



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
Engineering Services
LEE'S SUMMIT, MISSOURI

MiTek USA, Inc.

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

Re: HT145
Lot 145 HT

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: I48989396 thru I48989480

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

Missouri COA: Engineering 001193



November 30, 2021

Sevier, Scott ,Engineer

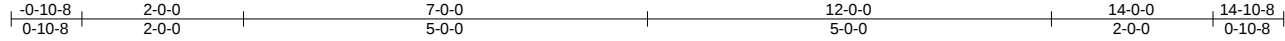
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989396
HT145	A3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:01 2021 Page 1

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4x8 =

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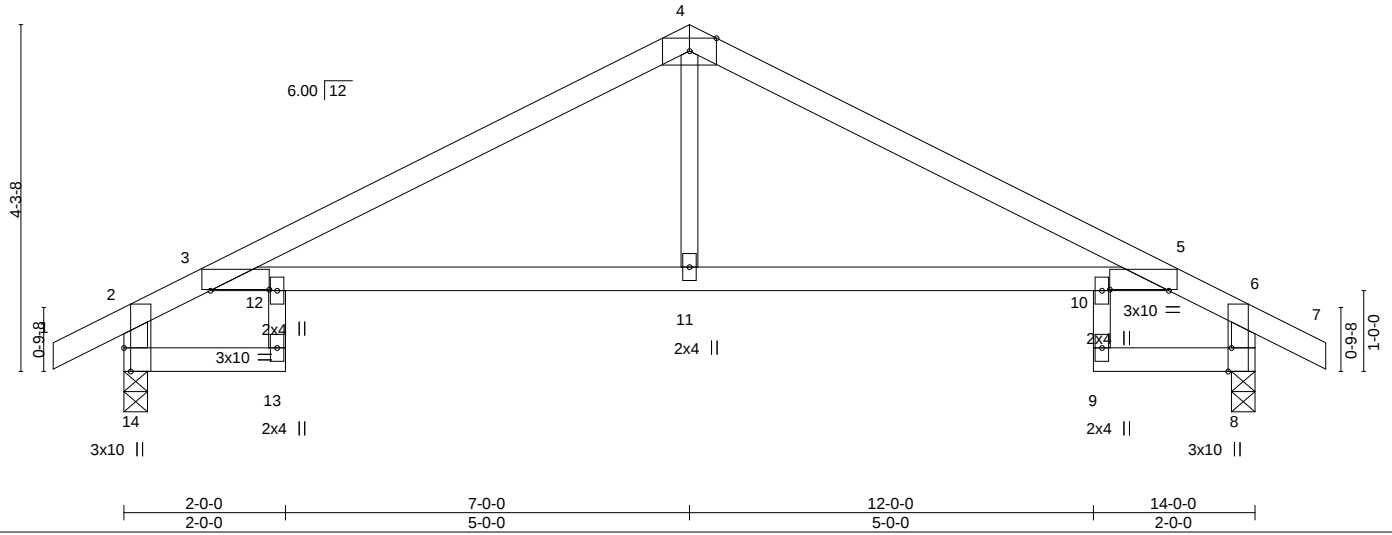


Plate Offsets (X,Y)-- [3:0-8-12,0-0-3], [5:0-8-12,0-0-3], [8:0-3-8,Edge], [14:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.49	Vert(LL) -0.15	10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.61	Vert(CT) -0.27	10-11	>601	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.12	Horz(CT) 0.33	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL) 0.13	11-12	>999	240	Weight: 43 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
 BOT CHORD 2x4 SPF No.2 *Except*
 3-5: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 2-14,6-8: 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. Except: 10-0-0 oc bracing: 10-11

REACTIONS.

(size) 14=0-3-8, 8=0-3-8
 Max Horz 14=72(LC 7)
 Max Uplift 14=-99(LC 8), 8=-99(LC 9)
 Max Grav 14=688(LC 1), 8=688(LC 1)

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

TOP CHORD 2-3=-280/85, 3-4=-1004/97, 4-5=-1004/121, 5-6=-280/55, 2-14=-717/128, 6-8=-717/118
 BOT CHORD 3-12=-30/852, 11-12=-30/852, 10-11=-30/852, 5-10=-30/852
 WEBS 4-11=0/381

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 14 and 99 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.



November 30,2021

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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	Lot 145 HT	
HT145	A4	Roof Special	2	1		I48989397

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:02 2021 Page 1
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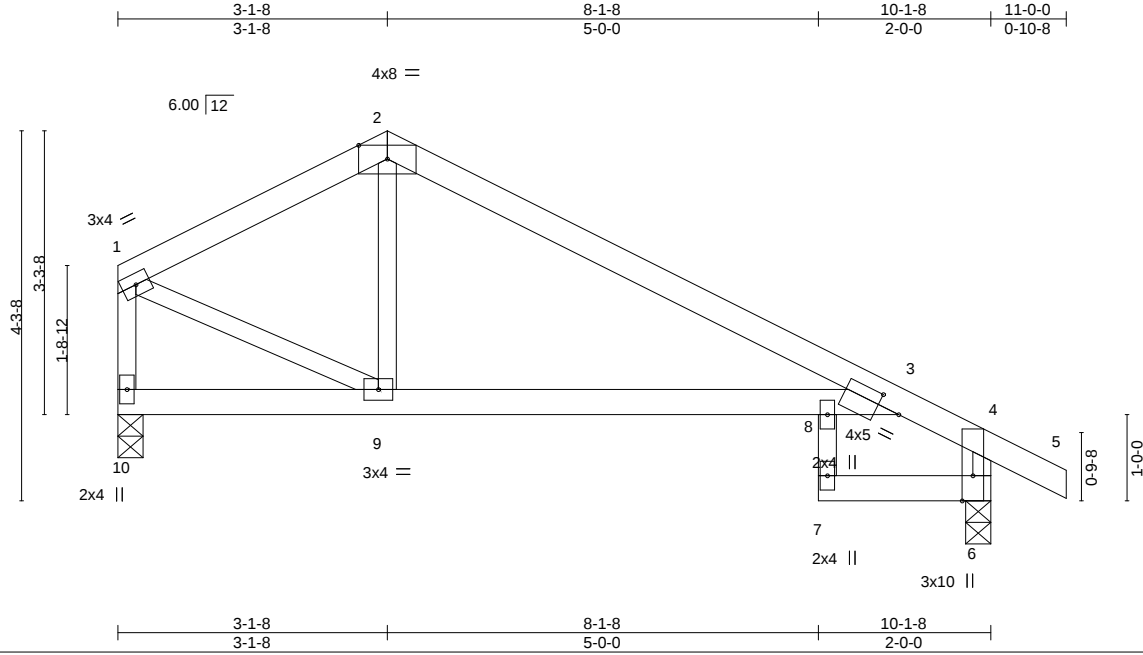


Plate Offsets (X,Y)-- [3:0-3-3,0-1-9]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.15 8-9	>819	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.28 8-9	>432	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.16 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12 8-9	>970	240	Weight: 33 lb	FT = 10%

LUMBER-

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

REACTIONS.

(size) 10=0-3-8, 6=0-3-8
Max Horz 10=-113(LC 4)
Max Uplift 10=-44(LC 9), 6=-92(LC 9)
Max Grav 10=443(LC 1), 6=518(LC 1)

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

TOP CHORD 1-2=-477/89, 2-3=-519/58, 1-10=-468/63, 4-6=-527/109
BOT CHORD 8-9=0/411, 3-8=0/411
WEBS 1-9=-56/462

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 44 lb uplift at joint 10 and 92 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.

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 10-0-0 oc bracing: 8-9



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	A5	Hip Girder	1	1		I48989398

Wheeler Lumber, Waverly, KS - 66871,

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Job Reference (optional)

0-10-8	2-0-0	5-0-0	9-0-0	12-0-0	14-0-0	14-10-8
0-10-8	2-0-0	3-0-0	4-0-0	3-0-0	2-0-0	0-10-8

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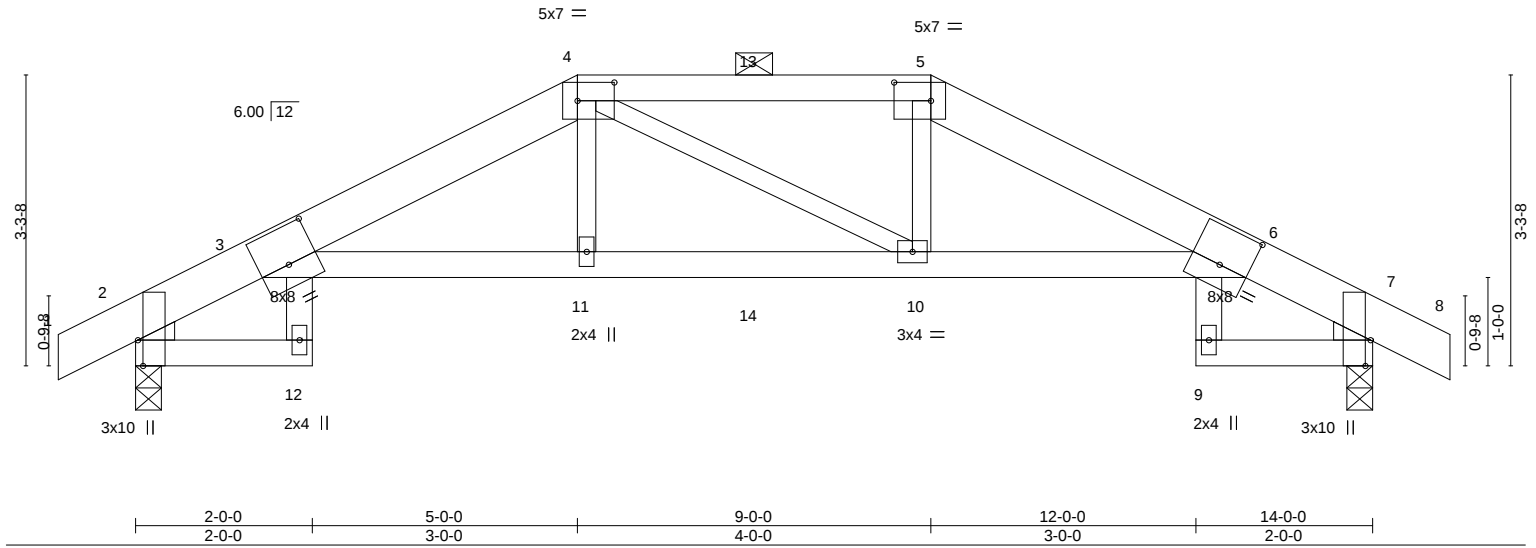


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [3:0-4-0,0-5-0], [4:0-5-0,0-2-8], [5:0-5-0,0-2-8], [6:0-4-0,0-5-0], [7:0-3-8,Edge]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 10.0	Lumber DOL	1.15
BCLL 0.0 *	Rep Stress Incr	NO
BCDL 10.0	Code	IRC2018/TPI2014
	CSI.	
	TC	0.78
	BC	0.95
	WB	0.17
	Matrix-S	
	DEFL.	
	in (loc)	l/defl L/d
	Vert(LL)	-0.14 11 >999 360
	Vert(CT)	-0.26 10-11 >635 240
	Horz(CT)	0.35 7 n/a n/a
	Wind(LL)	0.12 12 >999 240
	PLATES	GRIP
	MT20	197/144
	Weight: 54 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF 1650F 1.4E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-12,6-9: 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2 , Right: 2x3 SPF No.2

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=53(LC 8)
Max Uplift 2=244(LC 8), 7=244(LC 9)
Max Grav 2=1172(LC 1), 7=1172(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-724/180, 3-4=-2437/521, 4-5=-2270/494, 5-6=-2439/502, 6-7=-724/171
BOT CHORD 3-11=-453/2243, 10-11=-455/2267, 6-10=-414/2245
WEBS 4-11=-36/463, 5-10=-50/492

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 244 lb uplift at joint 2 and 244 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) 96 lb down and 82 lb up at 5-0-0, and 102 lb down and 82 lb up at 7-0-0, and 96 lb down and 82 lb up at 9-0-0 on top chord, and 338 lb down and 108 lb up at 5-0-0, and 53 lb down at 7-0-0, and 338 lb down and 108 lb up at 8-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



November 30,2021

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	Lot 145 HT
HT145	A5	Hip Girder	1	1	I48989398

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:04 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, 4-5=-70, 5-8=-70, 2-12=-20, 3-6=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 4=-73(F) 5=-73(F) 11=-338(F) 10=-338(F) 13=-73(F) 14=-52(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	148989399
HT145	B1	Hip Girder	1	1	Job Reference (optional)	

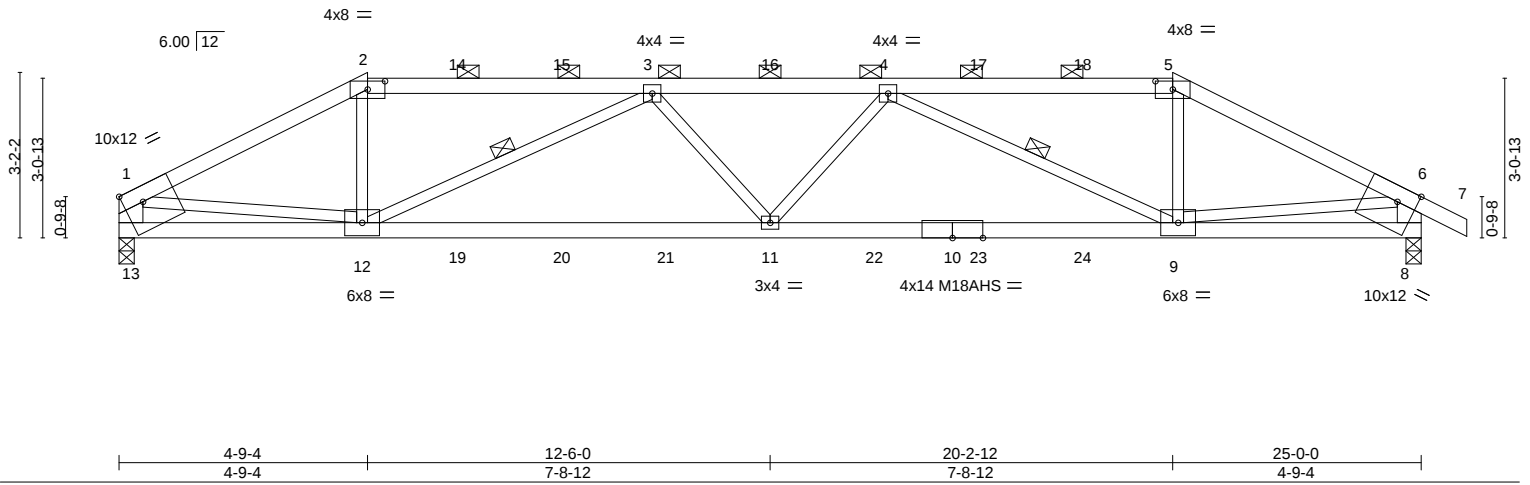
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:05 2021 Page 1

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4-9-4	10-2-13	14-9-3	20-2-12	25-0-0	25-10-8
4-9-4	5-5-9	4-6-5	5-5-9	4-9-4	0-10-8

Scale = 1:44.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.21 11 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.43 11-12 >688 240	M18AHS		142/136	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.82	Horz(CT)	0.09 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.19 11 >999 240				
								Weight: 87 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 2-5: 2x4 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied or 2-10-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-6 max.): 2-5.
BOT CHORD	2x4 SPF 2100F 1.8E	BOT CHORD	Rigid ceiling directly applied or 7-8-2 oc bracing.
WEBS	2x3 SPF No.2 *Except* 1-13,6-8: 2x6 SPF No.2	WEBS	1 Row at midpt 3-12, 4-9

REACTIONS. (size) 13=0-3-8, 8=0-3-8
Max Horz 13=-62(LC 4)
Max Uplift 13=-394(LC 5), 8=-417(LC 9)
Max Grav 13=1850(LC 1), 8=1931(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3086/703, 2-3=-2678/647, 3-4=-4282/991, 4-5=-2664/646, 5-6=-3081/704,
1-13=-1806/398, 6-8=-1888/423
BOT CHORD 12-13=-124/341, 11-12=-1034/4153, 9-11=-1024/4152, 8-9=-139/412
WEBS 2-12=-104/895, 3-12=-1702/502, 3-11=0/349, 4-11=0/349, 4-9=-1710/502, 5-9=-105/906,
1-12=-541/2388, 6-9=-541/2314

- 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 394 lb uplift at joint 13 and 417 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 99 lb down and 92 lb up at 4-9-4, 100 lb down and 92 lb up at 6-6-0, 100 lb down and 92 lb up at 8-6-0, 100 lb down and 92 lb up at 10-6-0, 100 lb down and 92 lb up at 12-6-0, 100 lb down and 92 lb up at 14-6-0, 100 lb down and 92 lb up at 16-6-0, and 100 lb down and 92 lb up at 18-6-0, and 99 lb down and 92 lb up at 20-2-12 on top chord, and 287 lb down and 87 lb up at 4-9-4, 48 lb down at 6-6-0, 48 lb down at 8-6-0, 48 lb down at 10-6-0, 48 lb down at 12-6-0, 48 lb down at 14-6-0, 48 lb down at 16-6-0, and 48 lb down at 18-6-0, and 287 lb down and 87 lb up at 20-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



November 30, 2021

11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

Continued on page 2

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	B1	Hip Girder	1	1	I48989399

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:05 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, 2-5=-70, 5-6=-70, 6-7=-70, 8-13=-20

Concentrated Loads (lb)

Vert: 2=-76(F) 5=-76(F) 12=-287(F) 3=-76(F) 11=-34(F) 4=-76(F) 9=-287(F) 14=-76(F) 15=-76(F) 16=-76(F) 17=-76(F) 18=-76(F) 19=-34(F) 20=-34(F) 21=-34(F) 22=-34(F) 23=-34(F) 24=-34(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	B2	Roof Special Girder	1	1		I48989400

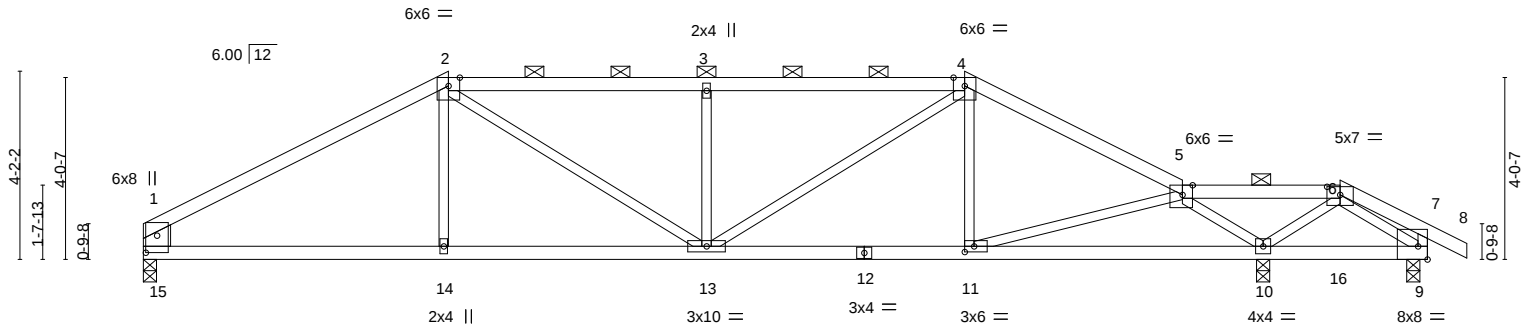
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:07 2021 Page 1

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6-9-4	12-6-0	18-2-12	23-0-12	26-6-12	28-6-0	29-4-8
6-9-4	5-8-12	5-8-12	4-10-0	3-6-0	1-11-4	0-10-8

Scale = 1:51.1



6-9-4	12-6-0	18-2-12	23-0-12	24-10-4	26-6-12	28-4-0	28-6-0
6-9-4	5-8-12	5-8-12	4-10-0	1-9-8	1-8-8	1-9-4	0-2-0

Plate Offsets (X,Y)-- [1:0-4-9,0-3-0], [5:0-2-11,Edge], [6:0-3-8,0-2-3], [9:Edge,0-3-8], [11:0-2-8,0-1-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	-0.16 13-14	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.76	Vert(CT)	-0.30 13-14	>967	240
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.40	Horz(CT)	0.03 10	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.12 13-14	>999	240
				PLATES	GRIP		
				MT20	197/144		
				Weight: 98 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 12-15: 2x4 SPF 2100F 1.8E
 WEBS 2x3 SPF No.2 *Except*
 1-15: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-1-14 max.): 2-4, 5-6.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 15=0-3-8, 10=0-3-8, 9=0-3-8
 Max Horz 15=-75(LC 4)
 Max Uplift 15=-87(LC 29), 10=-182(LC 4), 9=-385(LC 21)
 Max Grav 15=1018(LC 1), 10=1940(LC 1), 9=87(LC 25)

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

TOP CHORD 1-2=-1495/175, 2-3=-1612/251, 3-4=-1612/251, 4-5=-1221/146, 5-6=-163/1504,
 1-15=-881/131
 BOT CHORD 14-15=-135/1233, 13-14=-138/1233, 11-13=-81/1032, 9-10=-678/141
 WEBS 2-13=-141/556, 3-13=-500/198, 4-13=-153/757, 5-11=-83/1112, 5-10=-1859/219,
 6-10=-1051/182, 6-9=-139/709

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 87 lb uplift at joint 15, 182 lb uplift at joint 10 and 385 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) 109 lb down and 102 lb up at 26-6-12 on top chord, and 11 lb down and 4 lb up at 26-6-0 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



November 30, 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.

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	I48989400
HT145	B2	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:07 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, 6-7=-70, 7-8=-70, 9-15=-20
- Concentrated Loads (lb)
- Vert: 16=2(F)

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	148989401
HT145	B3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:08 2021 Page 1
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4-2-5	8-9-4	16-2-12	21-0-12	24-6-12	28-6-0	29-4-8
4-2-5	4-7-0	7-5-8	4-10-0	3-6-0	3-11-4	0-10-8

Scale = 1:51.4

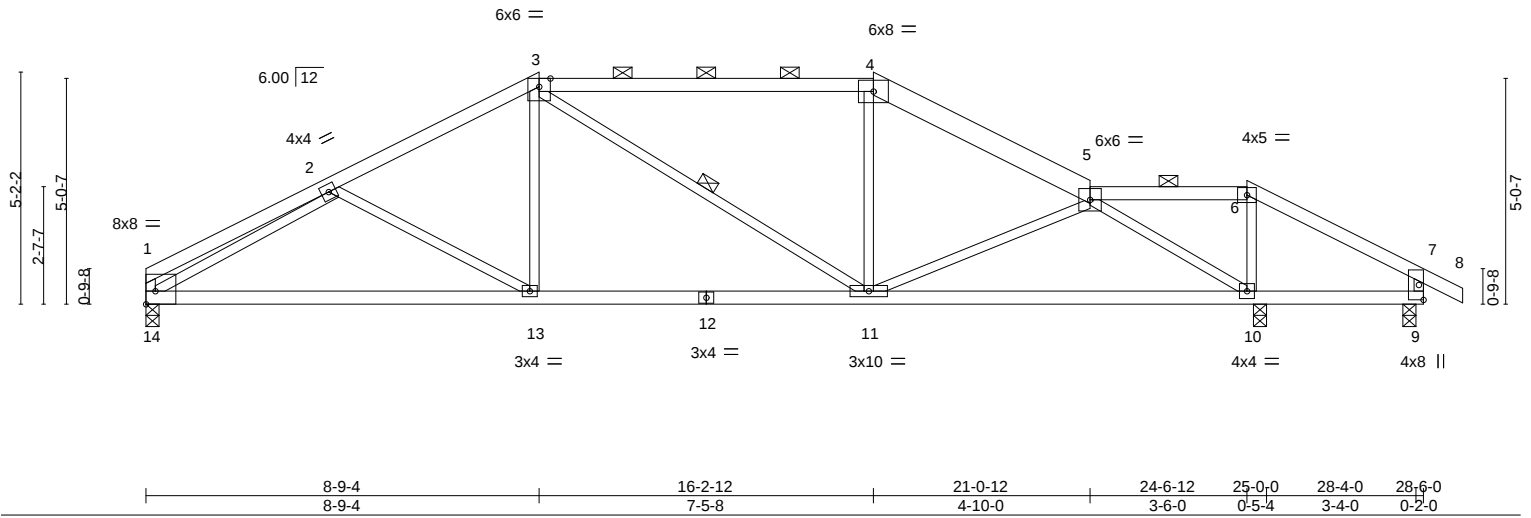


Plate Offsets (X,Y)-- [1:Edge,0-3-8]		8-9-4		16-2-12		21-0-12		24-6-12		25-0-0		28-4-0		28-6-0	
		8-9-4		7-5-8		4-10-0		3-6-0		0-5-4		3-4-0		0-2-0	
LOADING (psf)	SPACING-	2-0-0		CSI.			DEFL.	in (loc)		l/defl		L/d		PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15		TC 0.58			Vert(LL)	-0.14 13-14		>999		360		MT20	197/144
TCDL 10.0	Lumber DOL	1.15		BC 0.62			Vert(CT)	-0.30 13-14		>997		240			
BCLL 0.0 *	Rep Stress Incr	YES		WB 0.78			Horz(CT)	0.05 10		n/a		n/a			
BCDL 10.0	Code IRC2018/TPI2014			Matrix-S			Wind(LL)	0.04 11-13		>999		240		Weight: 105 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 3-4: 2x4 SPF 2100F 1.8E, 4-5: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-11 max.): 3-4, 5-6.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x3 SPF No.2	WEBS 6-0-0 oc bracing: 9-10. 1 Row at midpt 3-11

REACTIONS. (size) 10=0-3-8, 14=0-3-8, 9=0-3-8
Max Horz 14=-86(LC 4)
Max Uplift 10=-95(LC 9), 14=-112(LC 8), 9=-90(LC 9)
Max Grav 10=1495(LC 1), 14=1075(LC 1), 9=69(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-388/19, 2-3=-1504/141, 3-4=-1250/168, 4-5=-1436/144, 6-7=-26/331,
1-14=-282/49
BOT CHORD 13-14=-200/1411, 11-13=-92/1288, 10-11=-153/1159
WEBS 3-13=0/331, 4-11=0/267, 5-11=0/256, 5-10=-1641/176, 6-10=-420/84, 2-14=-1325/203

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 95 lb uplift at joint 10, 112 lb uplift at joint 14 and 90 lb uplift at joint 9.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	C1	Roof Special Girder	1	2	Job Reference (optional)

I48989402

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:11 2021 Page 2
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NOTES-

- 9) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 351 lb uplift at joint 2, 492 lb uplift at joint 22, 345 lb uplift at joint 17 and 248 lb uplift at joint 15.
- 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.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 153 lb down and 69 lb up at 5-11-4, 153 lb down and 69 lb up at 8-0-0, 153 lb down and 69 lb up at 10-0-0, 165 lb down and 71 lb up at 12-0-0, 165 lb down and 71 lb up at 14-0-0, 165 lb down and 71 lb up at 16-0-0, 165 lb down and 71 lb up at 18-0-0, 165 lb down and 71 lb up at 20-0-0, and 165 lb down and 71 lb up at 22-0-0, and 165 lb down and 71 lb up at 24-0-0 on top chord, and 401 lb down and 126 lb up at 5-11-4, 68 lb down at 8-0-0, 68 lb down at 10-0-0, 70 lb down at 12-0-0, 70 lb down at 14-0-0, 70 lb down at 16-0-0, 70 lb down at 18-0-0, 70 lb down at 20-0-0, and 70 lb down at 22-0-0, and 70 lb down 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: 1-4=-70, 4-9=-70, 9-10=-70, 10-11=-70, 11-12=-70, 12-13=-70, 13-16=-70, 2-28=-20, 23-28=-20, 15-22=-20
 - Concentrated Loads (lb)
 - Vert: 4=-103(F) 7=-115(F) 27=-401(F) 29=-103(F) 30=-103(F) 31=-115(F) 32=-115(F) 33=-115(F) 34=-115(F) 35=-115(F) 36=-115(F) 37=-43(F) 38=-43(F) 39=-49(F) 40=-49(F) 41=-49(F) 42=-49(F) 43=-49(F) 44=-49(F) 45=-49(F)



Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989403
HT145	C2	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:14 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-luJc9uFFuVq?CqpXJtsY48r3rKg70gemEwyD_yEKRN
0-10-8 2-8-5 | 7-11-4 | 13-9-1 | 19-8-2 | 25-6-0 | 33-5-4 | 38-0-0 | 42-6-12 | 46-0-12 | 50-4-4 | 54-0-0 | 54-10-8
0-10-8 2-8-5 | 5-2-15 | 5-9-13 | 5-11-1 | 5-9-14 | 7-11-4 | 4-6-12 | 4-6-12 | 3-6-0 | 4-3-8 | 3-7-12 | 0-10-8

Scale = 1:99.2

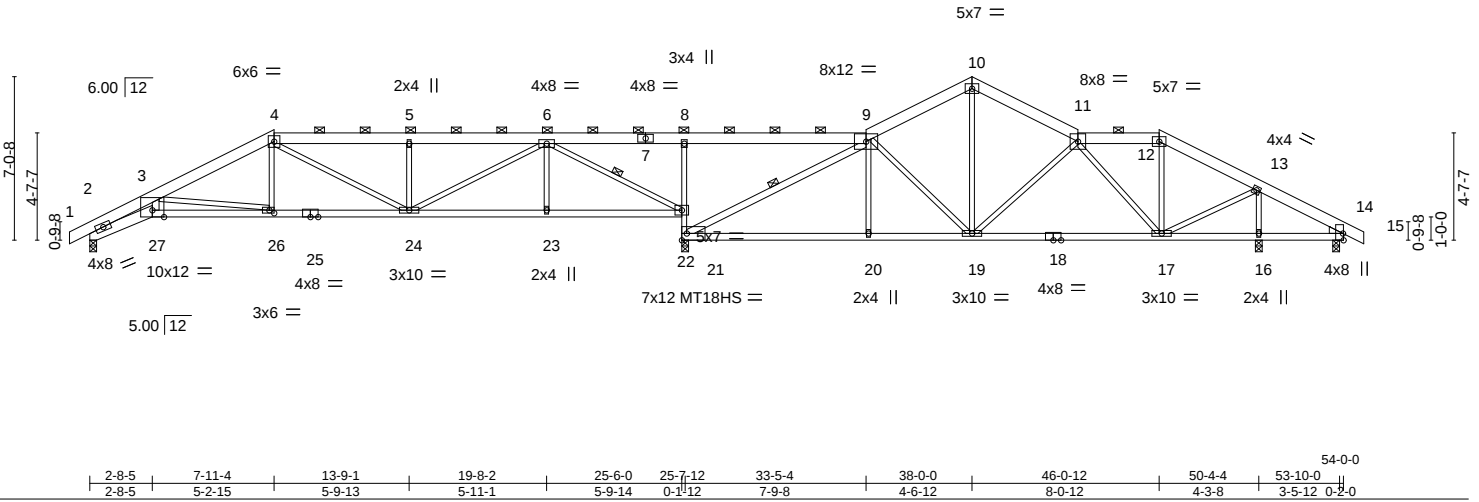


Plate Offsets (X,Y)-- [14:Edge,0-0-5], [26:0-2-8,0-1-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.74	Vert(LL)	-0.15	26-27	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.86	Vert(CT)	-0.28	26-27	>999	MT18HS	197/144
BCLL 0.0 *	Lumber DOL 1.15	WB 0.77	Horz(CT)	0.11	16	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.13	26-27	>999		
	Code IRC2018/TPI2014						Weight: 244 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-4-8 oc purlins, except
BOT CHORD 2x4 SPF No.2 *Except*	2-0-0 oc purlins (4-10-10 max.): 4-9, 11-12.
2-27: 2x6 SP DSS, 8-21: 2x3 SPF No.2	Rigid ceiling directly applied or 2-8-1 oc bracing.
18-21,22-25: 2x4 SPF 2100F 1.8E	1 Row at midpt 6-22, 9-21
WEBS 2x3 SPF No.2 *Except*	
3-27,9-21: 2x4 SPF No.2	
WEDGE	
Right: 2x4 SPF No.2	

REACTIONS. All bearings 0-3-8.
(lb) - Max Horz 2=118(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 14 except 2=216(LC 8), 21=392(LC 8), 16=219(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 14 except 2=1163(LC 21), 21=2343(LC 1), 16=1481(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3791/782, 3-4=-2044/397, 4-5=-2063/433, 5-6=-2061/431, 6-8=-24/314, 8-9=-12/290, 9-10=-1069/239, 10-11=-1063/217, 11-12=-708/183, 12-13=-867/171, 13-14=-40/440
BOT CHORD 2-27=-771/3288, 26-27=-672/2814, 24-26=-345/1811, 23-24=-210/1308, 22-23=-210/1308, 21-22=-1532/362, 8-22=-603/229, 20-21=-69/1126, 19-20=-68/1129, 17-19=-82/1123, 16-17=-300/60, 14-16=-300/60
WEBS 3-27=-234/1282, 3-26=-1007/331, 4-26=0/340, 4-24=-178/288, 5-24=-443/188, 6-24=-188/868, 6-22=-1778/332, 9-21=-1551/159, 9-20=0/269, 9-19=-363/102, 10-19=-101/574, 11-19=-369/172, 11-17=-646/119, 13-17=-74/1143, 13-16=-1405/248

- 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.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 2=216, 21=392, 16=219.

Continued on page 2

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November 30, 2021

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989403
HT145	C2	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:14 2021 Page 2
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-luJc9uFFuVq?CqpXJtsY48r3rKg70gernEwyD_yEKRN

- NOTES-**
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	C3	Roof Special	1	1	148989404

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:16 2021 Page 1

ID:SeH2eHhJU9RSOs7cPHZHy9y3WgO-hHRMaaHVQ74jR8zwQlu09ZwPp8LVuan8EYP3HtyEKRL

0-10-8 2-8-5 9-11-4 17-8-10 25-6-0 30-7-6 35-5-4 38-0-0 40-6-12 44-0-12 50-4-4 54-0-0 54-10-8
0-10-8 2-8-5 7-2-15 7-9-6 7-9-6 5-1-6 4-9-14 2-6-12 2-6-12 3-6-0 6-3-8 3-7-12 0-10-8

Scale = 1:99.2

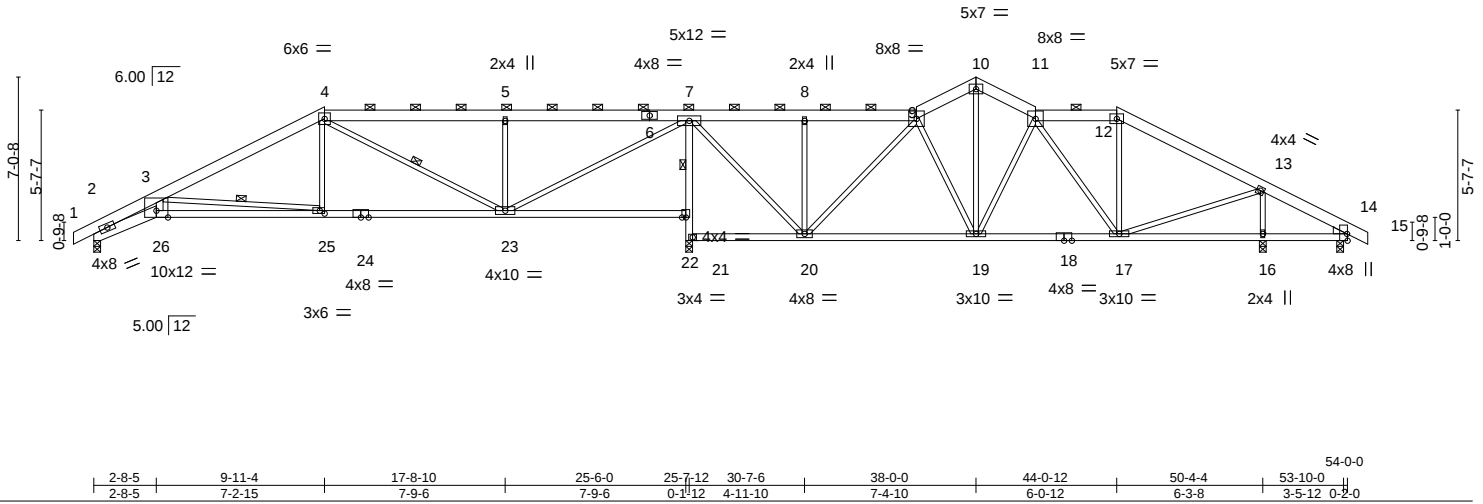


Plate Offsets (X,Y)-- [14:Edge,0-0-5], [25:0-2-8,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.71	Vert(LL) -0.19	25-26	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.93	Vert(CT) -0.38	25-26	>806	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.80	Horz(CT) 0.12	16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.17	25-26	>999	240	Weight: 250 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-5-8 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-9, 11-12.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
2-26: 2x6 SP 2400F 2.0E	1 Row at midpt 7-22
WEBS 2x3 SPF No.2 *Except*	WEBS 1 Row at midpt 3-25, 4-23
3-26: 2x4 SPF No.2	
WEDGE	
Right: 2x4 SPF No.2	

REACTIONS. All bearings 0-3-8.
(lb) - Max Horz 2=-118(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 14 except 2=-220(LC 8), 16=-223(LC 9), 21=-386(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 14 except 2=1139(LC 21), 16=1337(LC 1), 21=2414(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3859/852, 3-4=-1744/356, 4-5=-1233/324, 5-7=-1231/323, 7-8=-511/241, 8-9=-513/242, 9-10=-993/271, 10-11=-976/257, 11-12=-827/242, 12-13=-1030/220
BOT CHORD 2-26=-841/3370, 25-26=-740/2881, 23-25=-280/1507, 22-23=-395/70, 21-22=-2394/411, 7-22=-2309/451, 20-21=-348/57, 19-20=-60/945, 17-19=-49/1006
WEBS 3-26=-238/1331, 3-25=-1375/464, 4-25=0/415, 4-23=-354/63, 5-23=-556/251, 7-23=-335/1819, 7-20=-117/1250, 9-20=-645/55, 10-19=-170/652, 11-19=-384/157, 11-17=-318/67, 13-17=-62/972, 13-16=-1218/287, 8-20=-276/133

- 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.
 - Bearing at joint(s) 2, 21 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) 14 except (jt=lb) 2=220, 16=223, 21=386.
 - 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.



November 30, 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	Lot 145 HT	
HT145	C4	Half Hip	1	1		I48989405

Wheeler Lumber, Waverly, KS - 66871,

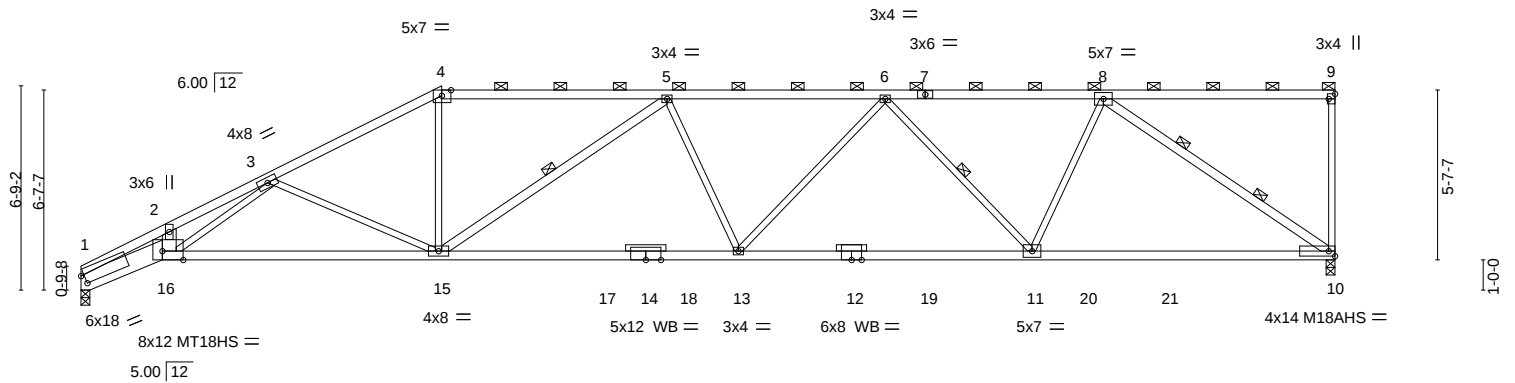
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:17 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-9T?Invi7BQC3iY6_0PFinTYoXitDOWHTC9cpJyEKRK

Job Reference (optional)

2-8-5	6-3-8	11-11-4	19-4-12	26-7-6	33-10-1	41-6-0
2-8-5	3-7-3	5-7-12	7-5-7	7-2-11	7-2-11	7-8-0

Scale = 1:76.3



2-8-5	11-11-4	21-9-1	31-5-11	41-6-0
2-8-5	9-2-15	9-9-13	9-8-10	10-0-5

Plate Offsets (X,Y)-- [1:0-1-4,0-3-9], [4:0-3-10,Edge], [9:Edge,0-2-8], [16:0-8-4,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 0.89	Vert(LL)	-0.47 13-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.82 13-15	>604	240	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.35 10	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.26 15-16	>999	240	Weight: 164 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
7-9: 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E *Except*
1-16: 2x8 SP DSS
WEBS 2x3 SPF No.2 *Except*
2-16: 2x6 SPF No.2, 5-15,8-10: 2x4 SPF No.2
OTHERS 2x3 SPF No.2

REACTIONS.

(size) 1=0-3-8, 10=0-3-8
Max Horz 1=243(LC 5)
Max Uplift 1=-167(LC 5), 10=-339(LC 5)
Max Grav 1=1950(LC 2), 10=1983(LC 2)

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

TOP CHORD 1-2=-7417/928, 2-3=-6388/858, 3-4=-3609/477, 4-5=-3149/448, 5-6=-3871/574,
6-8=-2877/423
BOT CHORD 1-16=-1047/6534, 15-16=-706/4002, 13-15=-712/3860, 11-13=-667/3553,
10-11=-469/2358
WEBS 2-16=-127/1330, 3-16=-297/2144, 3-15=-939/311, 4-15=-73/1231, 5-15=-988/296,
6-13=0/471, 6-11=-1023/257, 8-11=-60/1283, 8-10=-2853/517

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, with BCDL = 10.0psf.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=167, 10=339.
- 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.



November 30,2021

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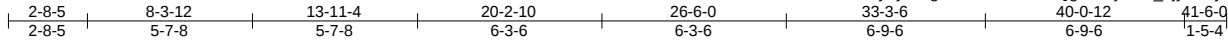
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	C5	Hip	1	1		I48989406

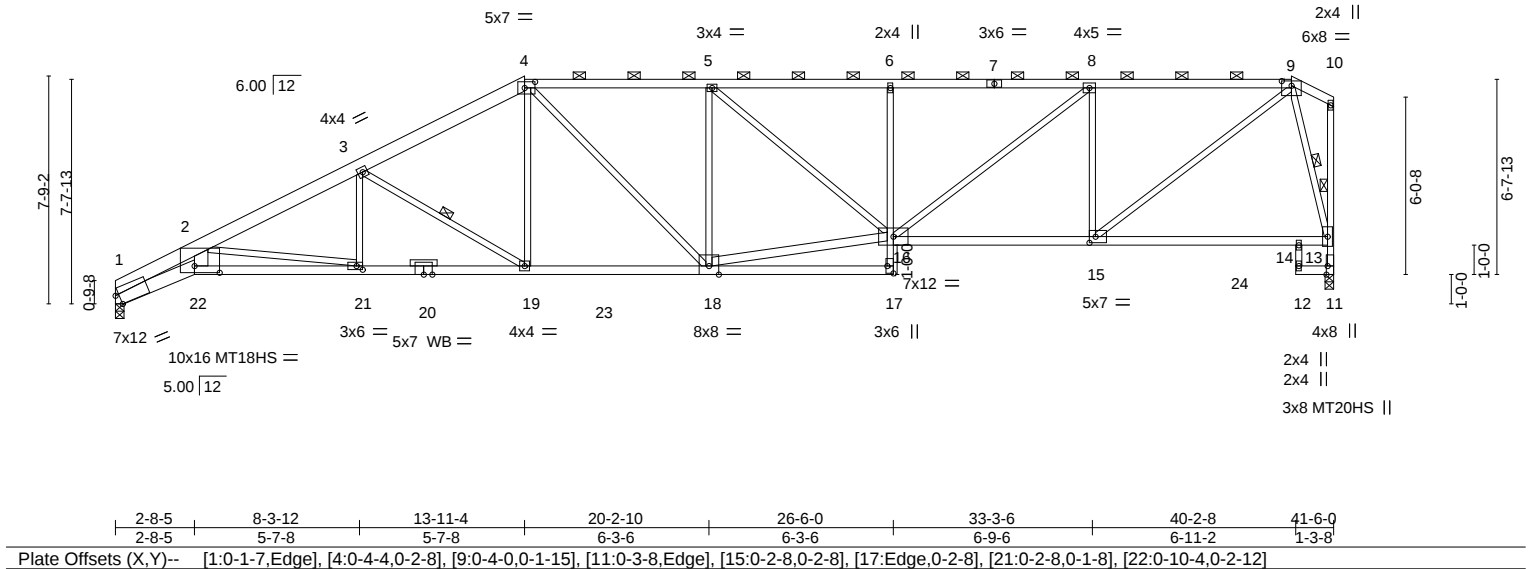
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:18 2021 Page 1

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Scale = 1:78.5



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) -0.35	18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.97	Vert(CT) -0.61	18-19	>815	240	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr YES	WB 0.98	Horz(CT) 0.43	11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.24	18	>999	240	Weight: 197 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x6 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
1-22: 2x6 SP DSS, 20-22,17-20: 2x4 SPF 2100F 1.8E
6-17: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-22: 2x6 SPF No.2, 16-18: 2x4 SPF No.2
OTHERS 2x3 SPF No.2

REACTIONS.

(size) 1=0-3-8, 11=0-3-8
Max Horz 1=273(LC 5)
Max Uplift 1=-172(LC 8), 11=-297(LC 5)
Max Grav 1=1933(LC 2), 11=1968(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7050/870, 2-3=-4118/455, 3-4=-3254/436, 4-5=-3195/489, 5-6=-3469/563,
6-8=-3479/565, 8-9=-2445/381, 11-13=-1934/303
BOT CHORD 1-22=-1025/6171, 21-22=-861/5055, 19-21=-602/3704, 18-19=-500/2844, 6-16=-438/181,
15-16=-470/2444, 14-15=-153/471, 13-14=-153/471
WEBS 2-22=-333/2474, 2-21=-1368/321, 3-21=0/417, 3-19=-1026/268, 4-19=-71/772,
4-18=-198/660, 5-18=-761/265, 16-18=-565/3113, 5-16=-112/451, 8-16=-234/1313,
8-15=-1321/361, 9-15=-406/2524, 9-13=-1850/417

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, with BCDL = 10.0psf.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=172, 11=297.
- 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.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	148989407
HT145	C6	Hip	1	1	Job Reference (optional)	

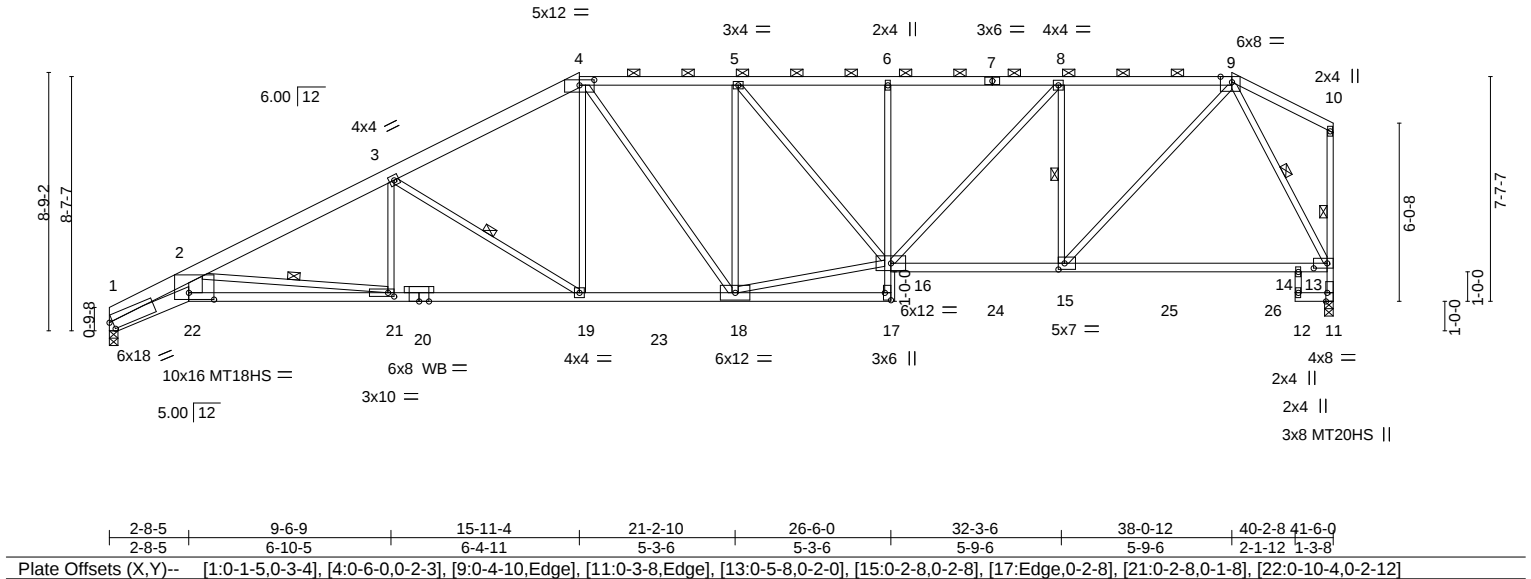
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:19 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-5s6VCbJOi2THbiV5QrjnCYueLmghuoawWejuCyEKRI

2-8-5	9-6-9	15-11-4	21-2-10	26-6-0	32-3-6	38-0-12	40-2-8	41-6-0
2-8-5	6-10-5	6-4-11	5-3-6	5-3-6	5-9-6	5-9-6	2-1-12	1-3-8

Scale = 1:78.1



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 0.80	Vert(LL)	-0.35 21-22	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.62 21-22	>800	240	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.47 11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.22 21-22	>999	240	Weight: 204 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-4: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-3 max.): 4-9.
BOT CHORD 2x4 SPF No.2 *Except* 1-22: 2x6 SP DSS, 20-22,13-16: 2x4 SPF 2100F 1.8E 6-17: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-22: 2x6 SPF No.2	WEBS 1 Row at midpt 2-21, 3-19, 8-15, 9-13, 10-11
OTHERS 2x3 SPF No.2	

REACTIONS. (size) 1=0-3-8, 11=0-3-8
Max Horz 1=286(LC 5)
Max Uplift 1=-191(LC 8), 11=-234(LC 5)
Max Grav 1=1943(LC 2), 11=2014(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-7164/883, 2-3=-3968/389, 3-4=-3034/375, 4-5=-2796/401, 5-6=-2977/450,
6-8=-2983/451, 8-9=-2305/327, 11-13=-1979/241
BOT CHORD 1-22=-968/6280, 21-22=-819/5135, 19-21=-535/3549, 18-19=-435/2633, 6-16=-372/153,
15-16=-405/2303, 14-15=-214/933, 13-14=-214/933
WEBS 2-22=-302/2543, 2-21=-1598/403, 3-21=0/456, 3-19=-1102/297, 4-19=-92/816,
4-18=-171/455, 5-18=-677/233, 16-18=-473/2697, 5-16=-94/365, 8-16=-184/1004,
8-15=-1203/324, 9-15=-284/2052, 9-13=-1943/350

- 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, with BCDL = 10.0psf.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=191, 11=234.
 - 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.



November 30, 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	Lot 145 HT	
HT145	C7	Hip	1	1		I48989408

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:20 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-a2gtQxK0TLb8wIHhf8yyKP52NikhQLk9ANGQeyEKRH

2-8-5	9-6-9	17-11-4	22-2-10	26-6-0	31-3-6	36-0-12	40-2-8	41-6-0
2-8-5	6-10-4	8-4-11	4-3-6	4-3-6	4-9-6	4-9-6	4-1-12	1-3-8

Scale = 1:78.5

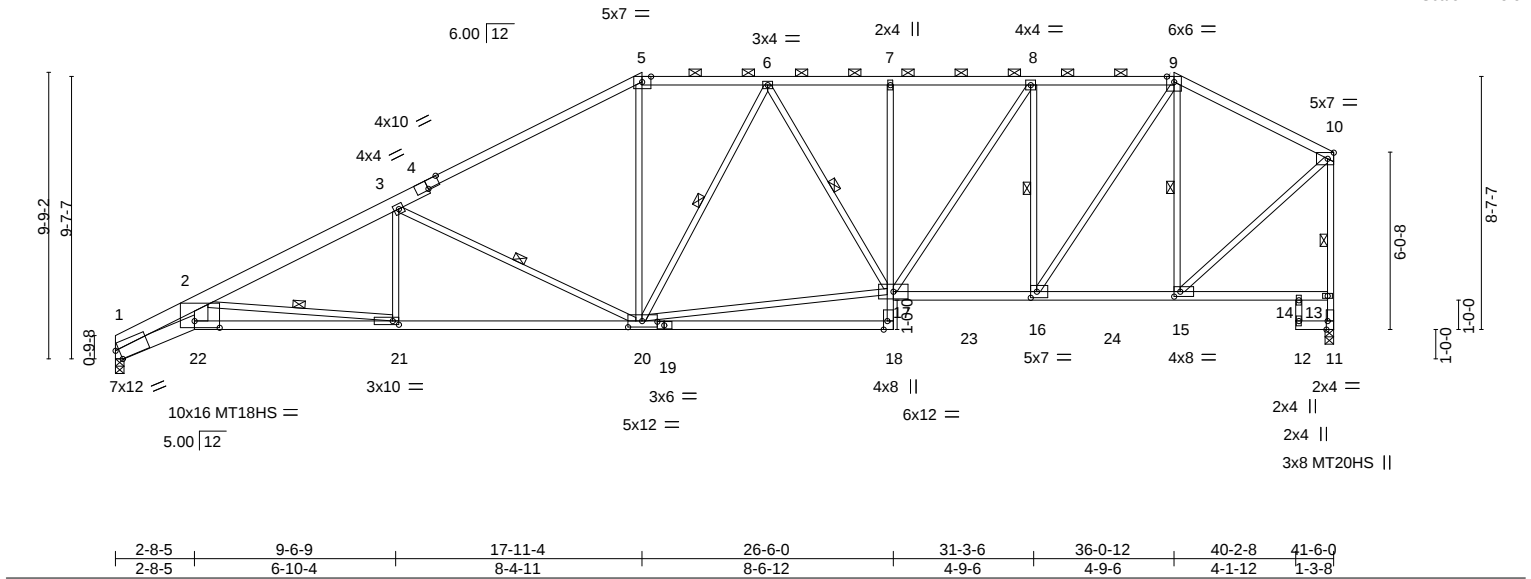


Plate Offsets (X,Y)--	[1:0-1-7,Edge], [4:0-5-0,Edge], [5:0-3-10,Edge], [11:0-3-8,Edge], [15:0-2-8,0-2-0], [16:0-2-8,0-2-8], [18:0-3-8,Edge], [19:0-2-13,0-1-8], [20:0-5-12,0-2-8], [21:0-2-8,0-1-8], [22:0-10-4,0-2-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.35 18-20	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.66 18-20	>748	240	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.99	Horz(CT)	0.37 11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.22 21-22	>999	240	Weight: 204 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-5: 2x4 SPF 2100F 1.8E, 1-4: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-1 max.): 5-9.
BOT CHORD 2x4 SPF No.2 *Except* 1-22: 2x6 SP DSS, 19-22: 2x4 SPF 2100F 1.8E, 7-18: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-7-12 oc bracing: 1-22 8-7-7 oc bracing: 21-22.
WEBS 2x3 SPF No.2 *Except* 2-22: 2x6 SPF No.2	WEBS 1 Row at midpt 2-21, 3-20, 6-20, 6-17, 9-15, 10-11, 8-16

REACTIONS.	(size) 1=0-3-8, 11=0-3-8
Max Horz 1=298(LC 5)	
Max Uplift 1=-208(LC 8), 11=-172(LC 5)	
Max Grav 1=1923(LC 2), 11=1979(LC 2)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-7090/932, 2-3=-3913/459, 3-5=-2801/302, 5-6=-2372/315, 6-7=-2540/353, 7-8=-2546/354, 8-9=-2077/282, 9-10=-1453/187, 11-13=-1952/176, 10-13=-1881/193
BOT CHORD	1-22=-993/6215, 21-22=-837/5084, 20-21=-498/3500, 7-17=-318/127, 16-17=-348/2075, 15-16=-211/1262
WEBS	2-22=-314/2513, 2-21=-1596/354, 3-21=0/472, 3-20=-1251/387, 5-20=-26/896, 6-20=-517/201, 17-20=-424/2337, 8-17=-133/861, 9-16=-251/1524, 9-15=-958/210, 10-15=-202/1668, 8-16=-1103/267

- 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, with BCDL = 10.0psf.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=208, 11=172.
 - 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.



