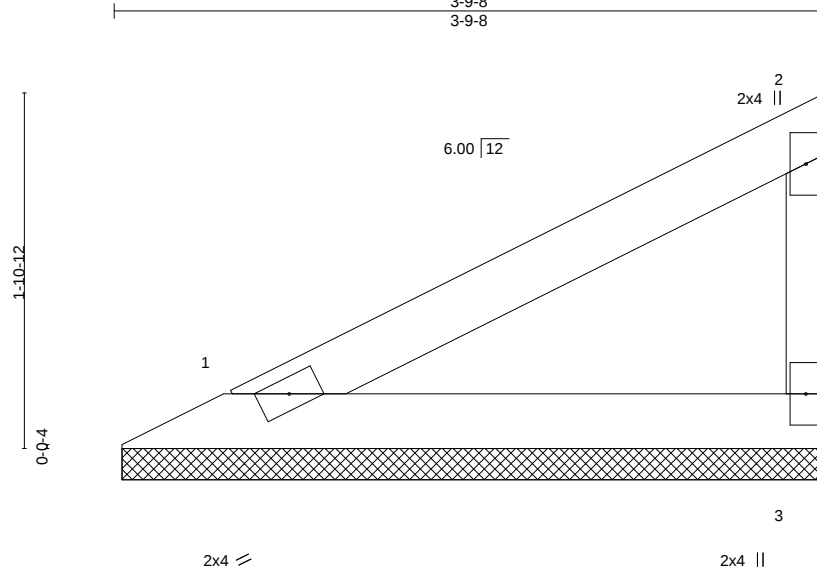
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	V8	Valley	1	1		I49387961

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:50 2021 Page 1

ID:M6_qRERj_ax8BApGKEbrTSyOHsj-LvKSK2XWzJmHOCAxorzarBHjH3MBysg5HMMVJQy6huF



Scale = 1:12.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-9-0, 3=3-9-0
Max Horz 1=64(LC 5)
Max Uplift 1=-18(LC 8), 3=-34(LC 8)
Max Grav 1=138(LC 1), 3=138(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1 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.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

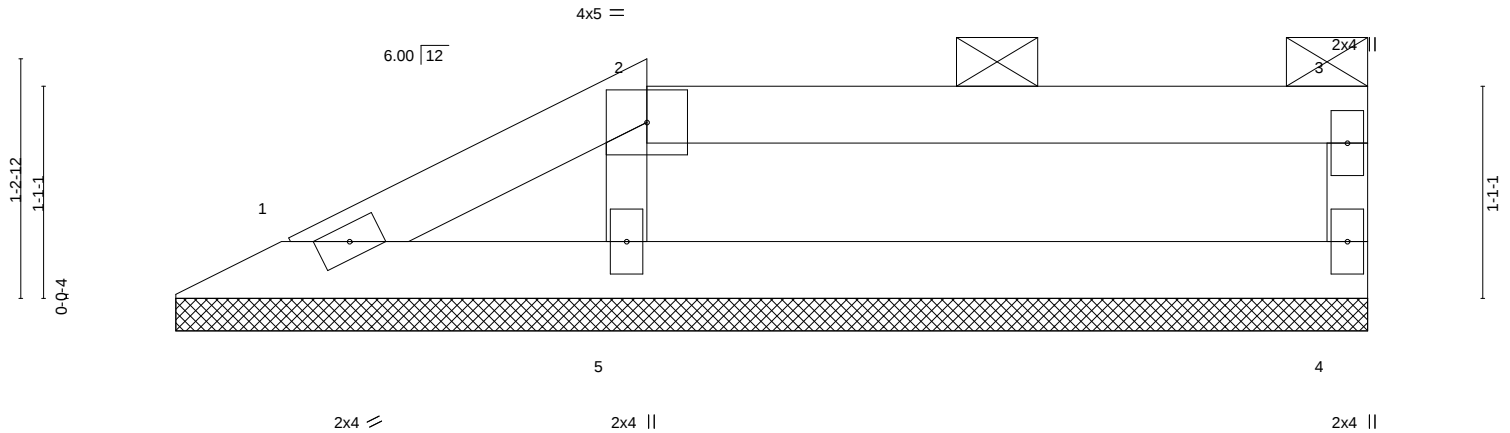
Job B210101	Truss V9	Truss Type Valley	Qty 1	Ply 1	104 RR	i49387962
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:51 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHsj-q5uqYOY9kdzeJYnNVVMCj2jREhPbwPZpKx62rty6huE



Scale = 1:11.8



0-0-8		2-5-8		6-1-14						
0-0-8		2-5-0		3-8-6						
LOADING	(psf)	SPACING-	2-0-0	CSI.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	n/a	-	n/a	999
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	4	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-1-14 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 1=6-1-6, 4=6-1-6, 5=6-1-6
Max Horz 1=32(LC 5)
Max Uplift 1=-18(LC 8), 4=-34(LC 4), 5=-29(LC 5)
Max Grav 1=55(LC 1), 4=156(LC 1), 5=277(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 1, 34 lb uplift at joint 4 and 29 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.