November 30, 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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	C8	Roof Special	1	1		148989409

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:22 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-WRoedqLG?zrs93Q4nZ?QPqAO8YN7uHE1cUsNVXyEKRF

2-8-5	5-9-4	7-9-4	13-6-9	19-11-4	25-6-0	31-0-12	31-10-12	34-10-12	35-3-8
2-8-5	3-0-15	2-0-0	5-9-5	6-4-11	5-6-12	5-6-12	0-10-0	3-0-0	0-4-12

Scale = 1:70.9

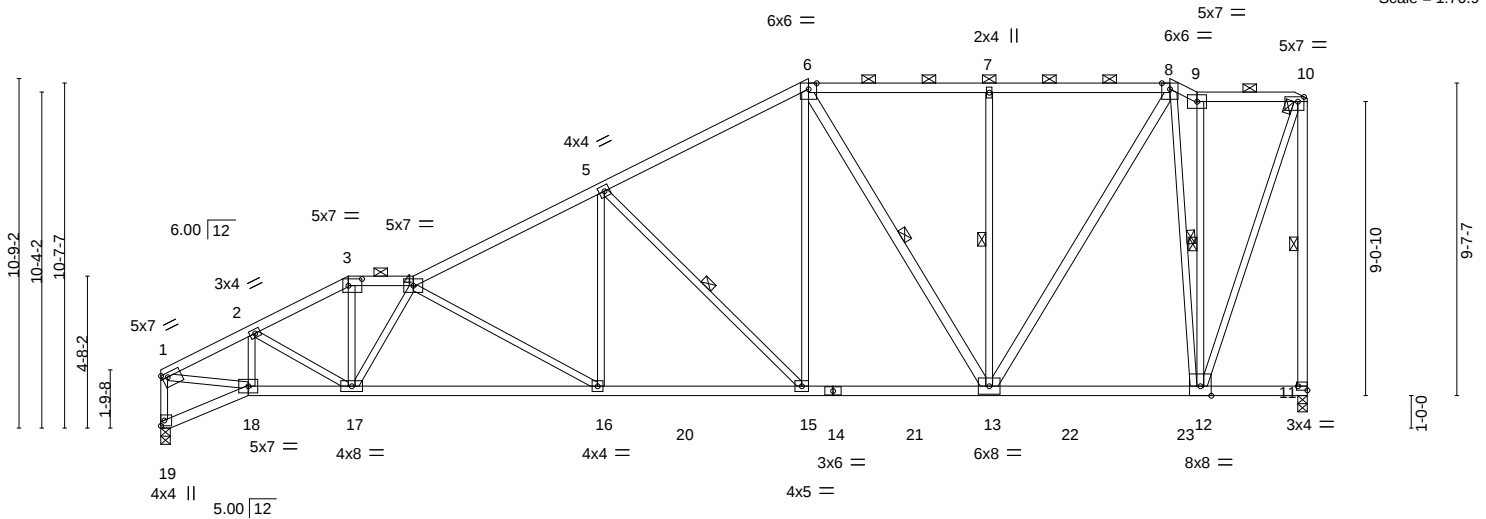


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [3:0-5-0,0-2-8], [10:0-2-4,Edge], [11:Edge,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.85	Vert(LL)	-0.22	16-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.41	16-17	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.86	Horz(CT)	0.15	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.13	16	>999	240	Weight: 185 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-13,8-13,10-11: 2x4 SPF No.2

REACTIONS.

(size) 19=0-3-8, 11=0-3-8
Max Horz 19=404(LC 5)
Max Uplift 19=-206(LC 8), 11=-246(LC 5)
Max Grav 19=1670(LC 2), 11=1711(LC 2)

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

TOP CHORD 1-2=-2478/417, 2-3=-2721/390, 3-4=-2441/373, 4-5=-2629/352, 5-6=-1871/282,
6-7=-1321/216, 7-8=-1323/217, 8-9=-642/137, 9-10=-585/127, 1-19=-1617/287,
10-11=-1685/229
BOT CHORD 18-19=-425/131, 17-18=-587/2204, 16-17=-509/2977, 15-16=-368/2313, 13-15=-299/1589,
12-13=-172/662
WEBS 2-18=-436/40, 2-17=-27/318, 3-17=-115/1057, 4-17=-1095/159, 4-16=-769/232,
5-16=-28/676, 5-15=-1007/285, 6-15=-136/946, 6-13=-556/150, 7-13=-479/190,
8-13=-191/1295, 8-12=-1004/226, 9-12=-372/78, 10-12=-221/1690, 1-18=-357/2200

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.
- Bearing at joint(s) 19 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=206, 11=246.
- 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.



November 30,2021

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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	Lot 145 HT	
HT145	C9	Roof Special	1	1		I48989410

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:23 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-_dM02zMumGzjD?GKGWfx2jeGymOd?Ar8cx1zyEKRE

Job Reference (optional)

2-8-5	7-9-4	9-9-4	13-6-10	19-11-4	25-6-0	31-0-12	35-3-8
2-8-5	5-0-15	2-0-0	3-9-6	6-4-10	5-6-12	5-6-12	4-2-12

6x6 =

2x4 ||

6x6 =

Scale = 1:68.8

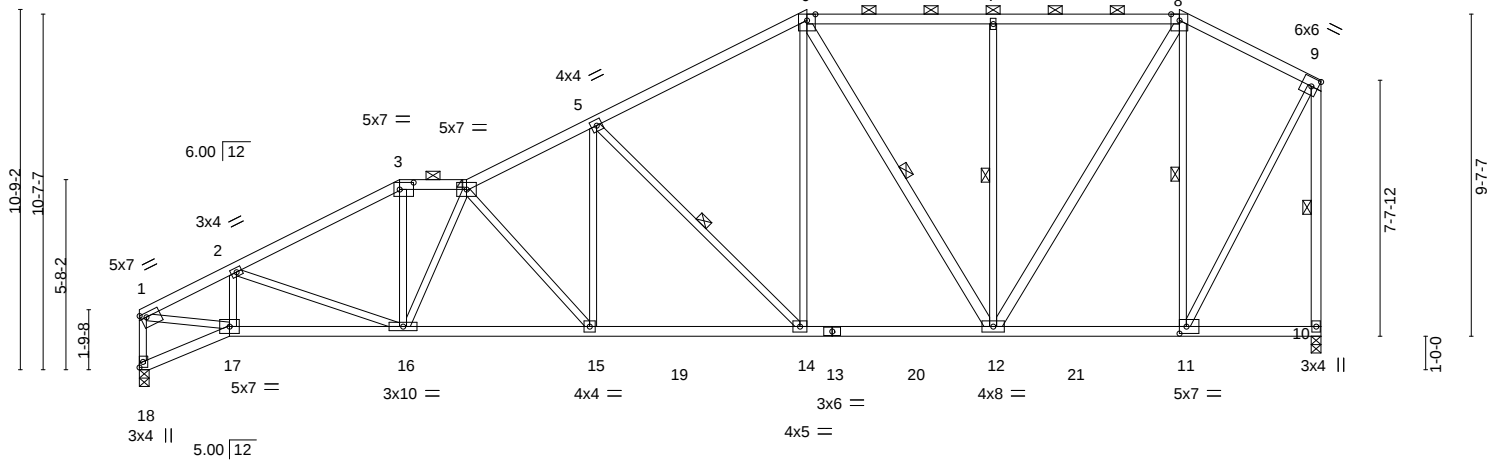


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [3:0-5-0,0-2-8], [11:0-2-8,0-2-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.57	Vert(LL) -0.20	14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.78	Vert(CT) -0.34	14-15	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.83	Horz(CT) 0.14	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.12	15	>999	240	Weight: 177 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 6-12,8-12,9-10: 2x4 SPF No.2

REACTIONS.

(size) 18=0-3-8, 10=0-3-8
 Max Horz 18=355(LC 5)
 Max Uplift 18=-207(LC 8), 10=-143(LC 5)
 Max Grav 18=1669(LC 2), 10=1708(LC 2)

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

TOP CHORD 1-2=-2526/426, 2-3=-2679/380, 3-4=-2359/377, 4-5=-2579/364, 5-6=-1870/282,
 6-7=-1315/220, 7-8=-1316/220, 8-9=-786/153, 1-18=-1628/280, 9-10=-1657/149
 BOT CHORD 17-18=-369/146, 16-17=-529/2255, 15-16=-415/2686, 14-15=-329/2296, 12-14=-262/1591,
 11-12=-144/676
 WEBS 2-17=-361/69, 3-16=-48/925, 4-16=-823/68, 4-15=-597/170, 5-15=-55/689,
 5-14=-981/283, 6-14=-128/951, 6-12=-570/147, 7-12=-464/191, 8-12=-185/1265,
 8-11=-1016/226, 1-17=-375/2264, 9-11=-169/1392

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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 18 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 18=207, 10=143.
- 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.



November 30, 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	Lot 145 HT	
HT145	C10	Roof Special	1	1		I48989411

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:13 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-HilEyYEd7Ci8agELIAKJXxlwxwOOHAGiYaBPgYyEKRO

2-3-8	4-8-5	11-9-4	13-9-4	19-11-4	23-11-0	29-5-14	35-0-12	37-3-8
2-3-8	2-4-13	7-0-15	2-0-0	6-2-0	3-11-12	5-6-14	5-6-14	2-2-12

Scale = 1:70.5

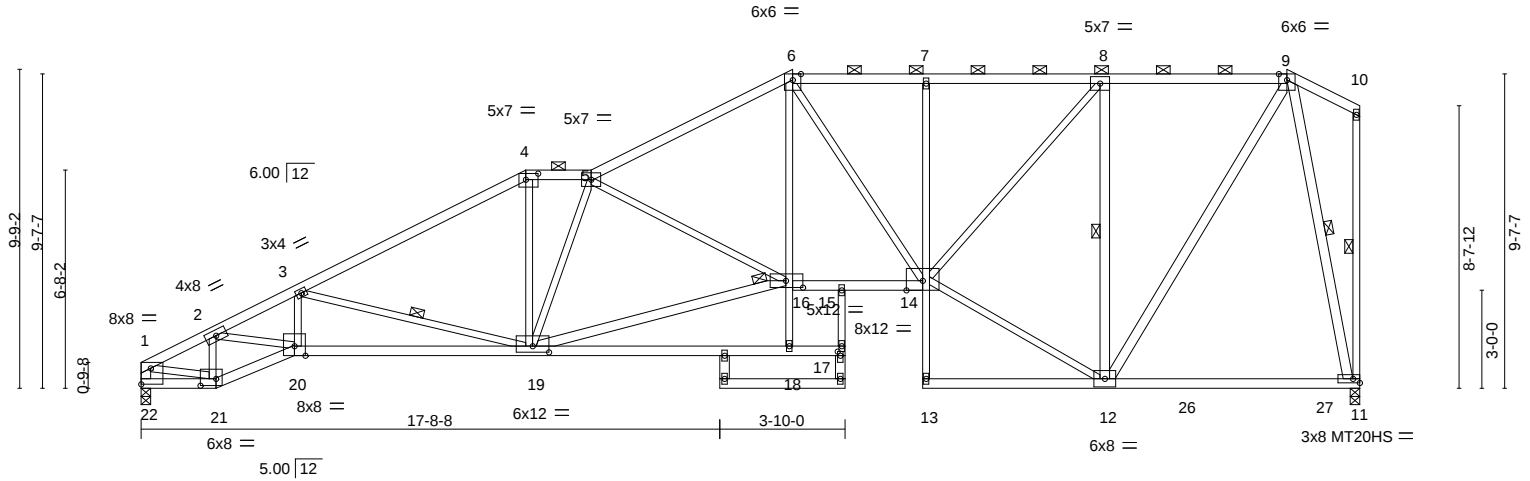


Plate Offsets (X,Y)--	[1:Edge,0-5-13], [4:0-4-8,0-2-4], [16:0-6-4,0-2-8], [17:0-1-8,0-1-0], [19:0-6-0,0-2-4], [21:0-5-12,0-2-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.63	Vert(LL) -0.28	18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.70	Vert(CT) -0.51	18-19	>875	240	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr YES	WB 0.98	Horz(CT) 0.28	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.18	18-19	>999	240	Weight: 204 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-4,5-6: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-5-10 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-1 max.): 4-5, 6-9.
BOT CHORD 2x4 SPF No.2 *Except* 17-20: 2x4 SPF 2100F 1.8E, 15-17,7-13: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 8-12,9-12,1-22,9-11,16-19,23-25,17-24: 2x4 SPF No.2	WEBS 1 Row at midpt 3-19, 8-12, 10-11, 9-11
	JOINTS 1 Brace at Jt(s): 16

REACTIONS. (size) 22=0-3-8, 11=0-3-8
Max Horz 22=329(LC 8)
Max Uplift 22=-198(LC 8), 11=-194(LC 5)
Max Grav 22=1729(LC 2), 11=1784(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2406/269, 2-3=-4322/703, 3-4=-3020/375, 4-5=-2659/387, 5-6=-2897/353,
6-7=-2360/307, 7-8=-2356/305, 8-9=-1195/163, 1-22=-1658/212
BOT CHORD 21-22=-353/271, 20-21=-572/2201, 19-20=-913/3839, 15-16=-331/2492, 14-15=-341/2538,
7-14=-363/146, 11-12=-54/364
WEBS 2-21=-1280/285, 2-20=-399/1906, 3-20=-67/576, 3-19=-1262/442, 4-19=-31/1023,
5-19=-1216/162, 5-16=-579/223, 16-18=0/262, 6-16=-154/1253, 6-14=-386/147,
12-14=-173/1351, 8-14=-252/1781, 8-12=-1759/349, 9-12=-194/1631, 1-21=-200/1886,
9-11=-1633/250, 16-19=-547/3069

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 198 lb uplift at joint 22 and 194 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.



November 30,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989412
HT145	D1	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:24 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-SpwOFJNWxa5aPNaSu_1uUFFnSM9GMBNJ4oLUZPyEKRD

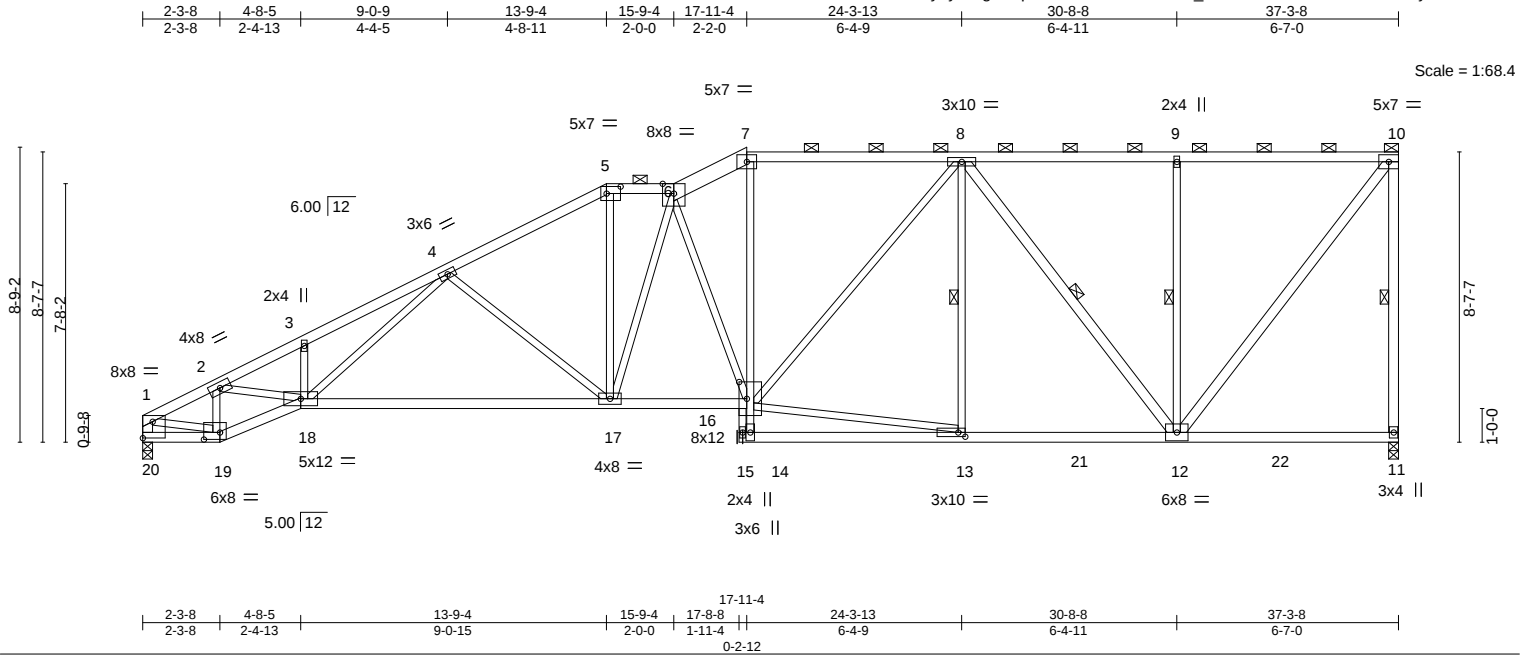


Plate Offsets (X,Y)-- [1:Edge,0-5-13], [5:0-5-0,0-2-8], [13:0-2-8,0-1-8], [16:0-6-0,0-2-12], [19:0-5-12,0-2-8]

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 0.67	Vert(LL)	-0.32 17-18	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.61 17-18	>724	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.17 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.15 17-18	>999	240	Weight: 186 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
6-7: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
16-18,11-15: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
10-11,8-12,10-12,1-20: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-5-15 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-9 max.): 5-6, 7-10.
BOT CHORD Rigid ceiling directly applied or 9-0-2 oc bracing.
WEBS 1 Row at midpt 10-11, 8-13, 8-12, 9-12

REACTIONS.

(size) 11=0-3-8, 20=0-3-8
Max Horz 20=345(LC 5)
Max Uplift 11=-280(LC 5), 20=-203(LC 8)
Max Grav 11=1799(LC 2), 20=1731(LC 2)

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

TOP CHORD 1-2=-2430/294, 2-3=-4246/547, 3-4=-4245/626, 4-5=-2740/335, 5-6=-2406/332,
6-7=-2437/310, 7-8=-2214/301, 8-9=-1177/211, 9-10=-1177/211, 10-11=-1666/302,
1-20=-1654/215
BOT CHORD 19-20=-326/282, 18-19=-421/2235, 17-18=-493/2909, 16-17=-409/2486, 12-13=-342/1815
WEBS 15-16=-600/0, 2-19=-1304/219, 2-18=-203/1764, 4-18=-220/1185, 4-17=-706/264,
5-17=-54/1008, 6-17=-359/151, 6-16=-835/200, 13-16=-364/1669, 8-16=-135/608,
8-12=-1048/149, 9-12=-485/210, 10-12=-292/1904, 1-19=-230/1960, 14-16=0/722,
7-16=-57/725

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) 11=280, 20=203.
- 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	Lot 145 HT	i48989413
HT145	D2	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:25 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-w0UmTfO9luDR0W9eShY71ToukmRa5fCTIS515syEKRC

-Q-10-8	7-6-9	13-11-4	21-7-7	29-4-13	37-3-8
0-10-8	7-6-9	6-4-11	7-8-3	7-9-7	7-10-11

Scale = 1:65.2

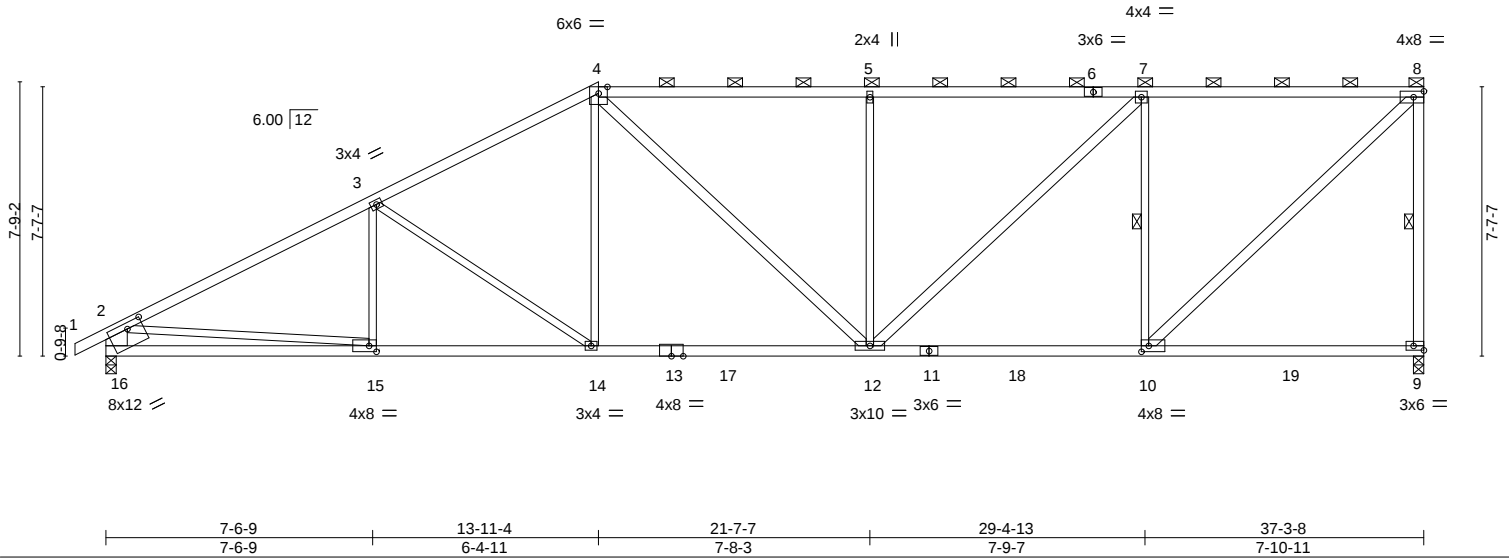


Plate Offsets (X,Y)--	[9:Edge,0-1-8], [10:0-2-8,0-2-0], [15:0-2-8,0-2-0], [16:0-5-4,0-2-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.96	Vert(LL) -0.23	12-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.87	Vert(CT) -0.41	12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Horz(CT) 0.08	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.10	12	>999	240	Weight: 165 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-6: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 2-6-5 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 4-8.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 8-11-13 oc bracing.
WEBS 2x3 SPF No.2 *Except* 8-9,4-12,7-12,8-10: 2x4 SPF No.2, 2-16: 2x8 SP DSS	WEBS 1 Row at midpt 8-9, 7-10

REACTIONS. (size) 9=0-3-8, 16=0-3-8
Max Horz 16=313(LC 7)
Max Uplift 9=300(LC 5), 16=193(LC 8)
Max Grav 9=1820(LC 2), 16=1822(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2871/259, 3-4=-2441/277, 4-5=-2256/312, 5-7=-2254/311, 7-8=-1576/265,
8-9=-1663/333, 2-16=-1691/234
BOT CHORD 15-16=-361/694, 14-15=-427/2477, 12-14=-391/2107, 10-12=-321/1576
WEBS 3-14=-475/210, 4-14=-36/561, 4-12=-161/381, 5-12=-591/243, 7-12=-153/932,
7-10=-1188/351, 8-10=-353/2137, 2-15=-66/1812

- 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) 9=300, 16=193.
 - 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.



November 30,2021

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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	Lot 145 HT	
HT145	D3	Half Hip	1	1		I48989414

Wheeler Lumber, Waverly, KS - 66871,

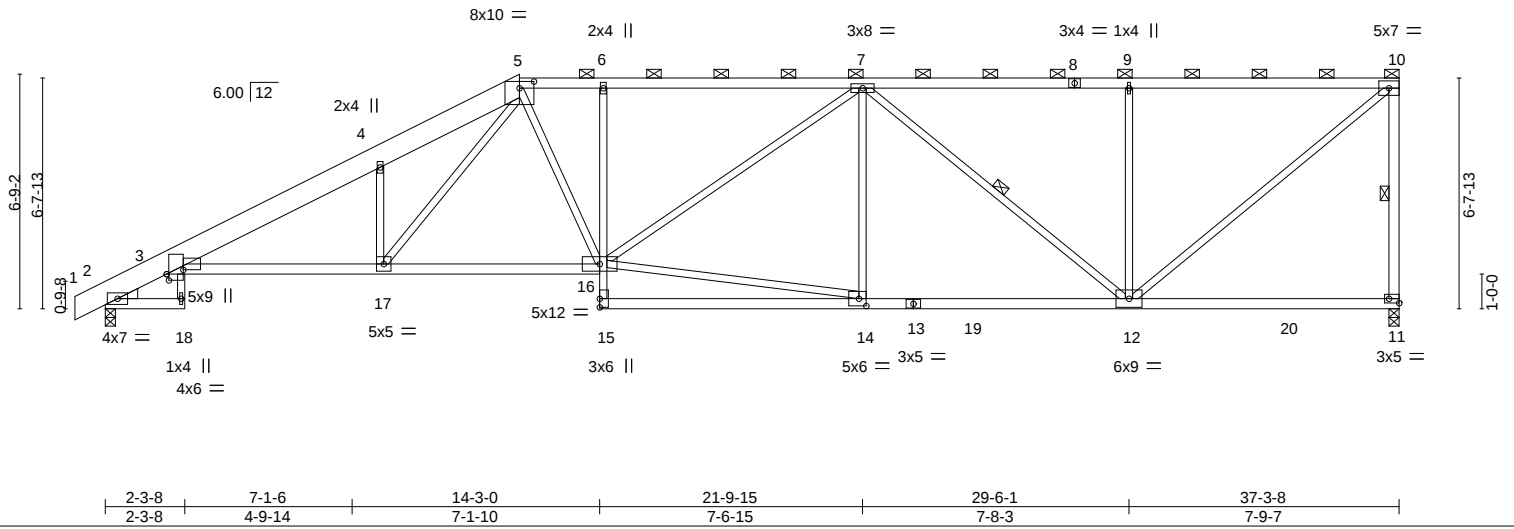
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:29 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-pnjHIOrfM6jtV8TQhXd3BJzdkNn71Ro2D43FFdyEKR8

Job Reference (optional)

-0-10-8 2-3-8 7-11-1 11-11-4 14-3-0 21-9-15 29-6-1 37-3-8
0-10-8 2-3-8 5-7-9 4-0-3 2-3-12 7-6-15 7-8-3 7-9-7

Scale = 1:66.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.29 16-17 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.55 14-15 >808 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.31 11 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.20 16-17 >999 240				
								Weight: 181 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x8 SP DSS *Except* 5-8: 2x4 SPF No.2, 8-10: 2x4 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied or 3-4-2 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-2 max.): 5-10.
BOT CHORD	2x4 SPF No.2 *Except* 3-16: 2x4 SPF 2100F 1.8E, 6-15: 2x3 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-18 2-2-0 oc bracing: 12-14.
WEBS	2x3 SPF No.2 *Except* 10-11: 2x4 SPF No.2	WEBS	1 Row at midpt 10-11, 7-12
WEDGE			
Left: 2x4 SPF No.2			

REACTIONS. (size) 11=0-3-8, 2=0-3-8
Max Horz 2=267(LC 5)
Max Uplift 11=-303(LC 5), 2=-165(LC 8)
Max Grav 11=1785(LC 2), 2=1809(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1073/86, 3-4=-3761/432, 4-5=-4019/556, 5-6=-2877/446, 6-7=-2871/448,
7-9=-1760/308, 9-10=-1760/308, 10-11=-1632/338
BOT CHORD 3-17=-605/3477, 16-17=-497/2586, 6-16=-433/182, 12-14=-485/2553
WEBS 4-17=-995/315, 5-17=-283/1468, 5-16=-192/788, 14-16=-476/2420, 7-16=-89/410,
7-12=-1030/168, 9-12=-585/247, 10-12=-390/2255

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 (it=lb) 11=303, 2=165.
- 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.



November 30, 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	Lot 145 HT	
HT145	D4	Half Hip	1	1		I48989415

Wheeler Lumber, Waverly, KS - 66871,

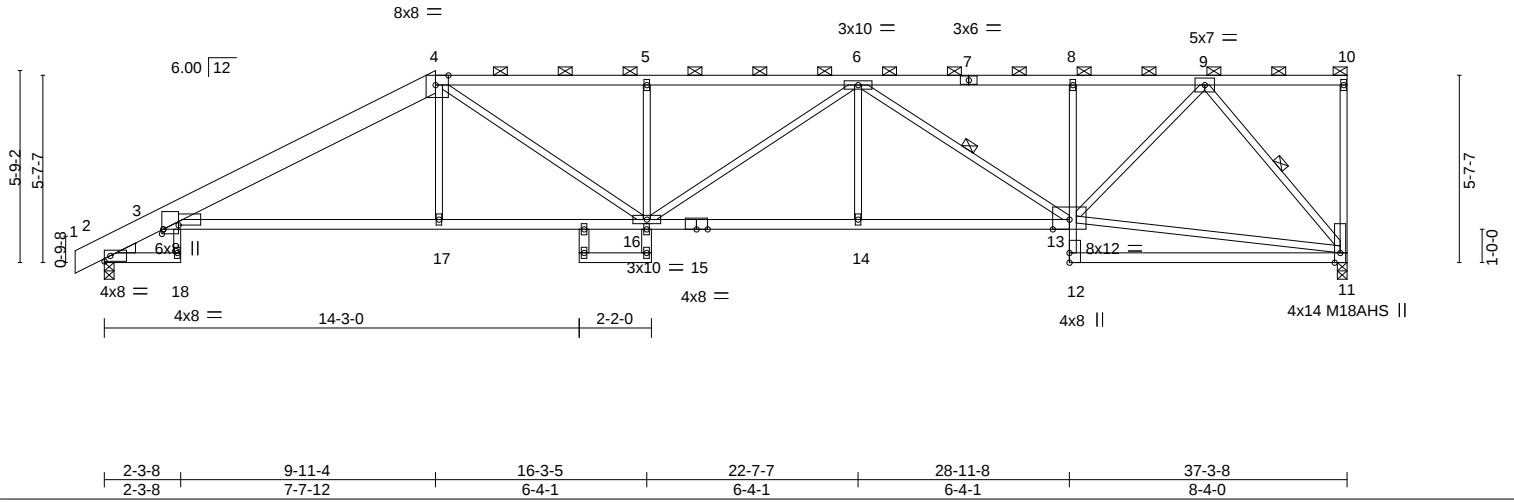
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ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-HzHfWMSH7Qrj7I2cFE8lkWV/m9n7cmvCCScoon3yEKR7

Job Reference (optional)

-Q-10-8 2-3-8	9-11-4	16-3-5	22-7-7	28-11-8	33-0-4	37-3-8
0-10-8 2-3-8	7-7-12	6-4-1	6-4-1	6-4-1	4-0-12	4-3-4

Scale = 1:69.1



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.85	Vert(LL) -0.35	14-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.94	Vert(CT) -0.64	14-16	>693	240	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr YES	WB 0.86	Horz(CT) 0.43	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.28	14-16	>999	240		
							Weight: 170 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
3-15: 2x4 SPF 2100F 1.8E, 8-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
19-21,16-20: 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 6-13, 9-11

REACTIONS.

(size) 11=0-3-8, 2=0-3-8
Max Horz 2=225(LC 5)
Max Uplift 11=-306(LC 5), 2=-162(LC 5)
Max Grav 11=1666(LC 1), 2=1750(LC 1)

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

TOP CHORD 2-3=-990/102, 3-4=-3216/453, 4-5=-3559/610, 5-6=-3558/611, 6-8=-2484/436, 8-9=-2464/434
BOT CHORD 3-17=-549/2875, 16-17=-546/2878, 14-16=-685/3475, 13-14=-685/3475, 8-13=-370/155
WEBS 4-17=0/320, 4-16=-260/822, 5-16=-425/190, 6-14=0/286, 6-13=-1194/207, 11-13=-324/1137, 9-13=-295/1781, 9-11=-2032/439

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) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=306, 2=162.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	D5	Half Hip	1	1		I48989416

Wheeler Lumber, Waverly, KS - 66871,

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ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-l9r1jSvujzakRcooyfXGk2zjBZWVlKLnNYMJVvYKRE6

-Q-10-8 2-3-8	7-11-4	15-0-9	22-0-11	28-11-8	33-0-4	37-3-8
0-10-8 2-3-8	5-7-12	7-1-5	7-0-2	6-10-13	4-0-12	4-3-4

Scale = 1:69.1

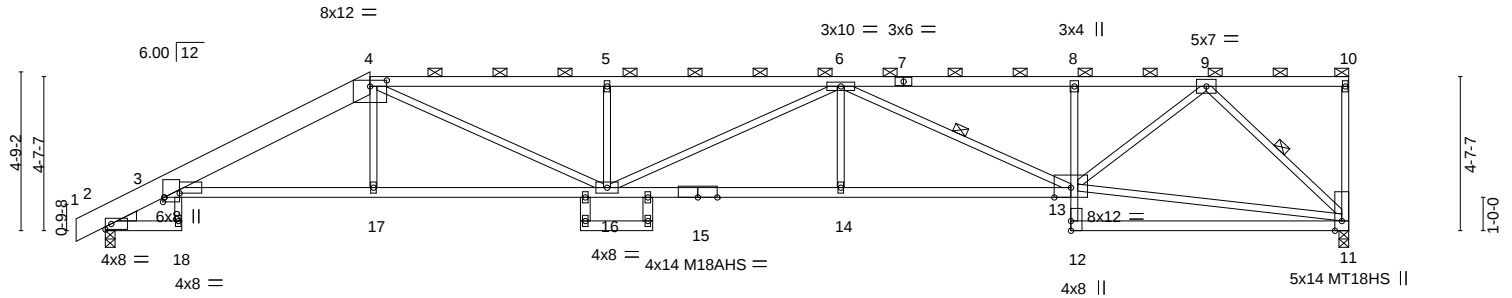


Plate Offsets (X,Y)--	[3:0-5-8,0-1-8], [3:0-1-10,0-0-8], [4:0-6-0,0-2-3]
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LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.73	Vert(LL) -0.43	14-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.57	Vert(CT) -0.80	14-16	>557	240	M18AHS	142/136
BCLL 0.0 *	Rep Stress Incr YES		WB 0.85	Horz(CT) 0.42	11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL) 0.35	14-16	>999	240	Weight: 161 lb	FT = 10%

LUMBER-

TOP CHORD 2x8 SP DSS *Except*
4-7: 2x4 SPF 2100F 1.8E, 7-10: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-15,13-15: 2x4 SPF 2100F 1.8E, 8-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
19-21,20-22: 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3

REACTIONS.

(size) 11=0-3-8, 2=0-3-8
Max Horz 2=183(LC 5)
Max Uplift 11=308(LC 5), 2=191(LC 5)
Max Grav 11=1666(LC 1), 2=1750(LC 3)

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

TOP CHORD 2-3=-990/120, 3-4=-3514/543, 4-5=-4549/808, 5-6=-4548/809, 6-8=-3238/580,
8-9=-3198/575
BOT CHORD 3-17=-614/3206, 16-17=-610/3209, 14-16=-890/4587, 13-14=-890/4587, 8-13=-394/164
WEBS 4-17=0/273, 4-16=-362/1476, 5-16=-481/209, 6-14=0/307, 6-13=-1494/264,
11-13=-373/1427, 9-13=-359/2106, 9-11=-2267/488

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) All plates are MT20 plates unless otherwise indicated.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=308, 2=191.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	D6	Half Hip Girder	1	3		I48989417

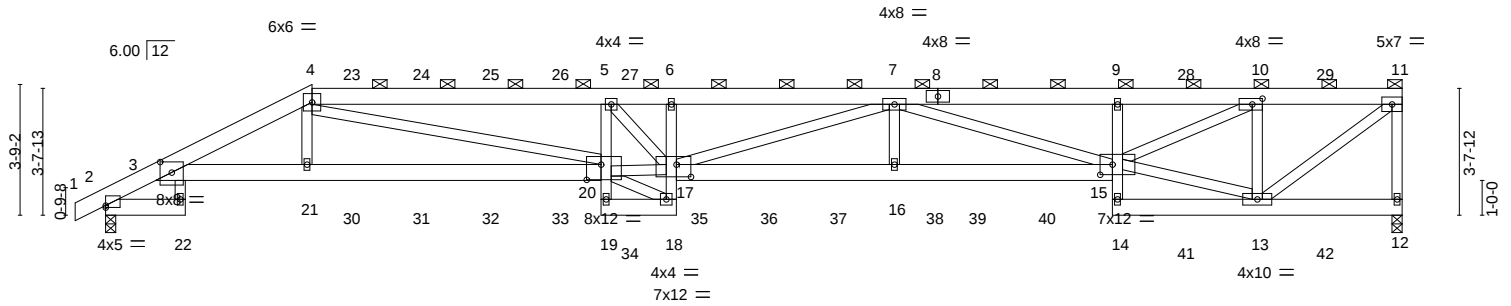
Wheeler Lumber, Waverly, KS - 66871,

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ID:SeH2eHhJU9RSOs?cPHZH9y3WgO-hYyo8OUAPLDI_lmBwNh?L97KJ_GCzKde8h1SOOyEKR4

0-10-8	2-3-8	5-11-4	12-2-0	16-5-0	22-8-4	26-7-8	33-1-8	37-3-8
0-10-8	2-3-8	3-7-12	6-2-12	4-3-0	6-3-4	3-11-4	6-6-0	4-2-0

Scale = 1:66.3



2-3-8	5-11-4	12-2-0	14-3-0	16-5-0	22-8-4	26-7-8	28-11-8	33-1-8	37-3-8
2-3-8	3-7-12	6-2-12	2-1-0	2-2-0	6-3-4	3-11-4	2-4-0	4-2-0	4-2-0

Plate Offsets (X,Y)-- [2:0-0-0,0-0-11], [3:0-4-0,0-3-10], [10:0-3-8,0-2-0], [15:0-4-4,0-3-8], [17:0-5-0,0-4-4], [20:0-5-0,0-5-4]									
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 0.66	Vert(LL)	-0.45 16-17	>977	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.80 16-17	>555	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.56	Horz(CT)	0.28 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.30 16-17	>999	240	Weight: 686 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except* 1-4: 2x6 SP DSS	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.): 4-11.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-22.
WEBS 2x4 SPF No.2 *Except* 17-20: 2x4 SP 2100F 1.8E	

REACTIONS. (size) 12=0-3-8, 2=0-3-8
Max Horz 2=107(LC 5)
Max Uplift 12=-411(LC 5), 2=-307(LC 5)
Max Grav 12=3520(LC 1), 2=3417(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2086/206, 3-4=-9385/955, 4-5=-13959/1638, 5-6=-14384/1687, 6-7=-14472/1699,
7-9=-10099/1249, 9-10=-9983/1238, 10-11=-3879/477, 11-12=-3367/456
BOT CHORD 2-22=-256/21, 3-21=-949/8653, 20-21=-953/8570, 16-17=-1779/14156,
15-16=-1779/14156, 13-14=-37/322
WEBS 3-22=-34/424, 5-20=-1166/306, 9-15=-373/100, 4-21=0/1256, 4-20=-801/5669,
7-17=-7/335, 7-16=-78/813, 7-15=-4297/519, 13-15=-457/3657, 10-15=-900/6896,
10-13=-3759/592, 11-13=-581/4894, 5-17=-59/576, 17-20=-1672/13798

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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.
- 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.
- 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) except (jt=lb) 12=411, 2=307.
- 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 connection does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	D6	Half Hip Girder	1	3	Job Reference (optional)

I48989417

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:34 2021 Page 2
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NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 127 lb down and 65 lb up at 5-11-4, 104 lb down and 65 lb up at 7-0-0, 104 lb down and 65 lb up at 9-0-0, 104 lb down and 65 lb up at 11-0-0, 104 lb down and 65 lb up at 13-0-0, 114 lb down and 75 lb up at 15-0-0, 114 lb down and 75 lb up at 31-0-0, 114 lb down and 75 lb up at 33-0-0, and 114 lb down and 75 lb up at 35-0-0, and 142 lb down and 70 lb up at 37-1-12 on top chord, and 447 lb down and 99 lb up at 5-11-4, 73 lb down at 7-0-0, 73 lb down at 9-0-0, 73 lb down at 11-0-0, 73 lb down at 13-0-0, 70 lb down at 15-0-0, 206 lb down and 55 lb up at 17-0-0, 206 lb down and 55 lb up at 19-0-0, 206 lb down and 55 lb up at 21-0-0, 206 lb down and 55 lb up at 23-0-0, 206 lb down and 55 lb up at 25-0-0, 206 lb down and 55 lb up at 27-0-0, 206 lb down and 55 lb up at 29-1-4, 70 lb down at 31-0-0, 70 lb down at 33-0-0, and 70 lb down at 35-0-0, and 86 lb down at 37-1-12 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: 1-4=-70, 4-11=-70, 2-22=-20, 3-20=-20, 18-19=-20, 15-17=-20, 12-14=-20
Concentrated Loads (lb)
Vert: 4=-103(B) 11=-142(B) 12=-58(B) 21=-447(B) 15=-206(B) 10=-114(B) 13=-50(B) 23=-103(B) 24=-103(B) 25=-103(B) 26=-103(B) 27=-114(B) 28=-114(B) 29=-114(B) 30=-66(B) 31=-66(B) 32=-66(B) 33=-66(B) 34=-50(B) 35=-206(B) 36=-206(B) 37=-206(B) 38=-206(B) 39=-206(B) 40=-206(B) 41=-50(B) 42=-50(B)

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



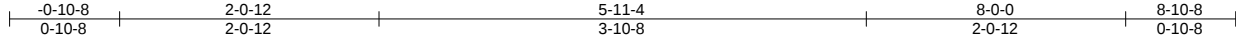
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	E1	Hip Girder	1	1		I48989418

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:34 2021 Page 1

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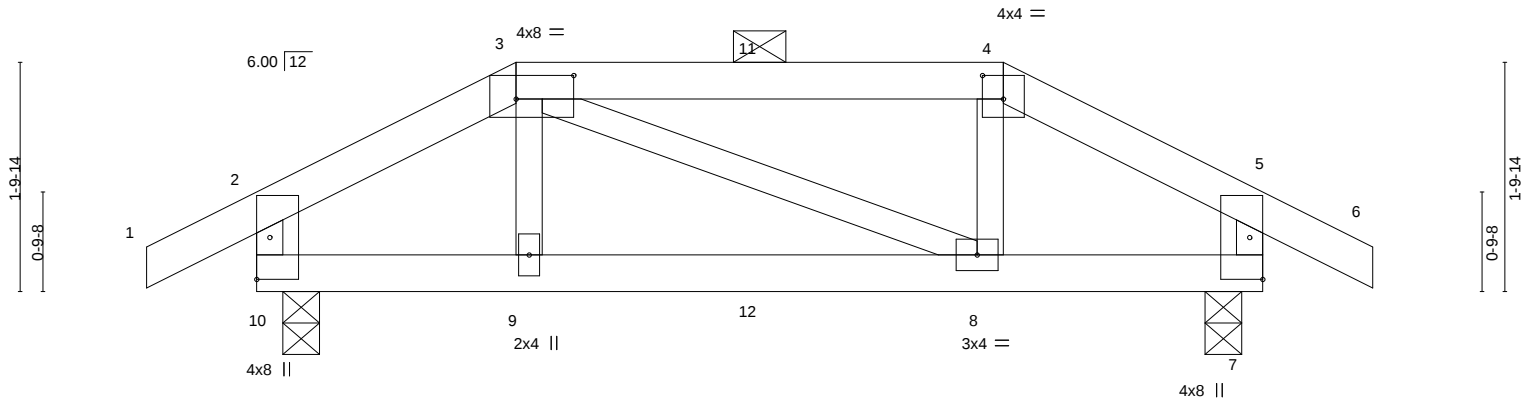


Plate Offsets (X,Y)--	[3:0-5-8,0-2-4], [4:0-2-0,0-2-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.36	Vert(LL) -0.02 8-9 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.25	Vert(CT) -0.04 8-9 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.03	Horz(CT) 0.00 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.02 8-9 >999 240	Weight: 27 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) 10=0-3-8, 7=0-3-8
Max Horz 10=39(LC 7)
Max Uplift 10=-115(LC 8), 7=-115(LC 9)
Max Grav 10=417(LC 1), 7=417(LC 1)

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

TOP CHORD 2-3=-412/130, 3-4=-320/116, 4-5=-412/129, 2-10=-350/111, 5-7=-350/111
BOT CHORD 9-10=-104/322, 8-9=-101/323, 7-8=-95/320

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 100 lb uplift at joint(s) except (jt=lb) 10=115, 7=115.
- 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) 93 lb down and 112 lb up at 2-0-12, and 56 lb down and 37 lb up at 4-0-0, and 93 lb down and 112 lb up at 5-11-4 on top chord, and 13 lb down and 4 lb up at 2-0-12, and 9 lb down and 0 lb up at 4-0-0, and 13 lb down and 4 lb up at 5-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20
Concentrated Loads (lb)
Vert: 9=2(B) 8=2(B) 12=0(B)



November 30, 2021

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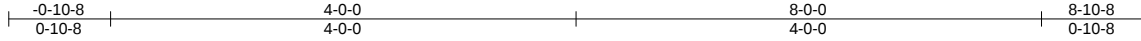
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	E2	Common	1	1		I48989419

Wheeler Lumber, Waverly, KS - 66871,

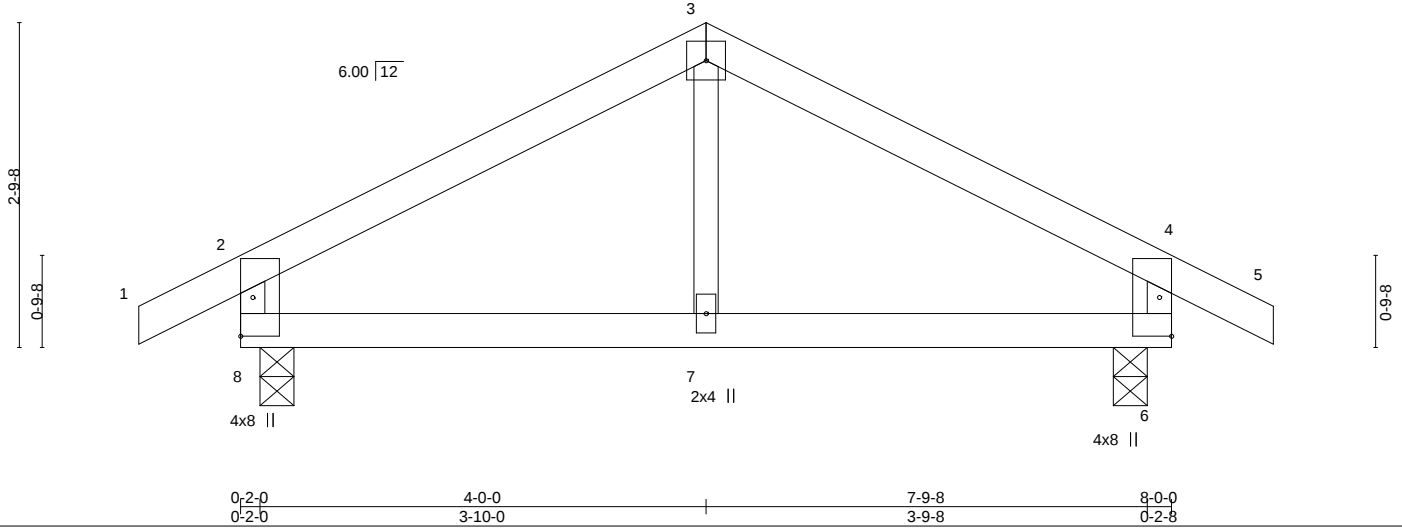
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:35 2021 Page 1

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4x4 =

Scale = 1:19.8



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.34	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.15	Vert(LL) -0.01 7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Vert(CT) -0.02 7 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Horz(CT) 0.00 6 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.00 7 >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

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 6=0-3-8
Max Horz 8=-52(LC 6)
Max Uplift 8=-65(LC 8), 6=-65(LC 9)
Max Grav 8=419(LC 1), 6=419(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-375/59, 3-4=-375/58, 2-8=-365/91, 4-6=-365/91
BOT CHORD 7-8=-3/271, 6-7=-3/271

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
- 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) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	I48989420
HT145	E3	Common	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:36 2021 Page 1

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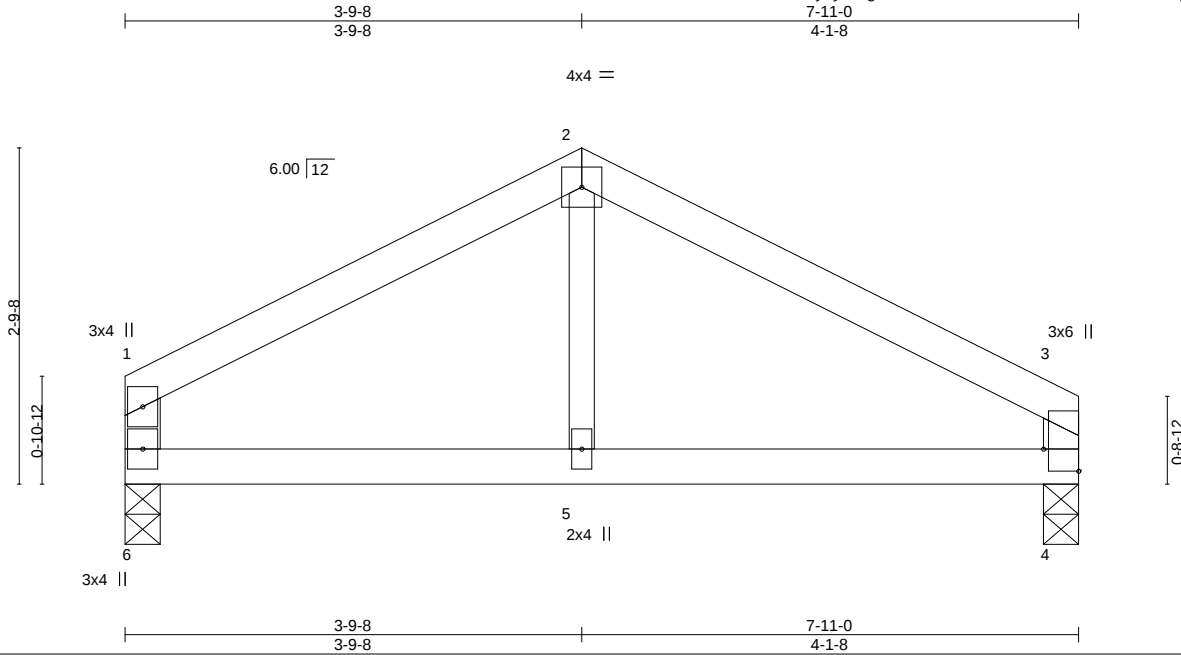


Plate Offsets (X,Y)-- [3:Edge,0-3-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.20	Vert(LL)	-0.01	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	4-5	>999	240		
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-R	Wind(LL)	0.01	4-5	>999	240	Weight: 22 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=-49(LC 6)
 Max Uplift 6=-40(LC 8), 4=-42(LC 9)
 Max Grav 6=343(LC 1), 4=343(LC 1)

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

TOP CHORD 1-2=-366/60, 2-3=-369/55, 1-6=-280/63, 3-4=-286/68
 BOT CHORD 5-6=-8/269, 4-5=-8/269

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) 6, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 30, 2021

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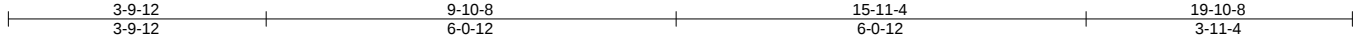


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

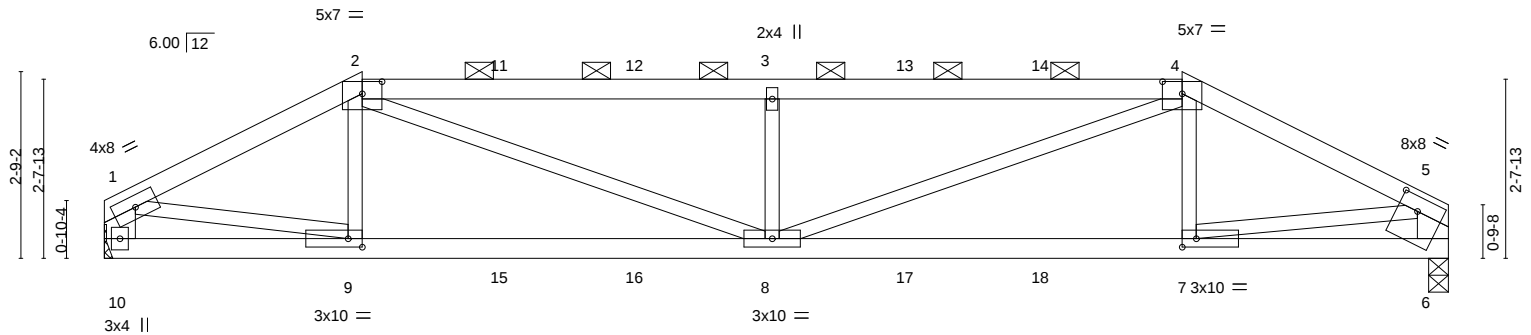
Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	G1	Hip Girder	1	1		I48989421

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:37 2021 Page 1
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Scale = 1:34.1



	3-9-12	9-10-8	15-11-4	19-10-8
	3-9-12	6-0-12	6-0-12	3-11-4
Plate Offsets (X,Y)--	[2:0-3-8,0-2-3], [4:0-3-8,0-2-3], [5:0-3-8,0-2-8], [7:0-2-8,0-1-8], [9:0-2-8,0-1-8]			

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.52	Vert(LL)	-0.12	8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.23	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.56	Horz(CT)	0.04	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11	8	>999	240	Weight: 69 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-4: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-10,5-6: 2x6 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 (4-0-11 max.): 2-4.
BOT CHORD Rigid ceiling directly applied or 8-10-5 oc bracing.

REACTIONS.

(size) 10=Mechanical, 6=0-3-8
Max Horz 10=-48(LC 27)
Max Uplift 10=-282(LC 5), 6=-278(LC 4)
Max Grav 10=1319(LC 1), 6=1313(LC 3)

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

TOP CHORD 1-2=-2026/475, 2-3=-2921/739, 3-4=-2921/739, 4-5=-2078/486, 1-10=-1288/289,
5-6=-1279/286
BOT CHORD 8-9=-436/1774, 7-8=-415/1816
WEBS 2-8=-344/1272, 3-8=-693/354, 4-8=-336/1231, 1-9=-388/1638, 5-7=-391/1637

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) except (jt=lb) 10=282, 6=278.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 78 lb up at 3-9-12, 87 lb down and 78 lb up at 5-10-8, 87 lb down and 78 lb up at 7-10-8, 87 lb down and 78 lb up at 9-10-8, 87 lb down and 78 lb up at 11-10-8, and 87 lb down and 78 lb up at 13-10-8, and 79 lb down and 78 lb up at 15-11-4 on top chord, and 218 lb down and 77 lb up at 3-9-12, 32 lb down at 5-10-8, 32 lb down at 7-10-8, 32 lb down at 9-10-8, 32 lb down at 11-10-8, and 32 lb down at 13-10-8, and 218 lb down and 77 lb up at 15-10-8 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).