December 22, 2021

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

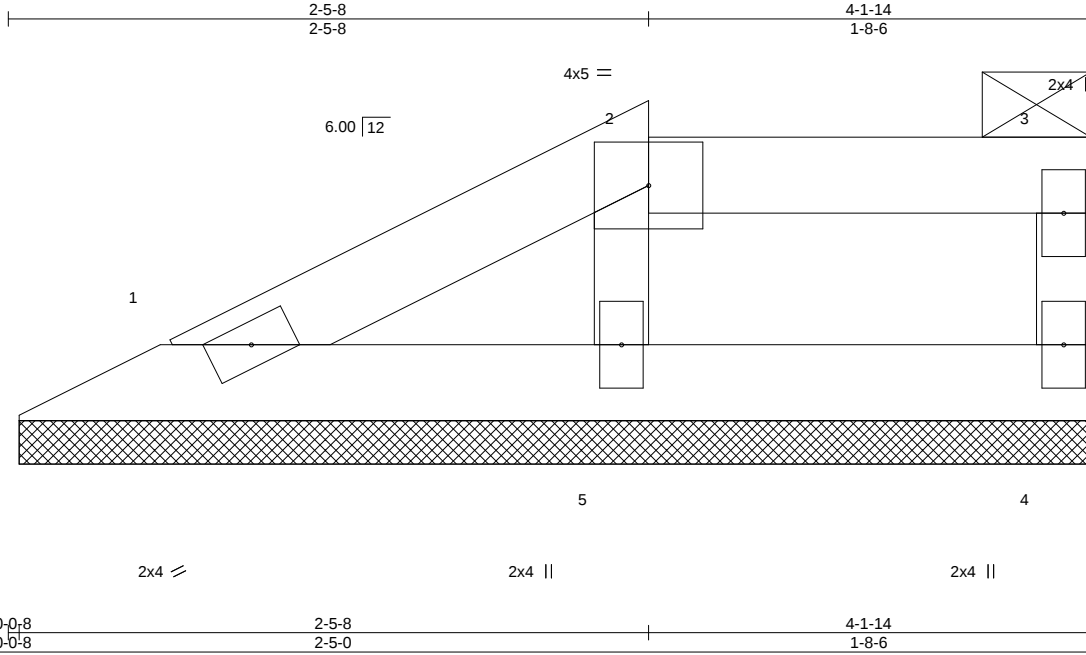


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	i49387963
B210101	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:46 2021 Page 1
ID:M6_qRERj_ax8BApGKEbrTSyOHSj-T75xVgU0v5LMcnvPiym10?0dQgiRF8X4AgOHAfy6huJ



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00				
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 1=4-1-6, 4=4-1-6, 5=4-1-6
Max Horz 1=32(LC 5)
Max Uplift 1=-12(LC 8), 4=-16(LC 4), 5=-19(LC 5)
Max Grav 1=70(LC 1), 4=68(LC 1), 5=170(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 16 lb uplift at joint 4 and 19 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.



December 22, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	104 RR	
B210101	V11	Valley	1	1		I49387964

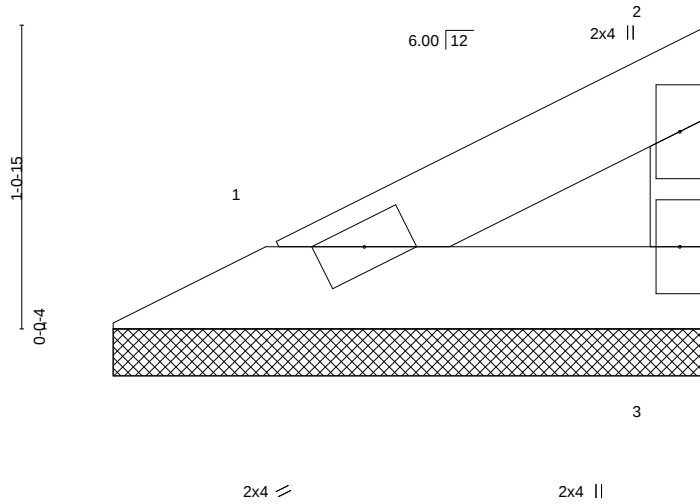
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 21 15:53:46 2021 Page 1

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2-1-14
2-1-14

Scale = 1:8.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-1-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-1-6, 3=2-1-6
Max Horz 1=30(LC 5)
Max Uplift 1=-8(LC 8), 3=-16(LC 8)
Max Grav 1=64(LC 1), 3=64(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 16 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.



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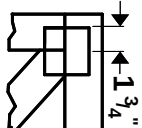
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



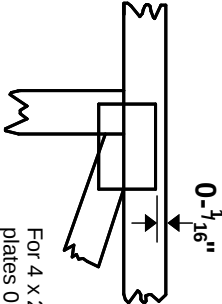
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 X 4

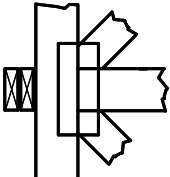
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



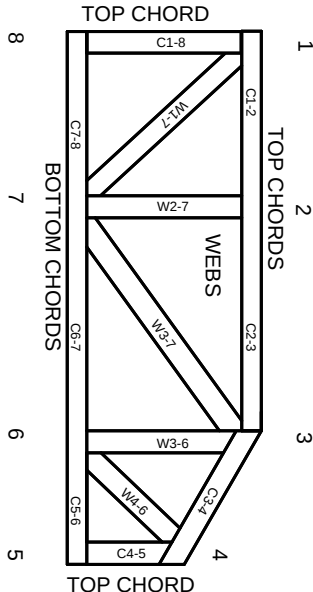
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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