November 30,2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	G1	Hip Girder	1	1	I48989421

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:37 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, 6-10=-20

Concentrated Loads (lb)

Vert: 2=-48(B) 4=-48(B) 9=-218(B) 8=-23(B) 3=-48(B) 7=-218(B) 11=-48(B) 12=-48(B) 13=-48(B) 14=-48(B) 15=-23(B) 16=-23(B) 17=-23(B) 18=-23(B)

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	G2	Roof Special Girder	1	2	i48989422

Wheeler Lumber,		Waverly, KS - 66871,		8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:39 2021 Page 1					
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0-10-8	3-11-4	8-9-8	10-3-8	11-11-4	15-11-4	20-0-0	24-0-12	30-0-0	
0-10-8	3-11-4	4-10-4	1-6-0	1-7-12	4-0-0	4-0-12	4-0-12	5-11-4	

Scale = 1:55.4

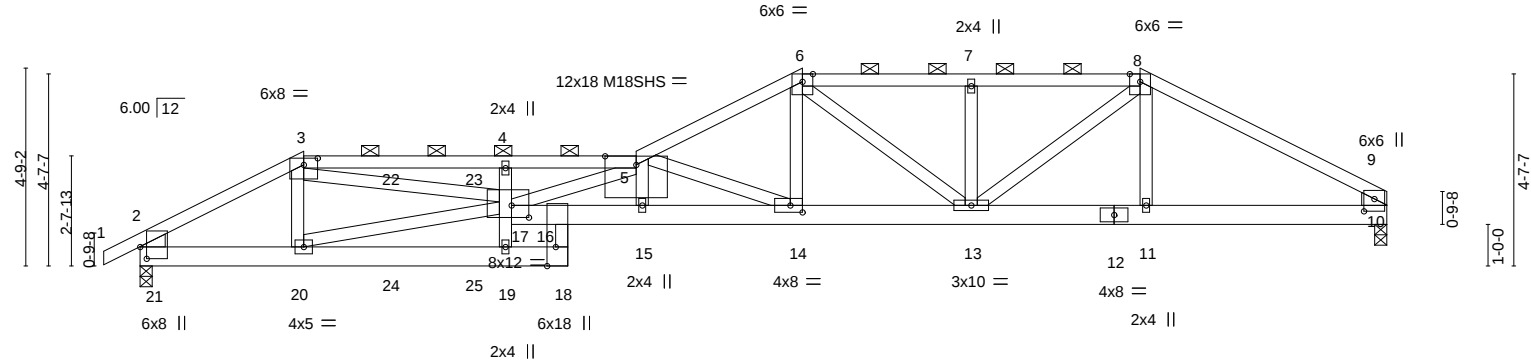


Plate Offsets (X,Y)--	[3:0-4-0,0-1-15], [5:0-9-0,0-2-8], [9:0-3-9,0-3-0], [14:0-3-8,0-2-0], [17:0-5-0,0-3-8], [18:0-5-8,Edge], [21:0-3-6,0-1-14]
-----------------------	--

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) -0.44 15-16 >808 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(CT) -0.76 15-16 >462 240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.89	Horz(CT) 0.14 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.32 15-16 >999 240	Weight: 318 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 3-5: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-6-11 max.): 3-5, 6-8.
BOT CHORD 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 2-21,9-10: 2x8 SP 2400F 2.0E	

REACTIONS.	(size) 21=0-3-8, 10=0-3-8
	Max Horz 21=93(LC 5)
	Max Uplift 21=-453(LC 8), 10=-185(LC 4)
	Max Grav 21=2323(LC 1), 10=1674(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3625/689, 3-4=-10218/1829, 4-5=-10700/1905, 5-6=-5123/744, 6-7=-3724/545, 7-8=-3724/545, 8-9=-2667/348, 2-21=-1837/388, 9-10=-1364/189
BOT CHORD	20-21=-649/3180, 19-20=-98/612, 16-17=-1856/11270, 15-16=-1856/11270, 14-15=-1857/11295, 13-14=-606/4441, 11-13=-256/2313, 10-11=-251/2301
WEBS	16-18=-270/1351, 3-20=-559/182, 17-20=-574/2653, 3-17=-1213/7225, 5-17=-690/288, 5-14=-7124/1303, 6-14=-405/2596, 6-13=-967/253, 7-13=-420/149, 8-13=-302/1876, 8-11=-257/107, 17-19=-369/164, 4-17=-409/210, 5-15=-81/276

- 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, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 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.
 - 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) 21=453, 10=185.
 - 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

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



November 30, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	G2	Roof Special Girder	1	2	148989422

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:39 2021 Page 2
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-WiK3PRZx?B_SigELGdoPbQNMiPFHNz4XXdUnb2yEKR_

NOTES-

- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 98 lb down and 78 lb up at 3-11-4, and 98 lb down and 78 lb up at 6-0-0, and 98 lb down and 78 lb up at 8-0-0 on top chord, and 218 lb down and 77 lb up at 3-11-4, 32 lb down at 6-0-0, and 32 lb down at 8-0-0, and 862 lb down and 172 lb up at 10-1-12 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, 3-5=-70, 5-6=-70, 6-8=-70, 8-9=-70, 18-21=-20, 10-16=-20

Concentrated Loads (lb)

Vert: 3=-48(B) 18=-862(B) 20=-218(B) 22=-48(B) 23=-48(B) 24=-23(B) 25=-23(B)

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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	Lot 145 HT	
HT145	G3	Roof Special	1	1		I48989423

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:40 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-uuRcnZZmU6JJqpXqLJe8dwWPpcb6SOglHDK6UyEKQz

0-10-8	5-11-4	10-3-8	13-11-4	17-11-4	22-0-12	30-0-0
0-10-8	5-11-4	4-4-4	3-7-12	4-0-0	4-1-8	7-11-4

Scale = 1:55.2

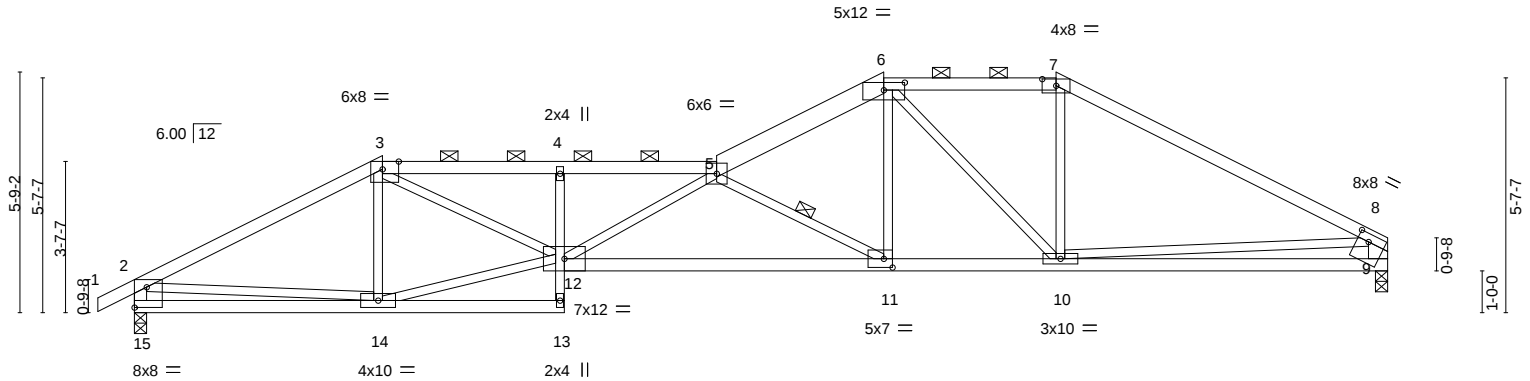


Plate Offsets (X,Y)--	[3:0-4-10,Edge], [6:0-6-0,0-2-3], [7:0-4-0,0-1-15], [8:0-3-4,0-2-4], [11:0-2-8,0-2-8], [15:Edge,0-5-13]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.67	Vert(LL) -0.27	11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.58	Vert(CT) -0.56	11-12	>634	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.75	Horz(CT) 0.12	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.20	11-12	>999	240	Weight: 118 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 3-5-10 oc purlins, except end verticals, and 2-0-0 oc purlins (2-7-6 max.): 3-5, 6-7.
5-6: 2x6 SPF No.2, 7-8: 2x4 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x4 SPF No.2 *Except*	WEBS 1 Row at midpt 5-11
4-13: 2x3 SPF No.2, 9-12: 2x4 SPF 2100F 1.8E	
WEBS 2x3 SPF No.2 *Except*	
2-15: 2x4 SPF No.2, 8-9: 2x6 SPF No.2	

REACTIONS. (size) 15=0-3-8, 9=0-3-8
Max Horz 15=107(LC 5)
Max Uplift 15=-222(LC 8), 9=-99(LC 9)
Max Grav 15=1406(LC 1), 9=1332(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2166/315, 3-4=-3783/577, 4-5=-3824/574, 5-6=-2479/295, 6-7=-1767/211,
7-8=-2106/209, 2-15=-1342/253, 8-9=-1250/145
BOT CHORD 14-15=-259/533, 4-12=-366/140, 11-12=-581/4133, 10-11=-201/2208, 9-10=-149/617
WEBS 3-14=-441/139, 12-14=-274/1797, 3-12=-288/2197, 5-12=-365/80, 5-11=-2252/441,
6-11=-144/1253, 6-10=-741/128, 7-10=-16/544, 2-14=-103/1326, 8-10=-73/1173

- 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 100 lb uplift at joint(s) 9 except (jt=lb) 15=222.
 - 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.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	G4	Roof Special	1	1		I48989424

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:41 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-S5Rpq7aBXoEAX_NjO2rtgrSetDwzruAp_xzufwyEKQy

Job Reference (optional)

0-10-8	8-0-0	10-3-8	16-0-0	20-0-0	24-10-12	30-0-0
0-10-8	8-0-0	2-3-8	5-8-8	4-0-0	4-10-12	5-1-4

Scale = 1:54.4

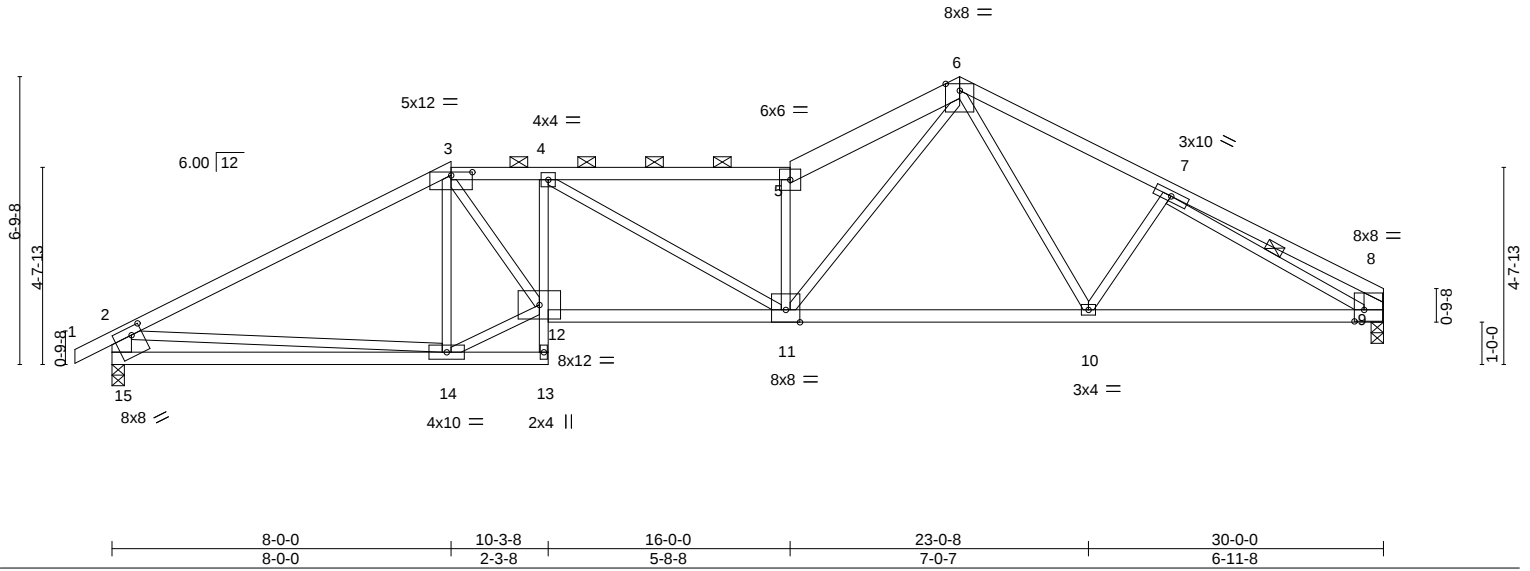


Plate Offsets (X,Y)--		[3:0-6-0,0-0-15], [8:0-2-12,0-3-4], [15:0-3-0,0-2-4]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 10.0	Lumber DOL	1.15
BCLL 0.0 *	Rep Stress Incr	YES
BCDL 10.0	Code	IRC2018/TPI2014
	CSI.	
	TC	0.88
	BC	0.76
	WB	0.78
	Matrix-S	
	DEFL.	
	Vert(LL)	-0.22 11-12 >999 360
	Vert(CT)	-0.41 11-12 >868 240
	Horz(CT)	0.12 9 n/a n/a
	Wind(LL)	0.17 11-12 >999 240
	PLATES	
	MT20	197/144
	GRIP	
		197/144
	Weight: 120 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-3-5 max.): 3-5.
BOT CHORD 2x4 SPF No.2 *Except* 4-13: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-15,8-9: 2x6 SPF No.2	WEBS 1 Row at midpt 7-9

REACTIONS. (size) 15=0-3-8, 9=0-3-8
Max Horz 15=125(LC 8)
Max Uplift 15=-233(LC 8), 9=-121(LC 9)
Max Grav 15=1408(LC 1), 9=1328(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2104/323, 3-4=-2791/502, 4-5=-2923/445, 5-6=-3412/575, 6-7=-2023/278,
7-8=-461/90, 2-15=-1333/278, 8-9=-340/94
BOT CHORD 14-15=-404/829, 4-12=-441/141, 11-12=-470/2820, 10-11=-164/1604, 9-10=-173/1817
WEBS 3-14=-846/225, 12-14=-312/1951, 3-12=-278/1791, 5-11=-1846/398, 6-11=-421/2283,
6-10=-69/358, 2-14=-51/937, 7-9=-1736/201

- 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 100 lb uplift at joint(s) except (jt=lb) 15=233, 9=121.
 - 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.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	G6	Roof Special	1	1		I48989426

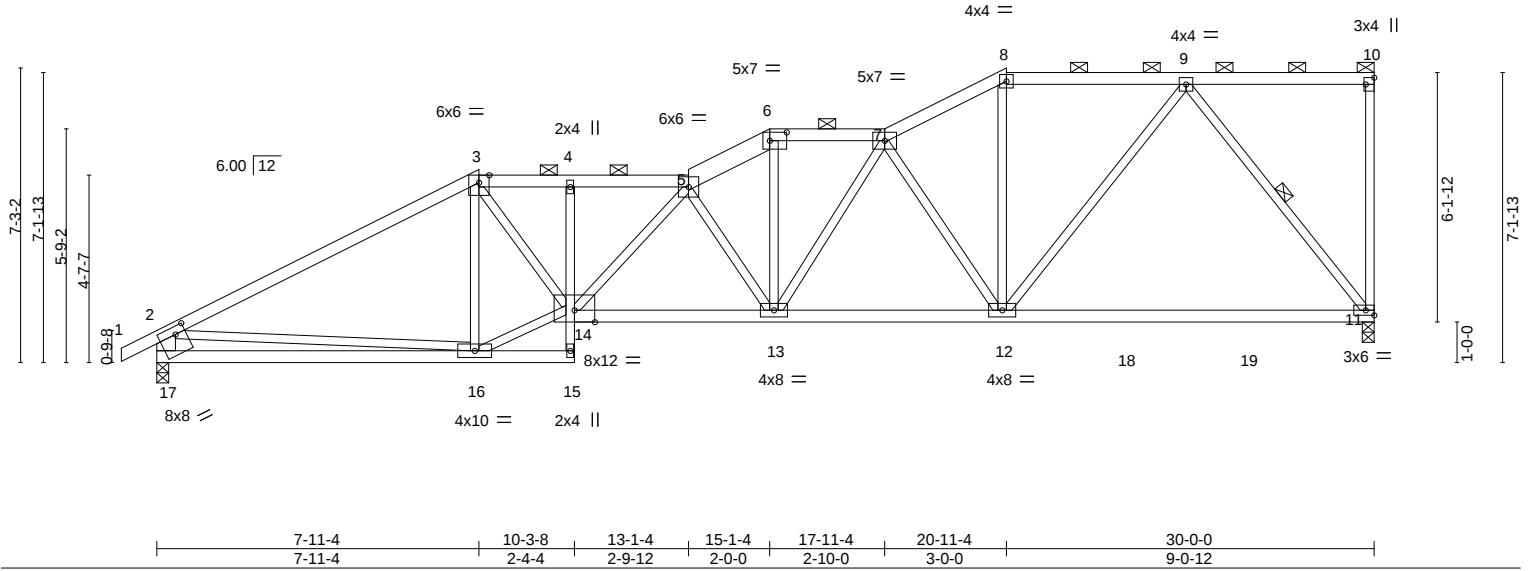
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:43 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-OTZaEocR3PUtAIX6VtILIGY_e0fwJnY6RFS_jpyEKQw

0-10-8	7-11-4	10-3-8	13-1-4	15-1-4	17-11-4	20-11-4	25-4-6	30-0-0
0-10-8	7-11-4	2-4-4	2-9-12	2-0-0	2-10-0	3-0-0	4-5-2	4-7-10

Scale = 1:56.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	-0.28 11-12 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.49 11-12 >732 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.09 11 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12 13-14 >999 240				
								Weight: 130 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-6 max.): 3-5, 6-7, 8-10.
BOT CHORD	2x4 SPF No.2 *Except* 4-15: 2x3 SPF No.2, 11-14: 2x4 SPF 2100F 1.8E	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-17: 2x6 SPF No.2	WEBS	1 Row at midpt 9-11

REACTIONS. (size) 11=0-3-8, 17=0-3-8
Max Horz 17=276(LC 5)
Max Uplift 11=-161(LC 5), 17=-234(LC 8)
Max Grav 11=1409(LC 2), 17=1444(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2173/326, 3-4=-2726/473, 4-5=-2743/475, 5-6=-2633/428, 6-7=-2341/399,
7-8=-1747/260, 8-9=-1544/256, 2-17=-1338/279
BOT CHORD 16-17=-421/814, 13-14=-488/2980, 12-13=-302/2224, 11-12=-170/899
WEBS 3-16=-683/208, 14-16=-326/1974, 3-14=-226/1559, 5-14=-367/53, 5-13=-1248/281,
6-13=-120/1014, 7-12=-1234/298, 8-12=-44/554, 9-12=-131/1051, 9-11=-1446/203,
2-16=-71/1069

- 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) 11=161, 17=234.
 - 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.



November 30, 2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	G7	Roof Special	1	1		I48989427

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:45 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-LshKfUdhb1kbQbhUduvpqhdMgqK7nf4PvZx5ohyEKQu

0-10-8	5-11-4	10-3-8	11-1-4	17-1-4	19-11-4	22-11-4	30-0-0
0-10-8	5-11-4	4-4-4	0-9-12	6-0-0	2-10-0	3-0-0	7-0-12

Scale = 1:58.4

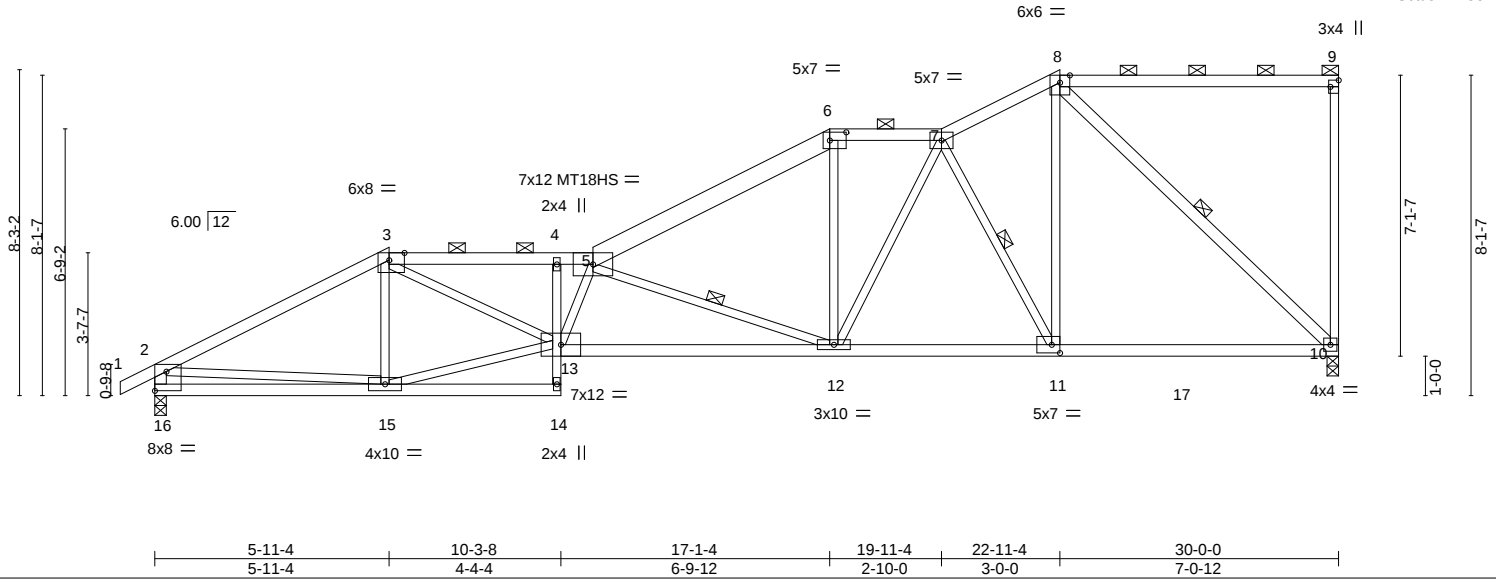


Plate Offsets (X,Y)-- [3:0-4-10,Edge], [6:0-5-0,0-2-8], [9:Edge,0-2-8], [11:0-2-8,0-2-8], [16:Edge,0-5-13]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.30	12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.54	12-13	>660	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.12	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.20	12-13	>999	240		
									Weight: 136 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-14: 2x3 SPF No.2, 10-13: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
8-10,2-16: 2x4 SPF No.2

REACTIONS.

(size) 10=0-3-8, 16=0-3-8
Max Horz 16=316(LC 5)
Max Uplift 10=-163(LC 8), 16=-237(LC 8)
Max Grav 10=1413(LC 2), 16=1444(LC 2)

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

TOP CHORD 2-3=-2244/344, 3-4=-3933/665, 4-5=-3972/662, 5-6=-2190/349, 6-7=-1915/361,
7-8=-1283/236, 2-16=-1347/268
BOT CHORD 15-16=-332/552, 4-13=-321/126, 12-13=-744/4056, 11-12=-235/1697, 10-11=-150/1133
WEBS 3-15=-441/163, 13-15=-368/1878, 3-13=-358/2272, 5-13=-271/92, 5-12=-2308/495,
6-12=-5/633, 7-12=-106/483, 7-11=-1163/287, 8-11=-179/1306, 8-10=-1576/233,
2-15=-74/1423

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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 10=163, 16=237.
- 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.



November 30,2021

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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	Lot 145 HT	
HT145	G8	Roof Special	1	1		I48989428

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:46 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-p2FitqeKLSs1lGhBbQ2NuAWVEc8WChZ8DheK8yEKQt

-0-10-8	3-11-4	9-1-4	10-3-8	13-10-7	19-1-4	21-11-4	24-11-4	30-0-0
0-10-8	3-11-4	5-2-0	1-2-4	3-6-15	5-2-13	2-10-0	3-0-0	5-0-12

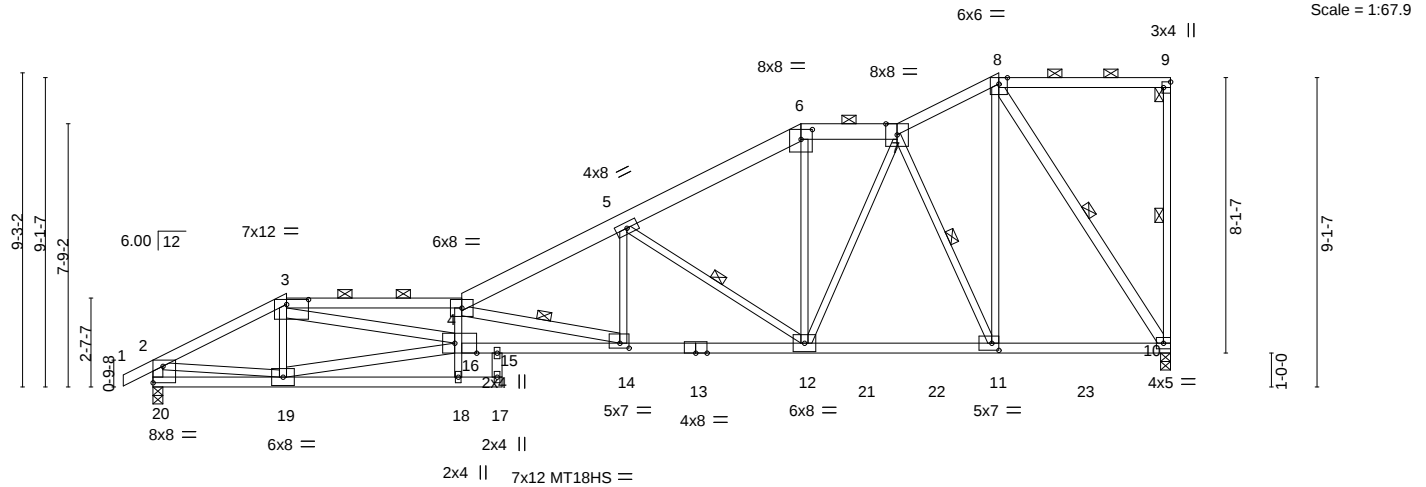


Plate Offsets (X,Y)-- [3:0-7-12,0-1-12], [6:0-4-0,0-3-8], [9:Edge,0-2-8], [11:0-2-8,0-2-8], [14:0-3-4,0-1-12], [16:0-7-12,Edge], [20:Edge,0-5-13]

LOADING (psf)	SPACING-	CSL	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.83	Vert(LL) -0.45	17	>789	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.82	Vert(CT) -0.78	17	>455	240		MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr YES	WB 0.64	Horz(CT) 0.18	10	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.33	15	>999	240		Weight: 153 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 3-4: 2x4 SPF 2100F 1.8E, 4-6,6-7: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-0 oc purlins, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-4, 6-7, 8-9.
BOT CHORD 2x4 SPF No.2 *Except* 13-16: 2x4 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 7-3-14 oc bracing: 14-15 8-2-5 oc bracing: 12-14.
WEBS 2x3 SPF No.2 *Except* 15-17,8-10,2-20,4-14: 2x4 SPF No.2, 3-16,16-19: 2x4 SPF 2100F 1.8E	WEBS 1 Row at midpt 9-10, 5-12, 7-11, 8-10, 4-14

REACTIONS. (size) 10=0-3-8, 20=0-3-8
Max Horz 20=358(LC 5)
Max Uplift 10=-197(LC 8), 20=-239(LC 8)
Max Grav 10=1436(LC 2), 20=1459(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2310/352, 3-4=-6342/1044, 4-5=-3213/520, 5-6=-1797/318, 6-7=-1550/322,
7-8=-900/204, 2-20=-1406/257
BOT CHORD 19-20=-332/311, 15-16=-1172/6442, 14-15=-1172/6442, 12-14=-521/2843,
11-12=-174/1285, 10-11=-124/776
WEBS 3-19=-476/167, 5-12=-1591/361, 6-12=-17/498, 7-12=-131/673, 7-11=-1195/305,
8-11=-224/1344, 8-10=-1450/232, 2-19=-217/1802, 4-16=-657/166, 3-16=-713/4416,
16-19=-457/1964, 5-14=-130/1227, 4-14=-3740/677

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) 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
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are MT20 plates unless otherwise indicated.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=197, 20=239.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	G9	Roof Special Girder	1	1		I48989429

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:48 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-IRMTIWgaty6AH3Q3I0TWSJFtC1Le_3urbXAIO0yEKQr

0-10-8 1-11-4	7-1-4	10-3-8	16-8-9	21-1-4	23-11-4	26-11-4	30-0-0
0-10-8 1-11-4	5-2-0	3-2-4	6-5-1	4-4-11	2-10-0	3-0-0	3-0-12

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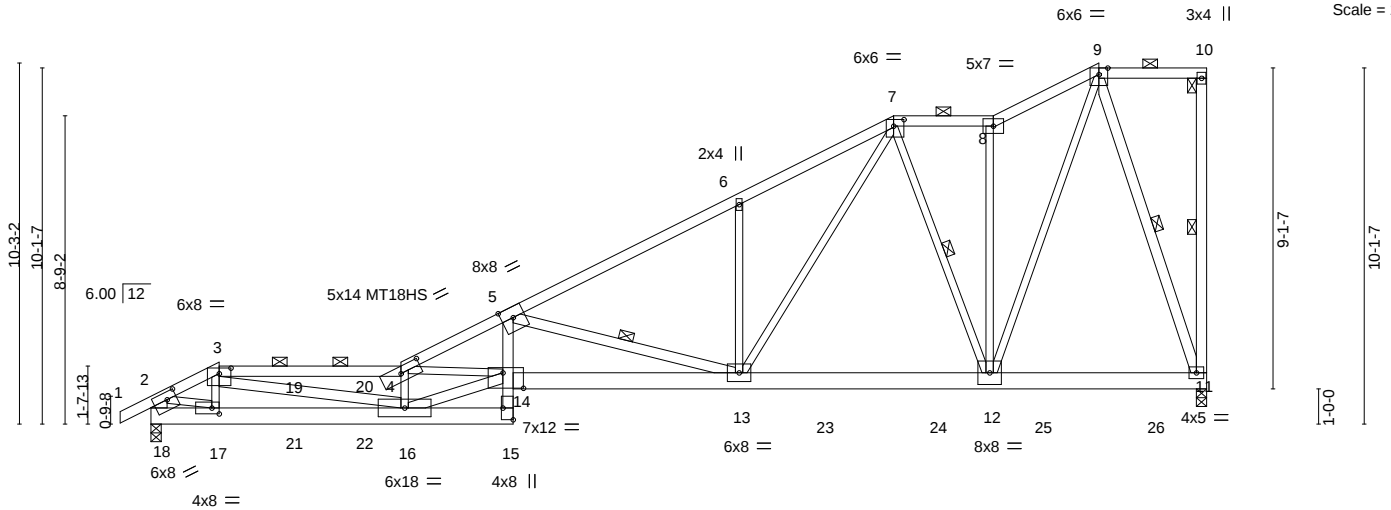


Plate Offsets (X,Y)-- [3:0-4-0,0-1-15], [4:0-7-0,0-2-5], [7:0-3-8,0-2-4], [14:0-7-0,0-5-4], [15:Edge,0-3-8], [17:0-2-8,0-2-0], [18:0-3-4,0-2-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.75	Vert(LL) -0.43	14	>824	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.63	Vert(CT) -0.75	13-14	>474	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.79	Horz(CT) 0.10	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.33	15	>999	240	Weight: 183 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x4 SPF 2100F 1.8E
BOT CHORD 2x6 SP 2400F 2.0E *Except*
5-15: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
10-11,3-16,5-13,9-11: 2x4 SPF No.2, 14-16: 2x4 SPF 2100F 1.8E
2-18: 2x6 SPF No.2

REACTIONS.

(size) 11=0-3-8, 18=0-3-8
Max Horz 18=397(LC 5)
Max Uplift 11=-235(LC 8), 18=-258(LC 8)
Max Grav 11=1445(LC 2), 18=1453(LC 2)

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

TOP CHORD 2-3=-2249/345, 3-4=-5159/779, 4-5=-5613/943, 5-6=-2393/384, 6-7=-2382/513,
7-8=-956/219, 8-9=-1087/286, 2-18=-1535/257
BOT CHORD 17-18=-359/436, 16-17=-515/2054, 15-16=-142/640, 14-15=-40/337, 5-14=-306/2120,
13-14=-1033/5142, 12-13=-172/1186, 11-12=-116/433
WEBS 3-16=-448/3193, 4-16=-2720/532, 14-16=-821/4607, 4-14=-280/187, 5-13=-3199/692,
6-13=-428/237, 7-13=-380/1720, 7-12=-692/204, 8-12=-595/201, 9-12=-342/1618,
9-11=-1332/253, 2-17=-274/1749

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, 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) 11=235, 18=258.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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) 109 lb down and 102 lb up at 1-11-4, and 55 lb down and 35 lb up at 4-0-0, and 55 lb down and 35 lb up at 6-0-0 on top chord, and 11 lb down and 4 lb up at 1-11-4, and 8 lb down and 0 lb up at 4-0-0, and 8 lb down and 0 lb up at 6-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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



November 30, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	G9	Roof Special Girder	1	1		I48989429
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:48 2021 Page 2
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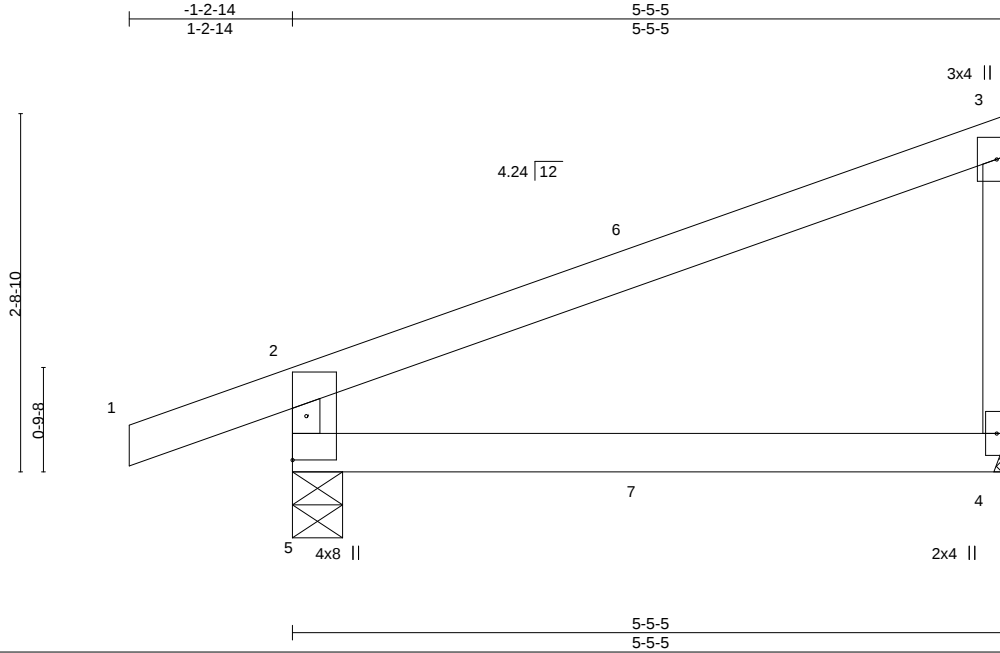
NOTES-
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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, 4-7=-70, 7-8=-70, 8-9=-70, 9-10=-70, 15-18=-20, 11-14=-20
Concentrated Loads (lb)
Vert: 17=2(F) 21=0(F) 22=0(F)

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J4	Diagonal Hip Girder	3	1		I48989430

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:01 2021 Page 1
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-txfN0yqkpxlKL3vZZFBZU3HAFHtdX7Nma2pxMmyEKQe



LOADING (psf)	SPACING-	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)	-0.06	4-5	>969	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: 16 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 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=114(LC 5)
Max Uplift 5=98(LC 4), 4=51(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=299/136

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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 37 lb up at 2-8-7, and 69 lb down and 37 lb up at 2-8-7 on top chord, and 3 lb down and 1 lb up at 2-8-7, and 3 lb down and 1 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)



November 30, 2021

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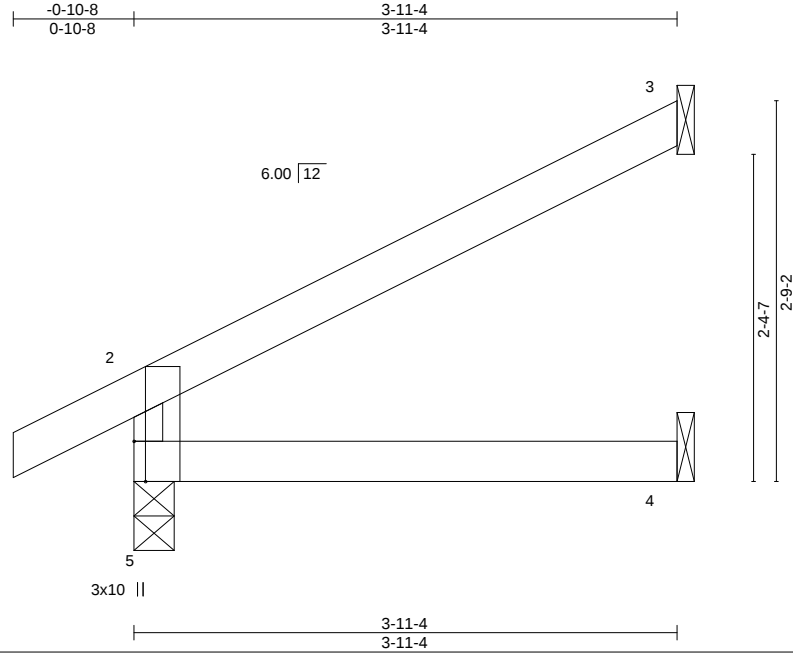


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J5	Jack-Open	10	1		I48989431

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:01 2021 Page 1
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Scale = 1:16.7

Plate Offsets (X,Y)--		[5:0-3-8,Edge]									
LOADING	(psf)	SPACING-		CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES
TCLL	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.01	4-5	>999	360	MT20
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)	-0.01	3	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb
											FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 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=87(LC 8)
Max Uplift 5=-26(LC 8), 3=-69(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.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J6	Jack-Open	8	1		I48989432

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:02 2021 Page 1

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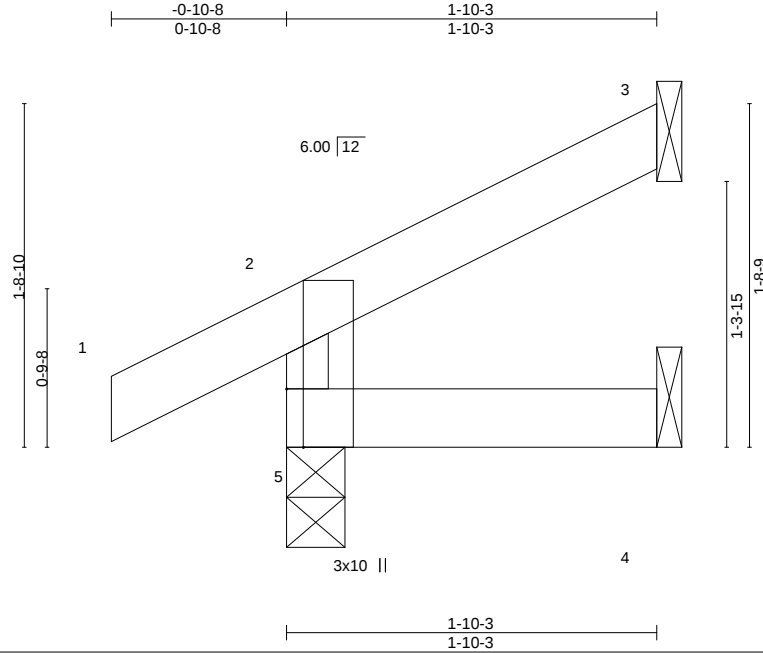


Plate Offsets (X,Y)-- [5:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.07	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 1-10-3 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=45(LC 8)
Max Uplift 5=-22(LC 8), 3=-32(LC 8)
Max Grav 5=166(LC 1), 3=43(LC 1), 4=32(LC 3)

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

NOTES-

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



November 30, 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	Lot 145 HT
HT145	J7	Jack-Closed Girder	1	1	148989433

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:03 2021 Page 1

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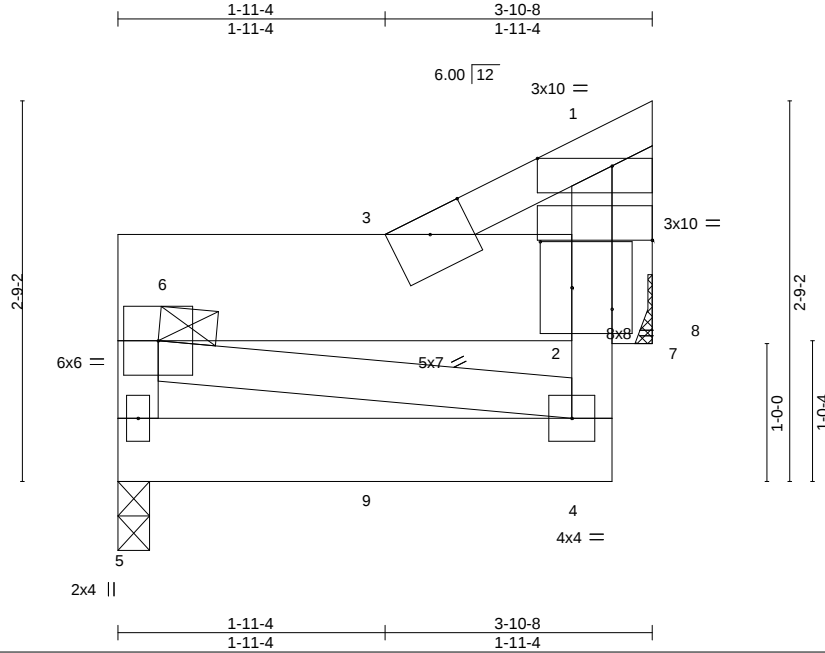


Plate Offsets (X,Y)-- [1:0-6-8,Edge], [2:0-2-12,0-4-0], [7:0-3-8,0-6-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.01	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.01	3	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.12	Horz(CT)	0.00	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.01	3	>999	240	
								Weight: 30 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x10 SP DSS *Except*
 4-5: 2x6 SPF No.2
 WEBS 2x4 SPF No.2
 OTHERS 2x4 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. Except: 6-0-0 oc bracing: 3-6

REACTIONS.

(size) 5=0-2-12, 8=Mechanical
 Max Horz 5=85(LC 5)
 Max Uplift 5=-119(LC 4), 8=-152(LC 5)
 Max Grav 5=1074(LC 1), 8=882(LC 1)

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

TOP CHORD 5-6=-860/141, 1-2=-137/882
 WEBS 1-8=-914/157

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) 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 at joint(s) 5.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=119, 8=152.
- 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) 1214 lb down and 321 lb up at 1-11-4 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: 3-6=-140, 1-3=-70, 5-9=-140, 4-9=-90
 Concentrated Loads (lb)
 Vert: 3=-1214(B)



November 30, 2021

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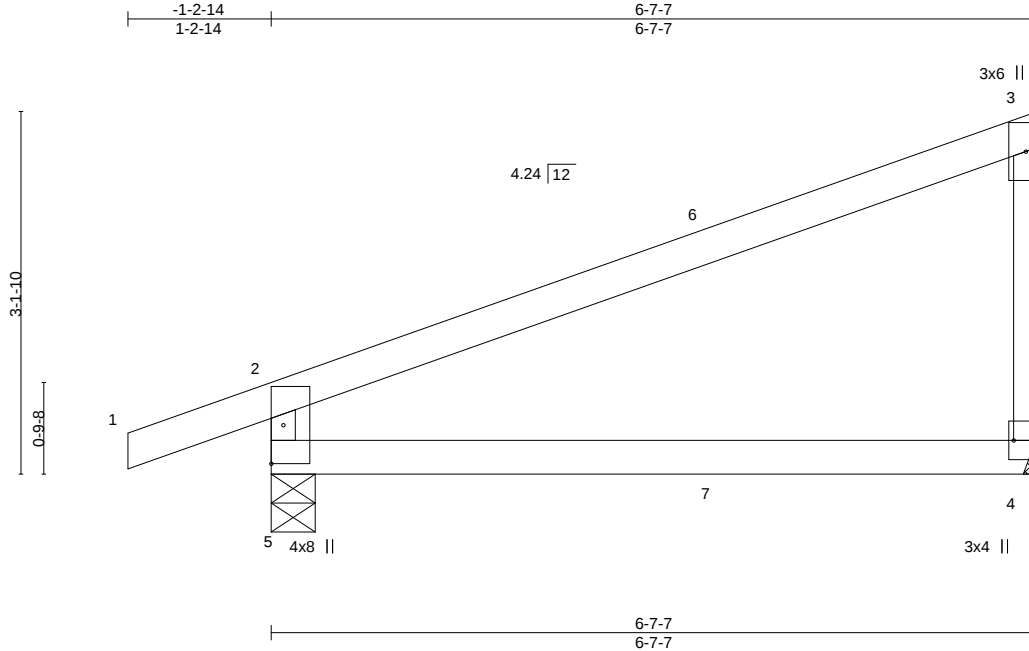


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J8	Diagonal Hip Girder	2	1		I48989434

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:03 2021 Page 1
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Scale = 1:19.9

Plate Offsets (X,Y)--		[4:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66
TCDL 10.0	Lumber DOL	1.15	BC 0.39
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.07 4-5 >999 360
			Vert(CT) -0.15 4-5 >525 240
			Horz(CT) -0.00 4 n/a n/a
			Wind(LL) 0.03 4-5 >999 240
			PLATES
			MT20
			GRIP
			197/144
			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=0-4-9, 4=Mechanical
Max Horz 5=132(LC 24)
Max Uplift 5=-107(LC 4), 4=-66(LC 8)
Max Grav 5=394(LC 1), 4=281(LC 1)

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

TOP CHORD 2-5=-343/155

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=107.
- 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) 79 lb down and 55 lb up at 3-10-9, and 79 lb down and 55 lb up at 3-10-9 on top chord, and 10 lb down at 3-10-9, and 10 lb down at 3-10-9 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=-4(F=-2, B=-2)



November 30, 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	Lot 145 HT	
HT145	J9	Jack-Open	9	1		I48989435

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:04 2021 Page 1
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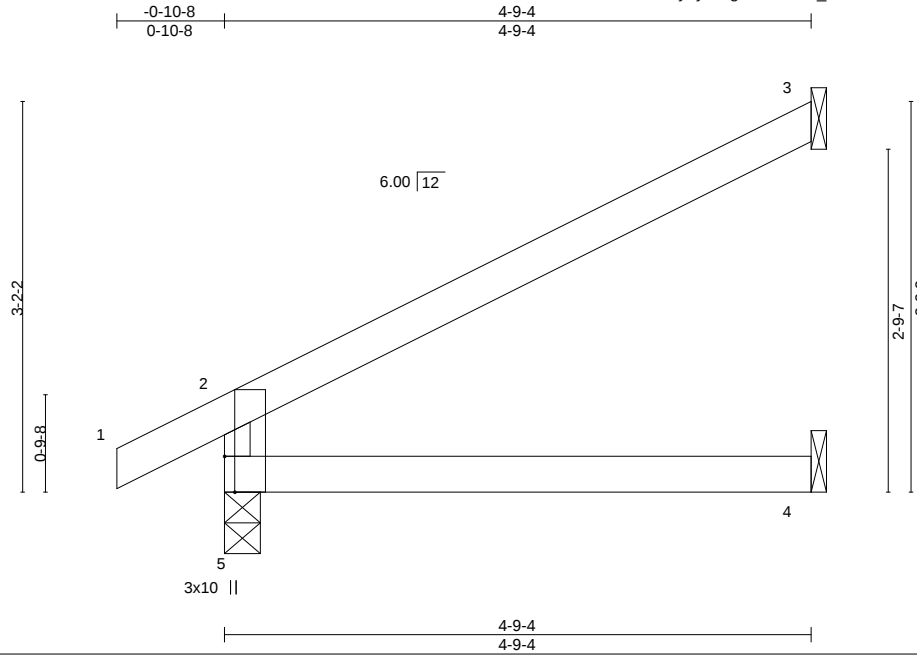


Plate Offsets (X,Y)-- [5:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/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)	0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>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 4-9-4 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=104(LC 8)
Max Uplift 5=-28(LC 8), 3=-83(LC 8)
Max Grav 5=283(LC 1), 3=146(LC 1), 4=88(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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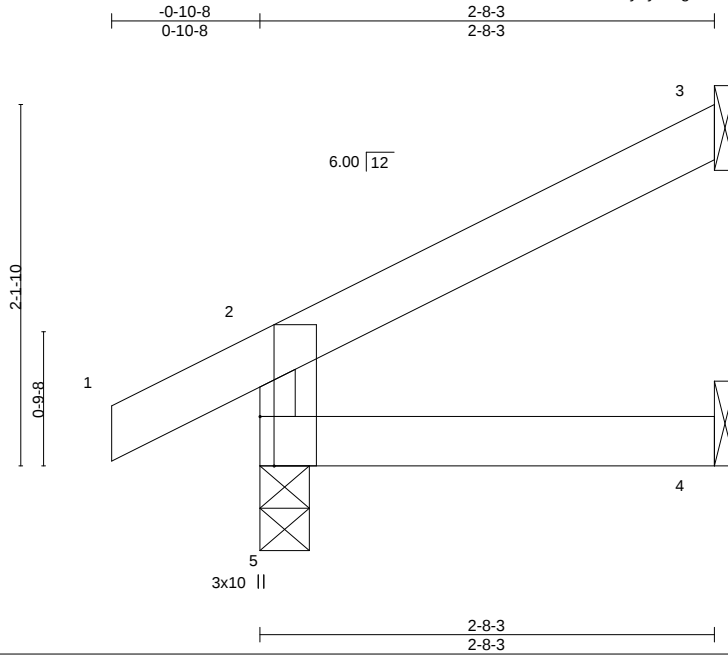


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J10	Jack-Open	4	1		I48989436

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:48 2021 Page 1
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Scale = 1:13.6

Plate Offsets (X,Y)-- [5:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.08	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 2-8-3 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=61(LC 8)
Max Uplift 5=-23(LC 8), 3=-47(LC 8)
Max Grav 5=195(LC 1), 3=74(LC 1), 4=48(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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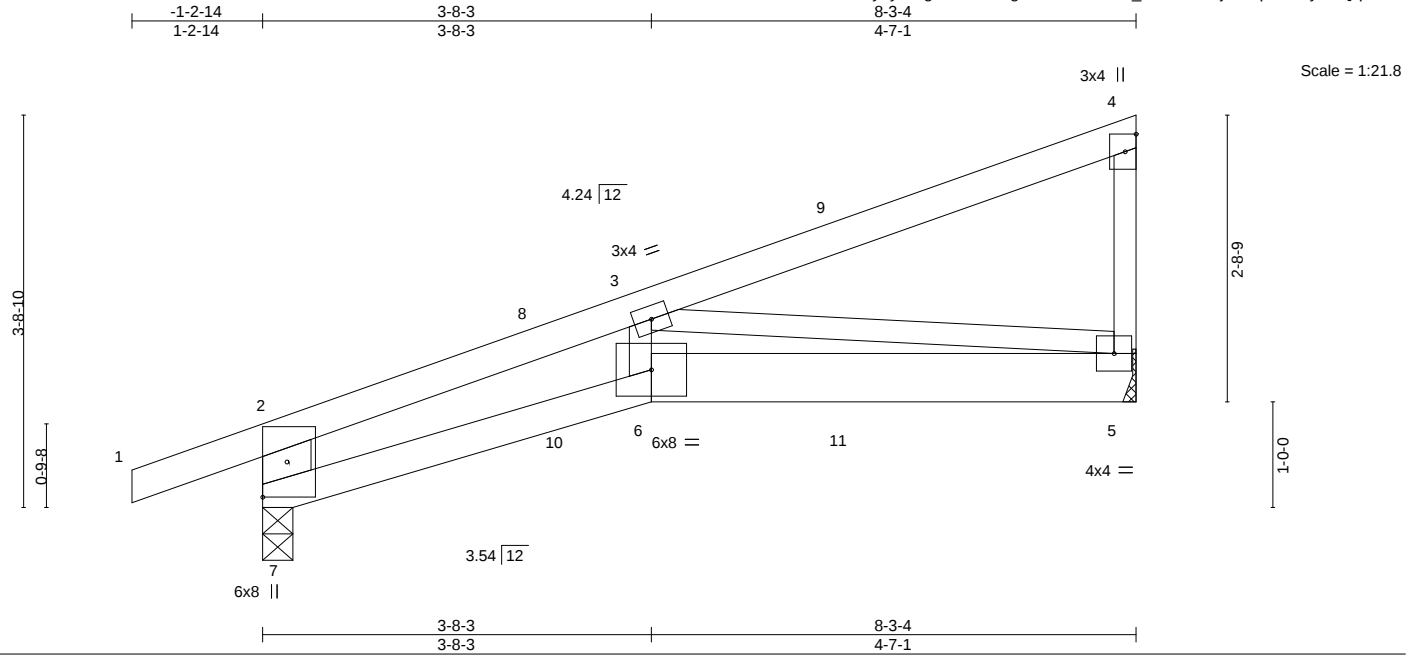
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J11	Diagonal Hip Girder	1	1		I48989437

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:49 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 0.66	Vert(LL)	-0.08	6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.15	6	>646	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.40	Horz(CT)	0.05	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	6	>999	240	
									Weight: 31 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-3-7, 5=Mechanical
 Max Horz 7=142(LC 22)
 Max Uplift 7=-135(LC 4), 5=-111(LC 8)
 Max Grav 7=488(LC 1), 5=387(LC 1)

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

TOP CHORD 2-7=-587/198, 2-3=-849/238
 BOT CHORD 6-7=-284/746, 5-6=-271/756
 WEBS 3-6=0/252, 3-5=-721/264

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) 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 100 lb uplift at joint(s) except (jt=lb) 7=135, 5=111.
- 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) 70 lb down and 38 lb up at 2-8-7, 70 lb down and 38 lb up at 2-8-7, and 98 lb down and 76 lb up at 5-6-6, and 98 lb down and 76 lb up at 5-6-6 on top chord, and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 23 lb down at 5-6-6, and 23 lb down at 5-6-6 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, 2-4=-70, 6-7=-20, 5-6=-20



November 30, 2021

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	Lot 145 HT
HT145	J11	Diagonal Hip Girder	1	1	I48989437

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:49 2021 Page 2
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-DdwrVsgCeFE1uD?Gsk_I?Xo3JRiUjbE?qBvJxTyEKQq

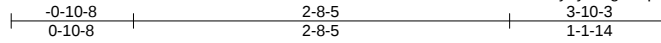
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 9=-33(F=-16, B=-16) 10=1(F=1, B=1) 11=-26(F=-13, B=-13)

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989438
HT145	J12	Jack-Open	2	1	Job Reference (optional)	

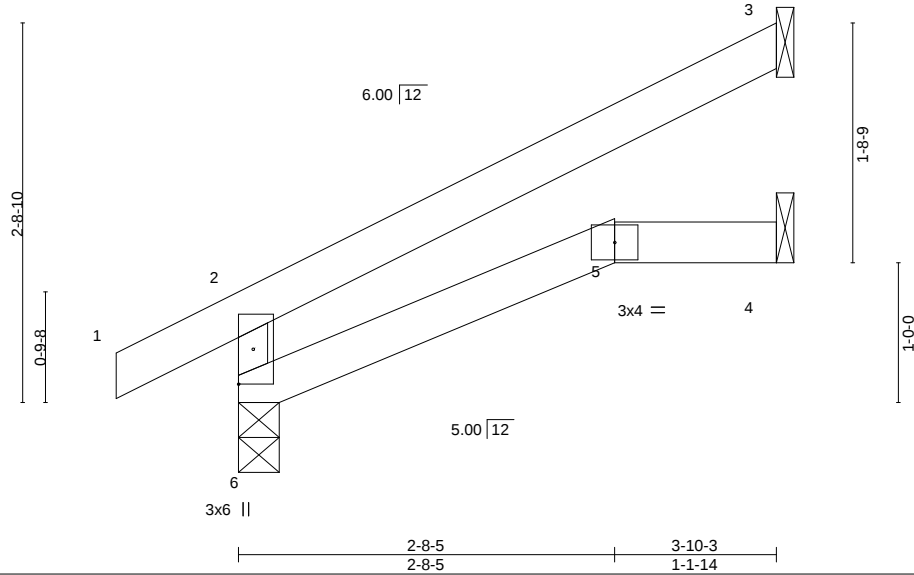
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:50 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-hpUDjChqPZNuWMZSQRV_XkKKGr97S8f82rfsTvyEKQp



Scale = 1:16.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	5-6	>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 3-10-3 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=84(LC 8)
Max Uplift 6=-24(LC 8), 3=-69(LC 8)
Max Grav 6=243(LC 1), 3=115(LC 1), 4=70(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) 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.



November 30, 2021

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

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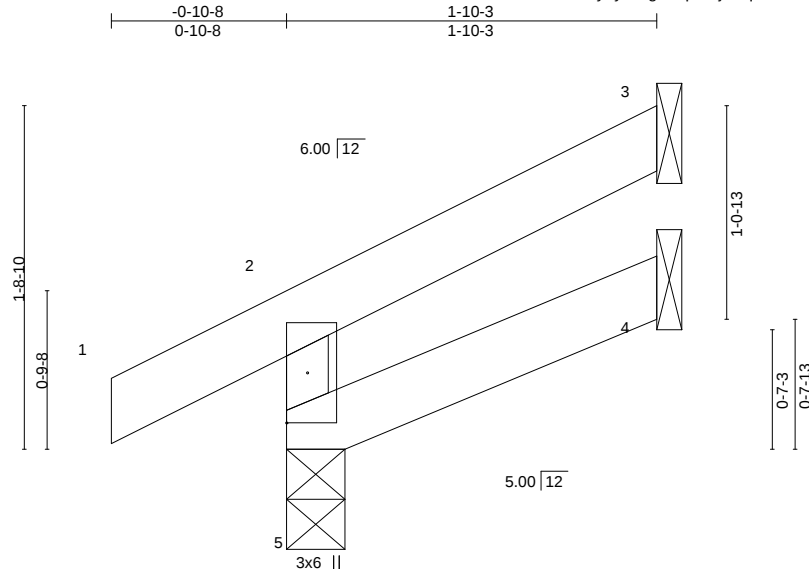
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J13	Jack-Open	2	1		I48989439

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:50 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-hpUDjChqPZNUWMZSQRV_XkKMMrAaS8f82rfsTvyEKQp



Scale = 1:11.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	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	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 6-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=44(LC 8)
Max Uplift 5=-20(LC 8), 3=-33(LC 8)
Max Grav 5=166(LC 1), 3=43(LC 1), 4=32(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.



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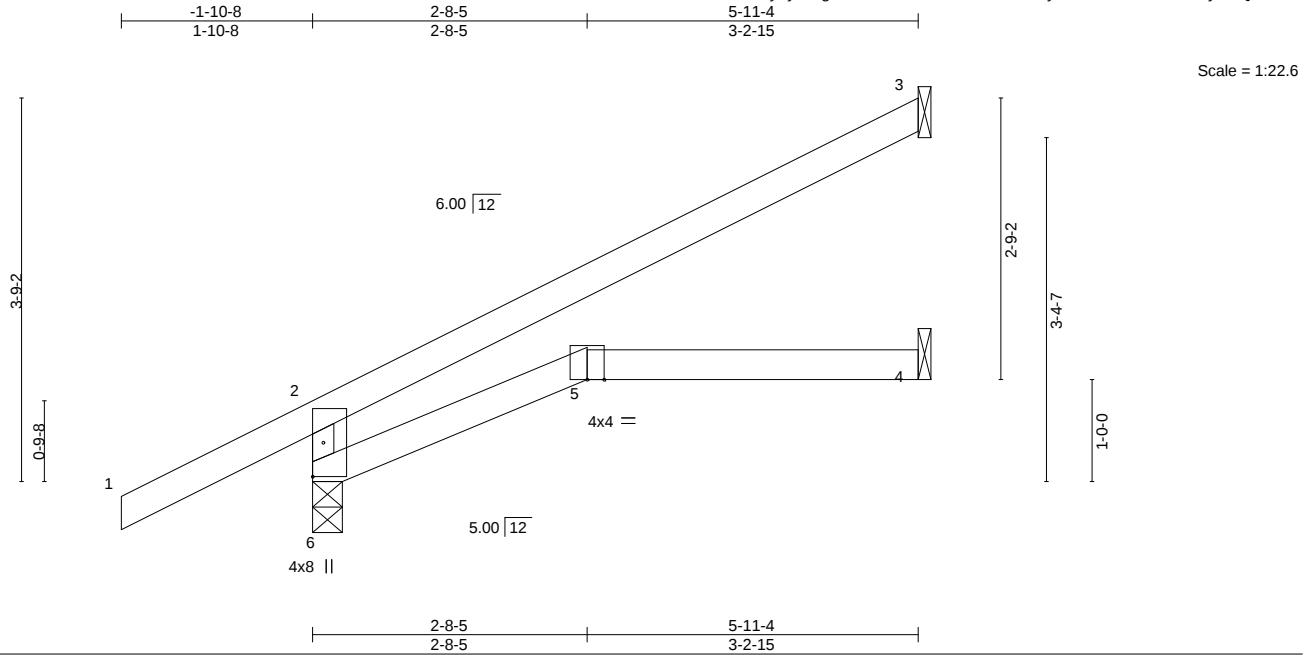


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J14	Jack-Open	3	1		I48989440

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:51 2021 Page 1
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-902bwYiSaTvl8W8ez90D4ytRXFSIBbvlHVOP?LyEKQo



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)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.12	4-5	>594	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.05	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	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 5-11-4 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=100(LC 8)
Max Uplift 6=-8(LC 8), 3=-60(LC 8)
Max Grav 6=422(LC 1), 3=173(LC 1), 4=108(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-369/55

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) 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J15	Jack-Open	7	1		I48989441

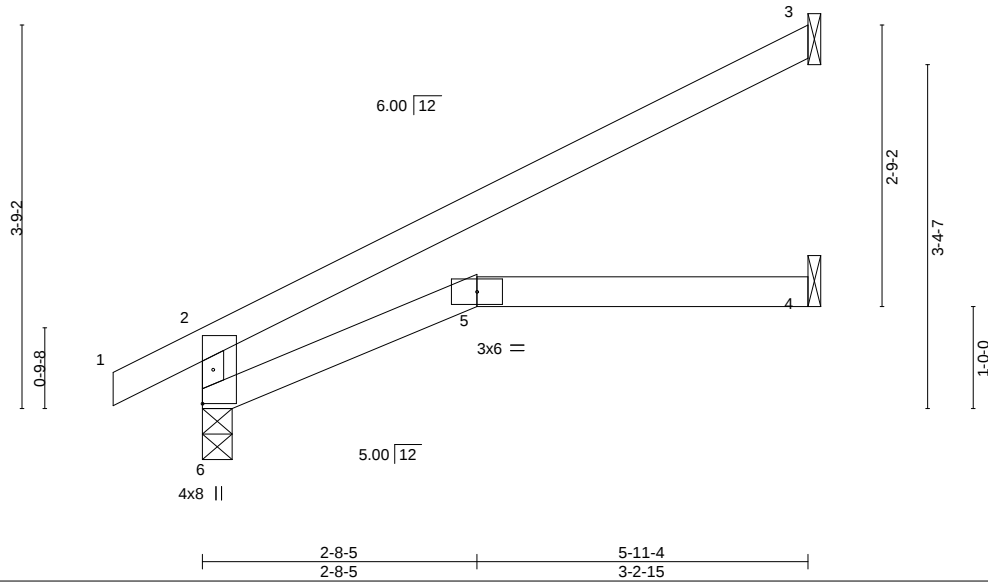
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:51 2021 Page 1

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Scale = 1:22.6



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 0.55	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.12	4-5	>568	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.05	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	5	>999	240	Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 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=89(LC 8)
Max Uplift 3=62(LC 8)
Max Grav 6=334(LC 1), 3=185(LC 1), 4=110(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-6=-288/43

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) 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) 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.



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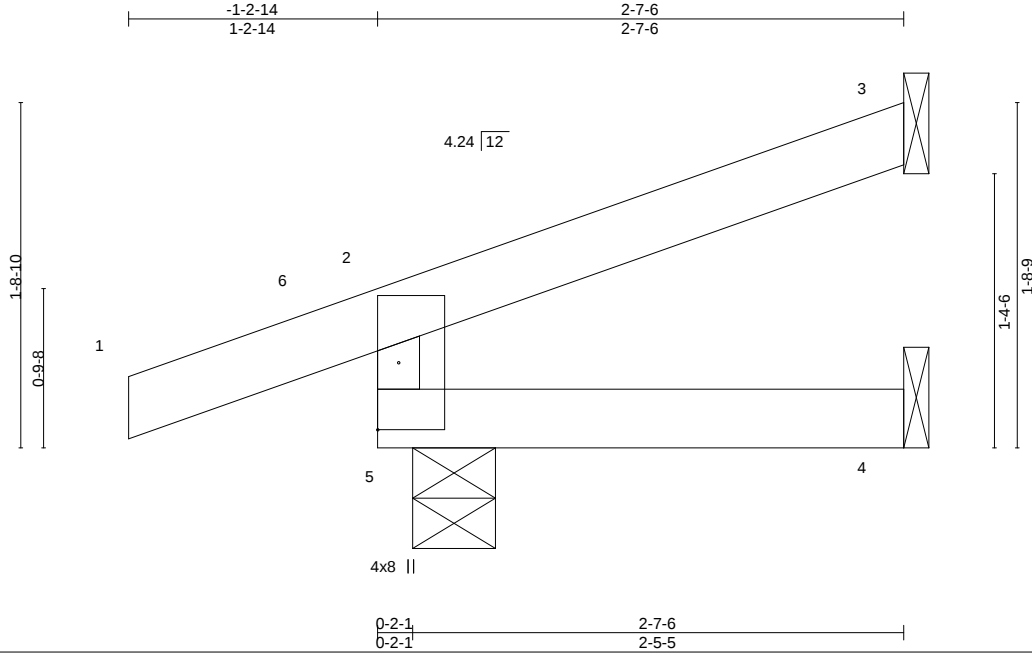


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J16	Diagonal Hip Girder	1	1		I48989442
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:52 2021 Page 1
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-eCcz7tj4xAdclgrXsXSd9PiYerrw28RW98zYnyEKQn



LOADING (psf)	SPACING-		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.09		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=0-4-15, 3=Mechanical, 4=Mechanical
Max Horz 5=61(LC 7)
Max Uplift 5=100(LC 6), 3=-44(LC 12), 4=-2(LC 19)
Max Grav 5=85(LC 1), 3=29(LC 1), 4=34(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.
- 7) 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.
- 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
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)



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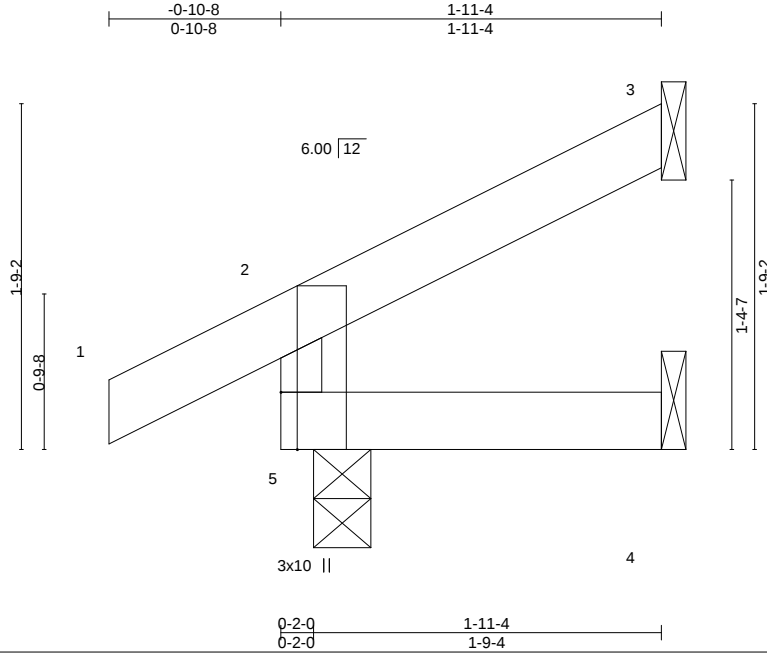
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J17	Jack-Open	1	1		I48989443

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:53 2021 Page 1

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Scale = 1:11.7

Plate Offsets (X,Y)-- [5:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 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=47(LC 8)
Max Uplift 5=-22(LC 8), 3=-34(LC 8)
Max Grav 5=169(LC 1), 3=47(LC 1), 4=34(LC 3)

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

NOTES-

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



November 30, 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

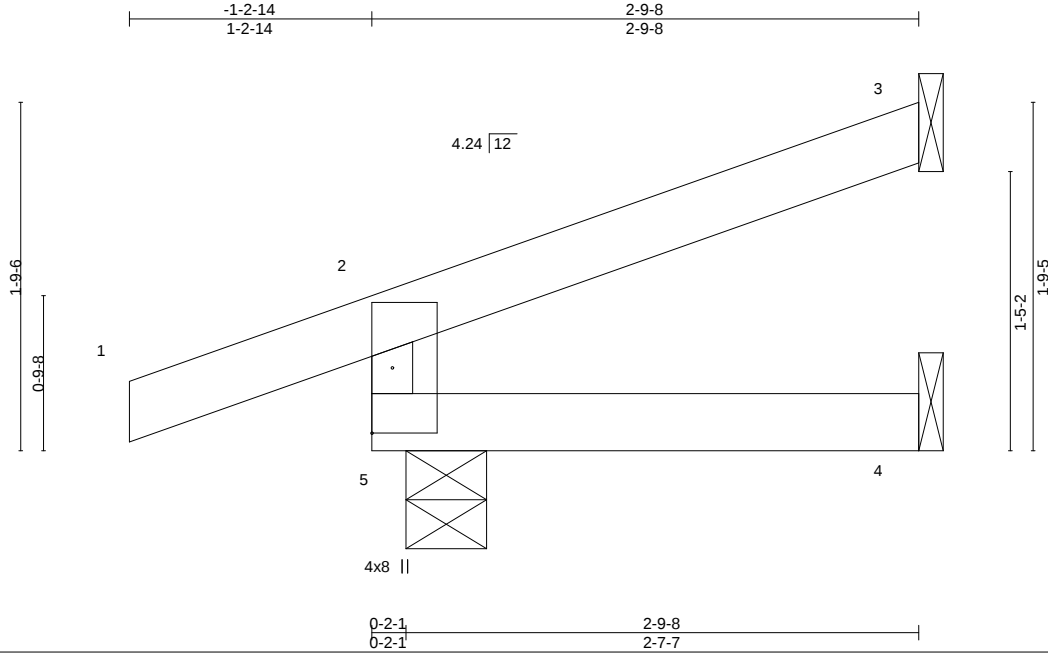


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J18	Diagonal Hip Girder	2	1		I48989444

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:53 2021 Page 1
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Scale = 1:11.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.10	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-R	Wind(LL)	0.00	4-5	>999	240		
	Code IRC2018/TPI2014							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 2-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-15, 3=Mechanical, 4=Mechanical
Max Horz 5=63(LC 7)
Max Uplift 5=94(LC 6), 3=50(LC 12), 4=3(LC 19)
Max Grav 5=95(LC 1), 3=30(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, 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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 20 lb down and 7 lb up at -1-2-14, and 20 lb down and 7 lb up at -1-2-14 on top 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
Concentrated Loads (lb)
Vert: 1=-31(F=-15, B=-15)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-23(F=23, B=23), 2=-3(F=34, B=34)-to-3=-50(F=10, B=10), 5=-0(F=10, B=10)-to-4=-14(F=3, B=3)



November 30, 2021

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

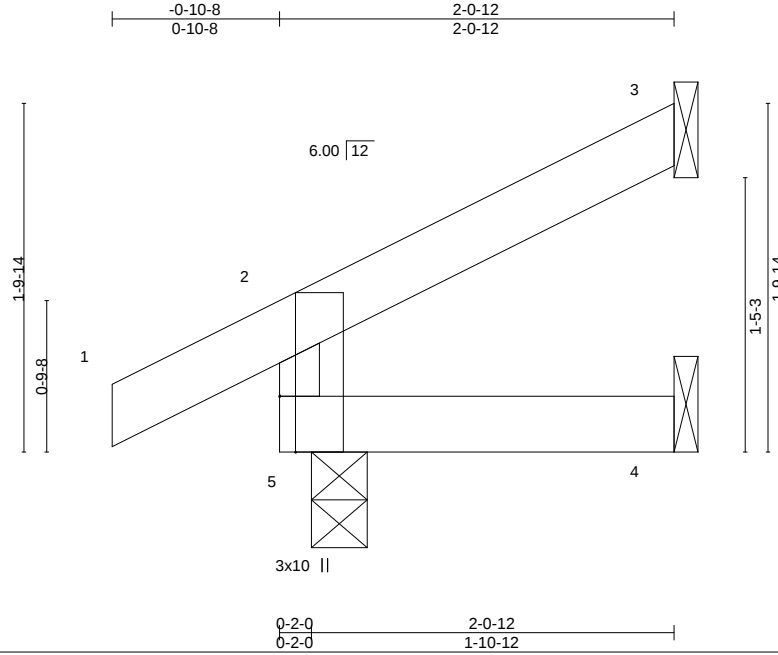


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J19	Jack-Open	3	1		I48989445

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:54 2021 Page 1
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Scale: 1"=1'

Plate Offsets (X,Y)-- [5:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 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 2-0-12 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=48(LC 8)
Max Uplift 5=-22(LC 8), 3=-35(LC 8)
Max Grav 5=172(LC 1), 3=50(LC 1), 4=36(LC 3)

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

NOTES-

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



November 30, 2021

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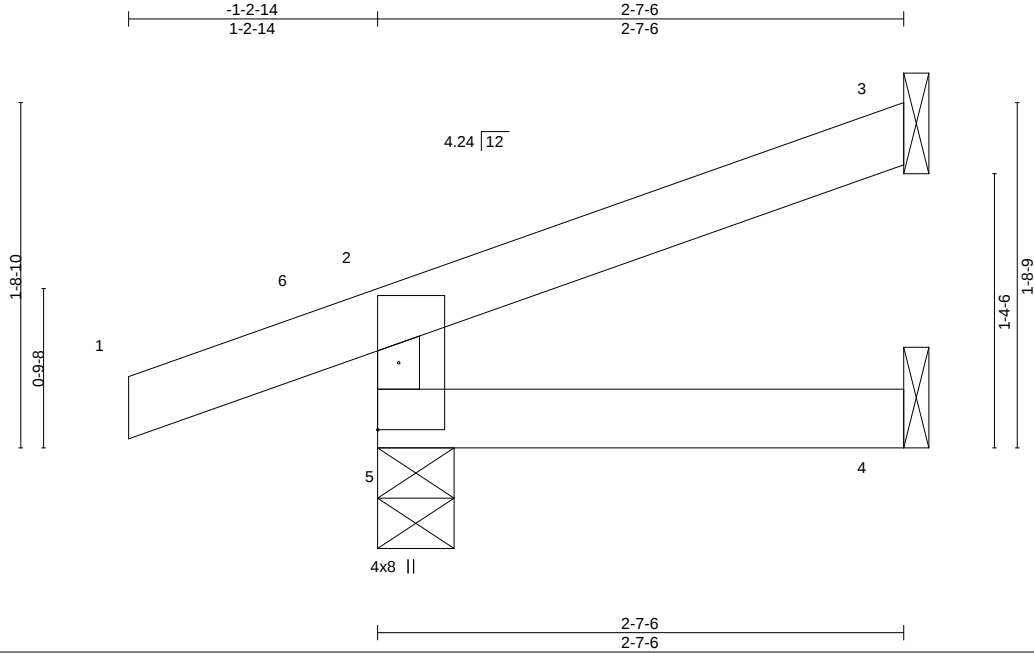


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J22	Diagonal Hip Girder	1	1		I48989446

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:54 2021 Page 1
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Scale = 1:11.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	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=61(LC 7)
Max Uplift 5=100(LC 6), 3=-44(LC 12), 4=-2(LC 19)
Max Grav 5=85(LC 1), 3=29(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)



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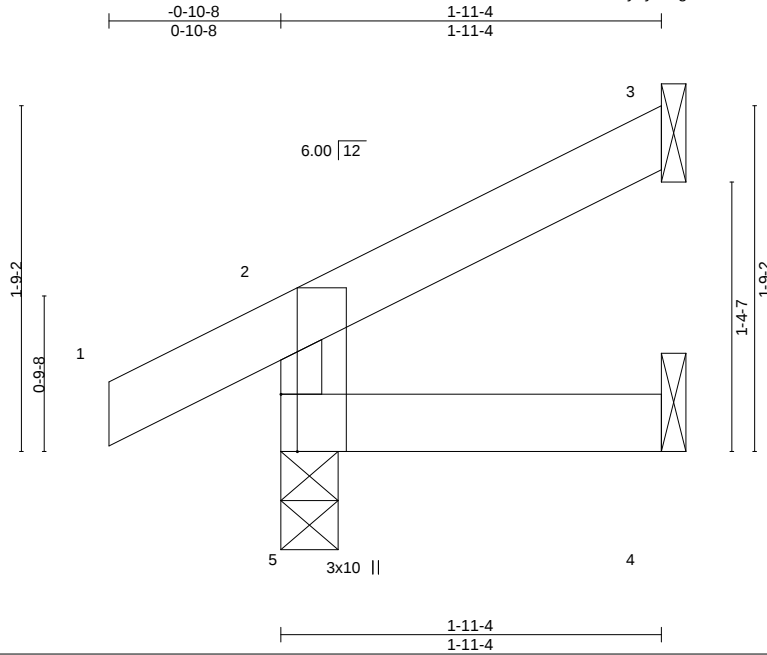


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J23	Jack-Open	3	1		I48989447

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:55 2021 Page 1
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Scale = 1:11.7

Plate Offsets (X,Y)-- [5:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	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=47(LC 8)
Max Uplift 5=-22(LC 8), 3=-34(LC 8)
Max Grav 5=169(LC 1), 3=47(LC 1), 4=34(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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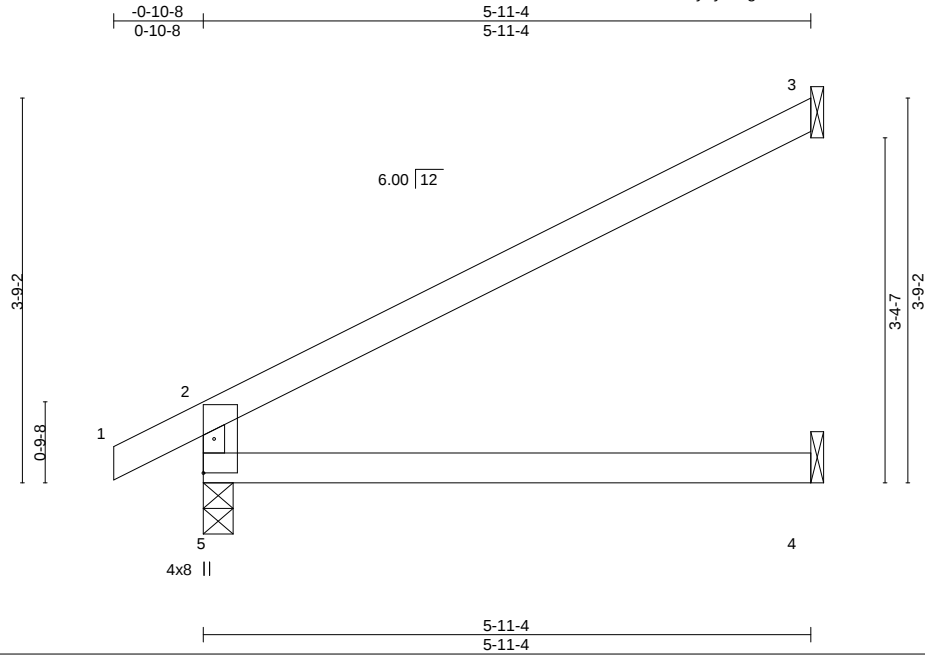
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J25	Jack-Open	5	1		I48989448

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:55 2021 Page 1

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Scale = 1:22.5

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 0.55	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.12	4-5	>582	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	4-5	>999	240	Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 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=89(LC 8)
Max Uplift 3=-61(LC 8)
Max Grav 5=334(LC 1), 3=184(LC 1), 4=110(LC 3)

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

TOP CHORD 2-5=-289/43

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 100 lb uplift at joint(s) 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	Lot 145 HT	i48989449
HT145	J26	Jack-Open	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:56 2021 Page 1
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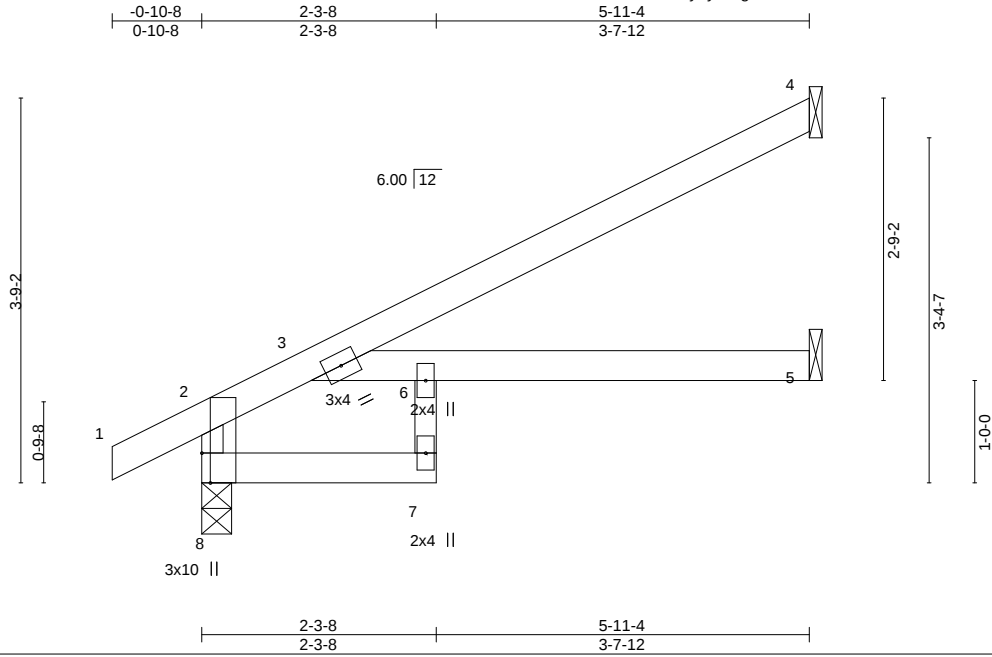


Plate Offsets (X,Y)--		[8:0-3-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.47		Vert(LL)	-0.07 5-6	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.39		Vert(CT)	-0.14 5-6	>480	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.02		Horz(CT)	0.09 5	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 5-6	>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 5-11-4 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=89(LC 8)
Max Uplift 4=-51(LC 8)
Max Grav 8=351(LC 1), 4=173(LC 1), 5=113(LC 3)

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

TOP CHORD 2-8=-344/13

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 100 lb uplift at joint(s) 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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989450
HT145	J27	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:57 2021 Page 1

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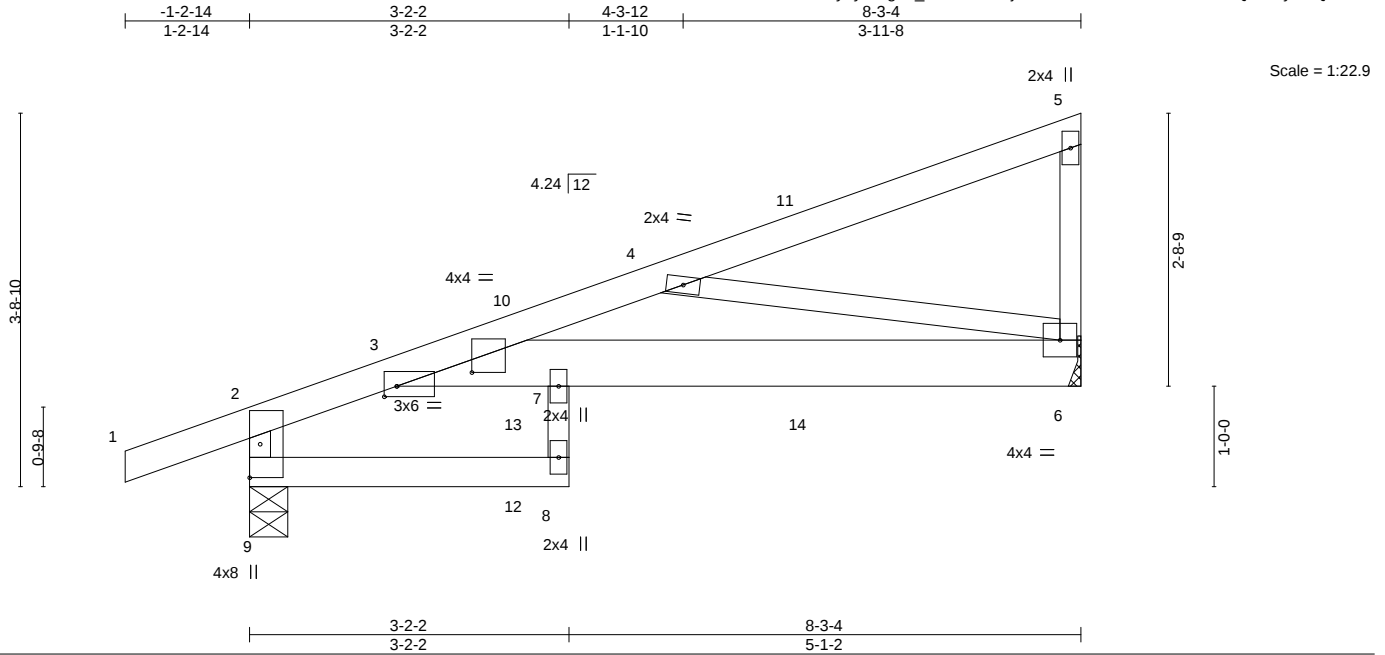


Plate Offsets (X,Y)--		[3:0-8-15,0-1-10], [3:0-1-8,0-1-4]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.72	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.44	Vert(LL) -0.06 7 >999 360
BCLL 0.0 *	Rep Stress Incr NO	WB 0.31	Vert(CT) -0.14 6-7 >702 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.08 6 n/a n/a
			Wind(LL) 0.06 8 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 33 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 9=0-4-9, 6=Mechanical
 Max Horz 9=141(LC 5)
 Max Uplift 9=-117(LC 4), 6=-87(LC 8)
 Max Grav 9=490(LC 1), 6=409(LC 1)

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

TOP CHORD 2-9=-472/145, 3-4=-789/261
 BOT CHORD 3-7=-287/759, 6-7=-287/759
 WEBS 4-6=-741/305

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) 6 except (jt=lb) 9=117.
- 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 37 lb up at 2-8-7, 69 lb down and 37 lb up at 2-8-7, and 97 lb down and 63 lb up at 5-6-6, and 97 lb down and 63 lb up at 5-6-6 on top chord, and 3 lb down and 1 lb up at 2-8-7, 3 lb down and 1 lb up at 2-8-7, and 32 lb down at 5-6-6, and 32 lb down at 5-6-6 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, 2-5=-70, 8-9=-20, 6-7=-20
 Concentrated Loads (lb)
 Vert: 11=-19(F=-9, B=-9) 12=1(F=1, B=1) 14=-62(F=-31, B=-31)



November 30, 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



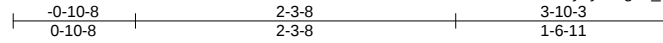
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J28	Jack-Open	2	1		I48989451

Wheeler Lumber, Waverly, KS - 66871,

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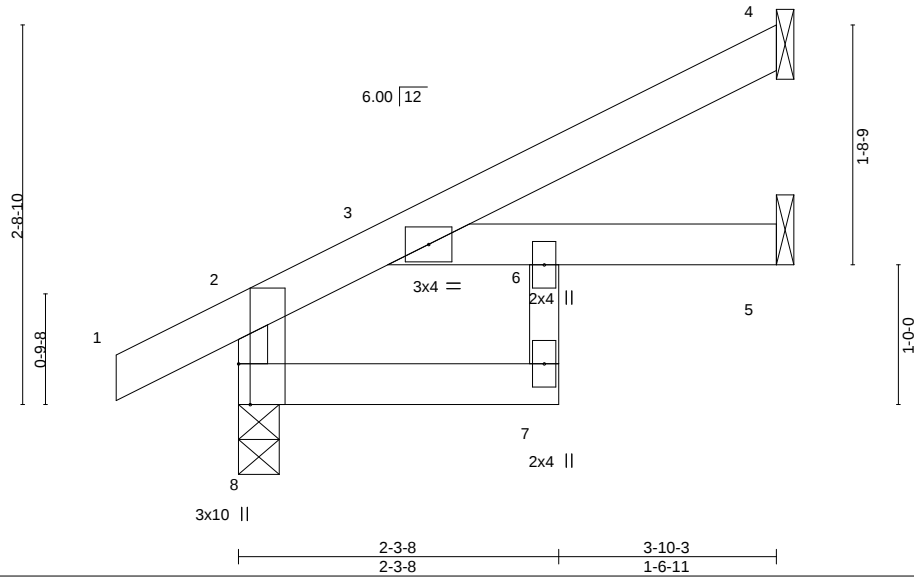


Plate Offsets (X,Y)-- [8:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	3-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02	3-6	>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 3-10-3 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=-18(LC 8), 4=-54(LC 8)
Max Grav 8=256(LC 1), 4=107(LC 1), 5=79(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) 8, 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.



November 30, 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



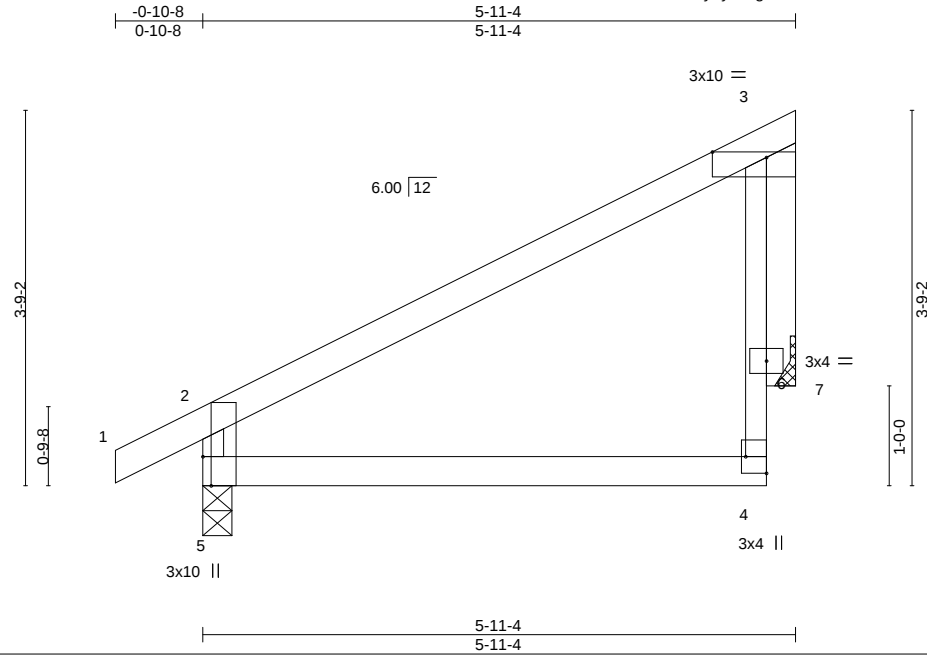
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J29	Jack-Closed	7	1		I48989452

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:23.1

Plate Offsets (X,Y)-- [3:0-6-8,Edge], [4:Edge,0-2-8], [5:0-3-8,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.31	Vert(LL)	-0.03	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 0.29	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 21 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 7=Mechanical
Max Horz 5=83(LC 5)
Max Uplift 7=-35(LC 8)
Max Grav 5=332(LC 1), 7=226(LC 1)

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

TOP CHORD 2-5=-291/41

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 100 lb uplift at joint(s) 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

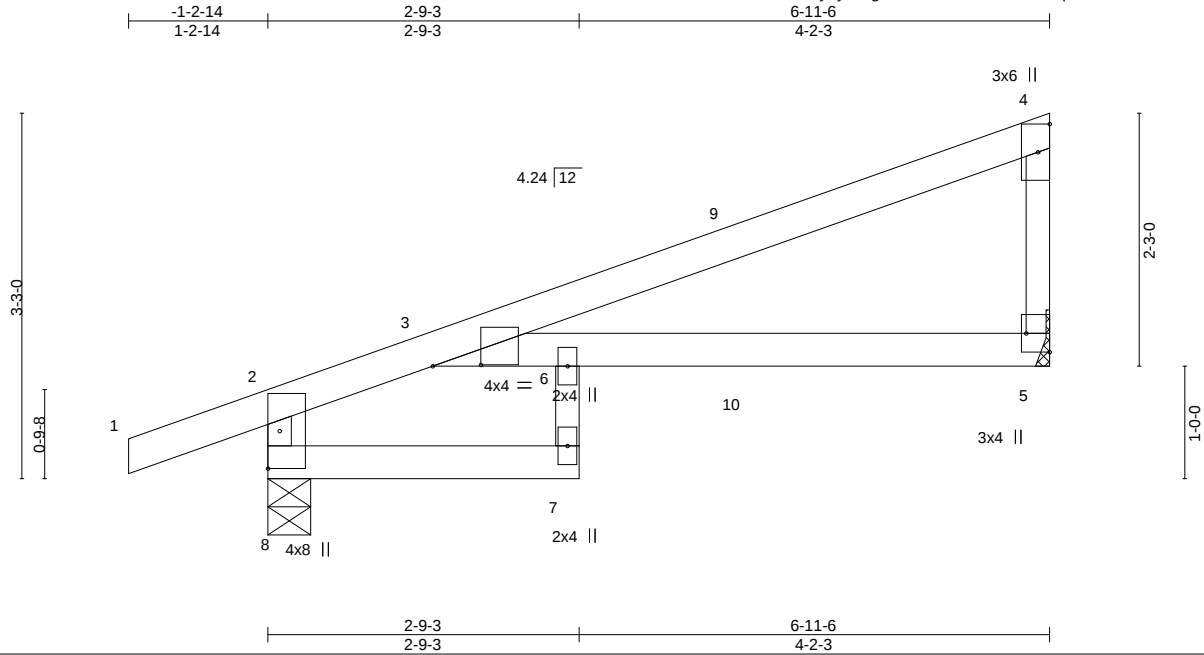
Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J30	Diagonal Hip Girder	2	1		I48989453

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:59 2021 Page 1

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Job Reference (optional)



Scale = 1:20.5

Plate Offsets (X,Y)-- [3:0-5-2,0-0-2], [5: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 0.65	Vert(LL)	-0.13	5-6	>643	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.56	Vert(CT)	-0.23	5-6	>345	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.02	Horz(CT)	0.12	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.14	5-6	>577	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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-4-9, 5=Mechanical
Max Horz 8=121(LC 5)
Max Uplift 8=120(LC 4), 5=90(LC 8)
Max Grav 8=419(LC 1), 5=314(LC 1)

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

TOP CHORD 2-8=408/147

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=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) 82 lb down and 50 lb up at 4-2-8, and 82 lb down and 50 lb up at 4-2-8 on top chord, and 21 lb down and 21 lb up at 4-2-8, and 21 lb down and 21 lb up at 4-2-8 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, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=-32(F=-16, B=-16)



November 30, 2021

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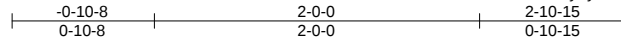
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J31	Jack-Open	4	1		I48989454

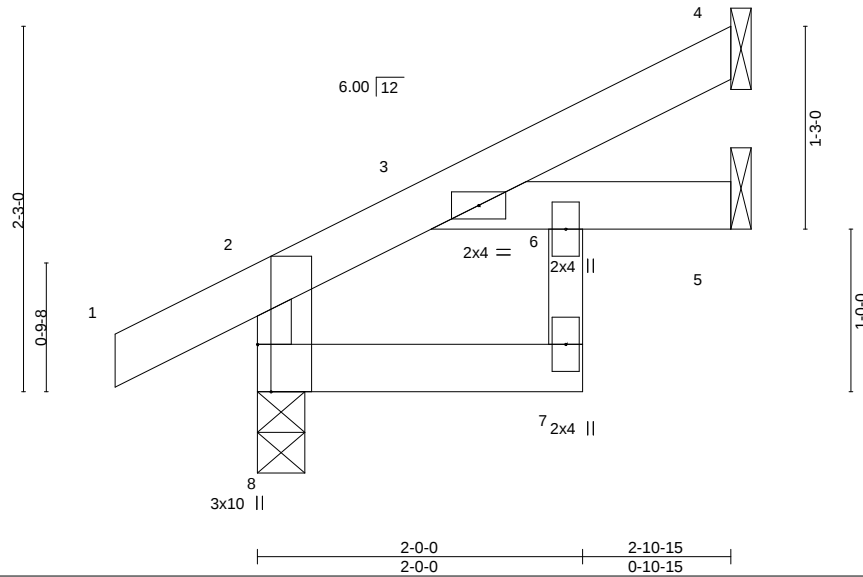
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:02:59 2021 Page 1

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Scale = 1:14.2



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 0.09	Vert(LL)	-0.00	3	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	3	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.01	Horz(CT)	-0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01	3	>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 2-10-15 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=66(LC 8)
Max Uplift 8=-19(LC 8), 4=-39(LC 8), 5=-2(LC 8)
Max Grav 8=213(LC 1), 4=75(LC 1), 5=60(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) 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	J32	Jack-Open	3	1		I48989455

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:00 2021 Page 1
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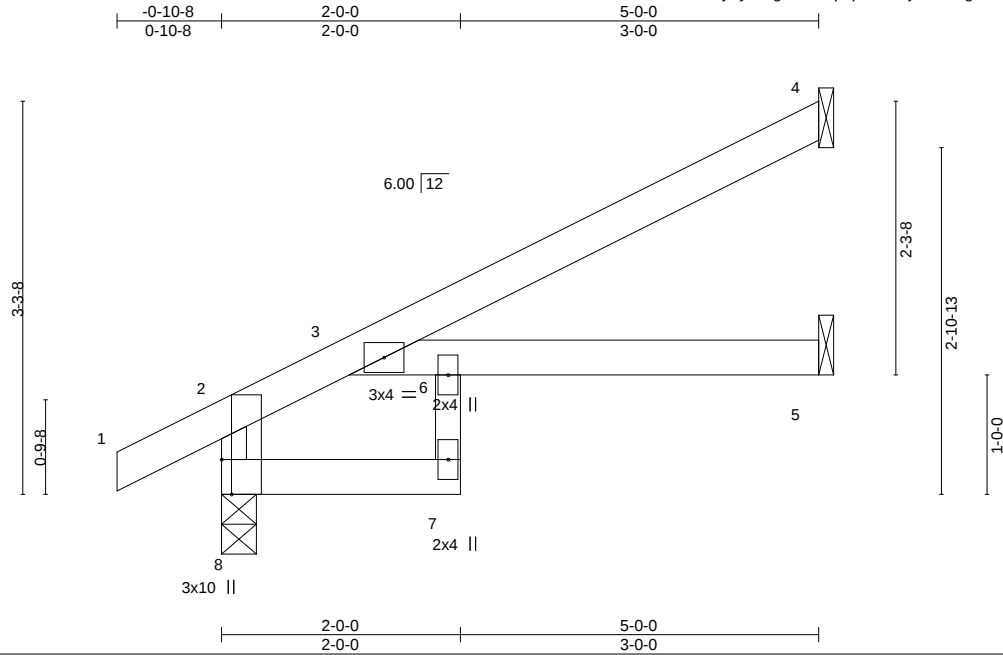


Plate Offsets (X,Y)--		[8:0-3-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.31		Vert(LL)	-0.03 6	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.27		Vert(CT)	-0.07 5-6	>809	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.01		Horz(CT)	0.05 5	n/a	n/a		
BCDL 10.0		Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.05 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 5-0-0 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=108(LC 8)
Max Uplift 8=-22(LC 8), 4=-73(LC 8)
Max Grav 8=305(LC 1), 4=143(LC 1), 5=93(LC 3)

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

TOP CHORD 2-8=-296/53

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



November 30, 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

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

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



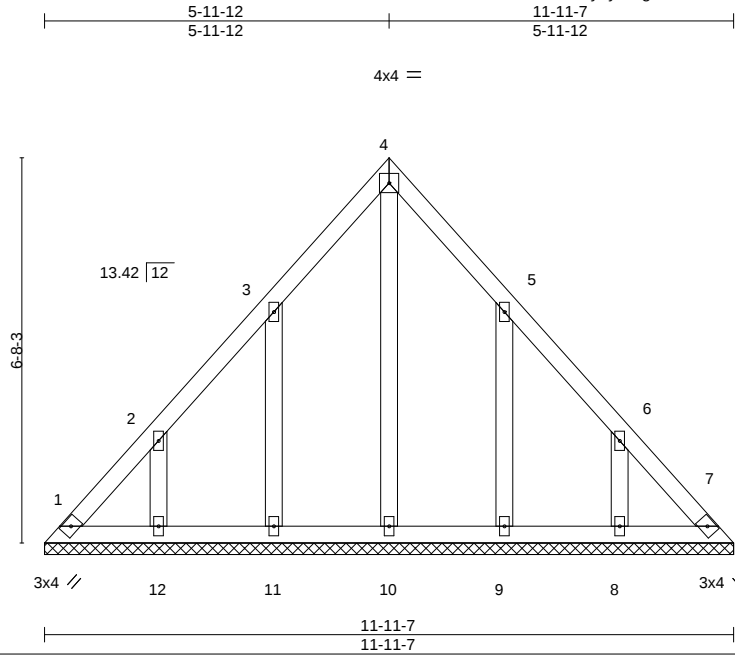
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	LAY1	Lay-In Gable	1	1	Job Reference (optional)

I48989456

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:05 2021 Page 1
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-liuusKtEtAGmpgDKo5GVevSynuHxTw7MVgn9VxyEKQa



Scale = 1:40.0

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 0.05	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 0.08	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 53 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 11-11-7.
(lb) - Max Horz 1=170(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=142(LC 8), 12=137(LC 8), 9=141(LC 9),
8=138(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.

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
- 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, 7 except (jt=lb) 11=142, 12=137, 9=141, 8=138.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 30, 2021

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

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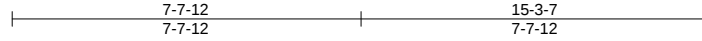


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	LAY2	Lay-In Gable	1	1		I48989457

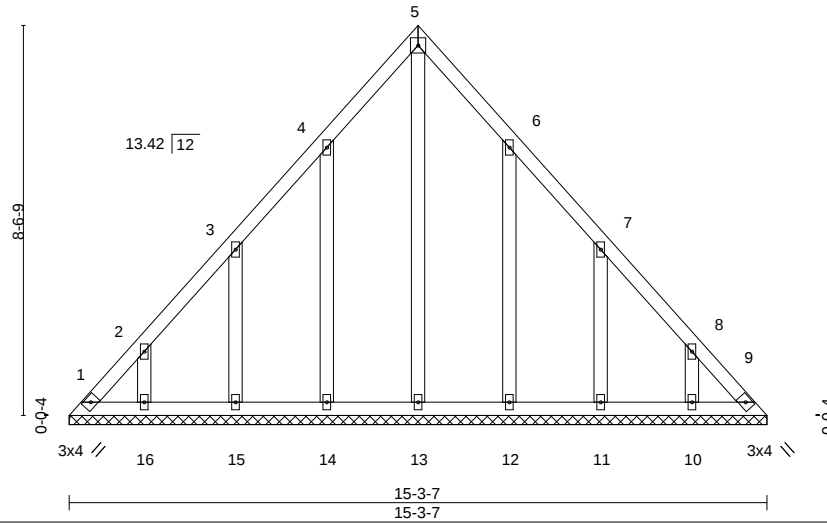
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:07 2021 Page 1
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4x4 =

Scale = 1:50.5



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 0.20	Horz(CT) 0.00	9	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S						Weight: 76 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 15-3-7.

(lb) - Max Horz 1=-221(LC 4)

Max Uplift All uplift 100 lb or less at joint(s) 9 except 1=-111(LC 6), 14=-138(LC 8), 15=-140(LC 8),
16=-124(LC 8), 12=-136(LC 9), 11=-140(LC 9), 10=-124(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

FORCES.

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

TOP CHORD 1-2=-307/193, 8-9=-276/146

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) 9 except (jt=lb) 1=111, 14=138, 15=140, 16=124, 12=136, 11=140, 10=124.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 30, 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

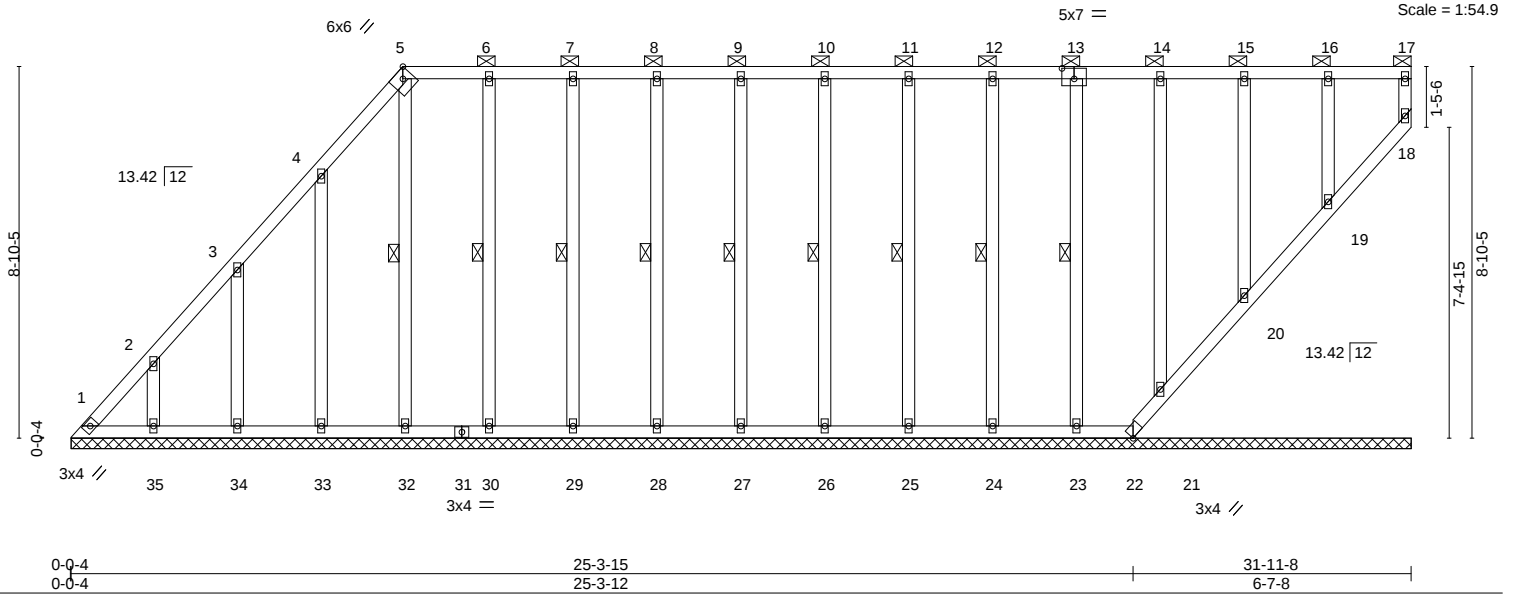


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989458
HT145	LAY3	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:08 2021 Page 1
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-AHa1UMv7A5eKg7yvTDqCGX4Sv5JfgFnoBe0p6syEKQX
31-11-8
24-0-6



0-0-4	25-3-15	31-11-8
0-0-4	25-3-12	6-7-8
Plate Offsets (X,Y)-- [5:0-2-10,Edge], [13:0-3-8,0-3-0]		
LOADING (psf)	SPACING-	CSI.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.06
TCDL 10.0	Lumber DOL 1.15	BC 0.03
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S
DEFL.	DEF.	DEF.
Vert(LL) n/a	in (loc) -	l/defl n/a
Vert(CT) n/a	-	n/a
Horz(CT) -0.00	18	n/a
PLATES	GRIP	
MT20	197/144	
Weight: 199 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

REACTIONS.

All bearings 31-11-4.
(lb) - Max Horz 1=324(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 18, 22, 32, 30, 29, 28, 27, 26, 25, 24, 23, 21, 20, 19 except
35=138(LC 8), 34=134(LC 8), 33=144(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 18, 22, 35, 34, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 21,
20, 19 except 1=314(LC 8)

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

TOP CHORD 1-2=-437/193, 2-3=-307/142

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 18, 22, 32, 30, 29, 28, 27, 26, 25, 24, 23, 21, 20, 19 except (jt=lb) 35=138, 34=134, 33=144.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 18, 21, 20, 19.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:10 2021 Page 1
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6-11-13	15-11-10	17-4-10	20-4-10	25-11-7
6-11-13	8-11-13	1-5-0	3-0-0	5-6-13



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.): 5-10, 11-14.
OTHERS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 17, 23, 24, 25, 26, 27, 20 except (jt=lb) 28=150, 29=134, 21=103, 19=133, 18=139.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

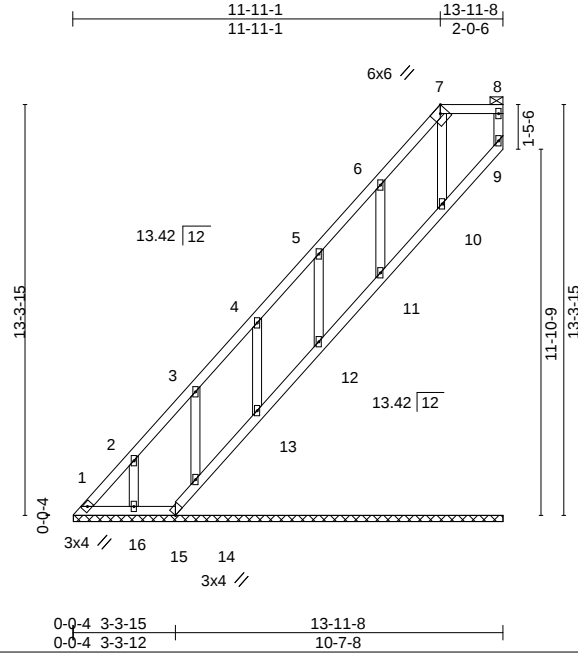


Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	LAY5	GABLE	1	1	i48989460

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:11 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-asF97Nx?T00vXbgU8LNvuAiyzJKMteLEtcETJByEKQU



Scale = 1:74.8

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

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)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 66 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 13-11-4.
(lb) - Max Horz 1=507(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9, 15, 10 except 1=170(LC 6), 16=140(LC 8), 14=144(LC 8), 13=136(LC 8), 12=133(LC 8), 11=151(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 9, 15, 16, 14, 13, 12, 11, 10 except 1=497(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-681/288, 2-3=-552/237, 3-4=-414/184, 4-5=-277/131

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) Provide adequate drainage to prevent water ponding.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 15, 10 except (jt=lb) 1=170, 16=140, 14=144, 13=136, 12=133, 11=151.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 14, 13, 12, 11, 10.
- 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.
- 10) 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	Lot 145 HT
HT145	LAY6	Lay-In Gable	1	1	i48989461

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:11 2021 Page 1

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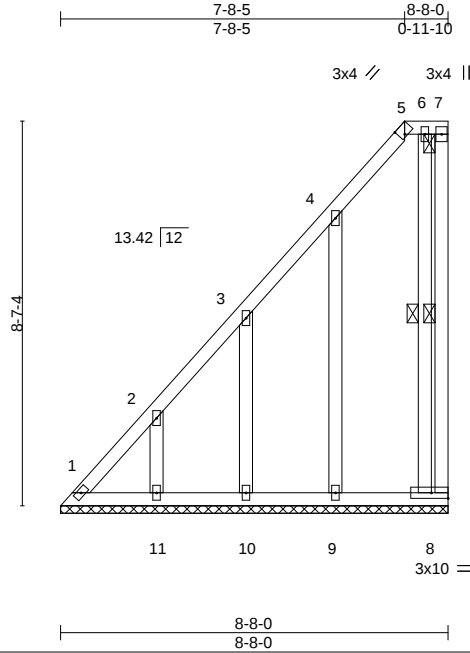


Plate Offsets (X,Y)-- [5:0-1:6,Edge]

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 0.33	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 56 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 8-8-0.
(lb) - Max Horz 1=330(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) except 1=-132(LC 6), 8=-127(LC 7), 11=-145(LC 8), 10=-133(LC 8), 9=-141(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 8, 11, 10, 9 except 1=263(LC 5)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-356/244, 2-3=-278/188
WEBS 6-8=-210/289

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 132 lb uplift at joint 1, 127 lb uplift at joint 8, 145 lb uplift at joint 11, 133 lb uplift at joint 10 and 141 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 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	Lot 145 HT	
HT145	LAY7	GABLE	1	1		I48989462

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:12 2021 Page 1
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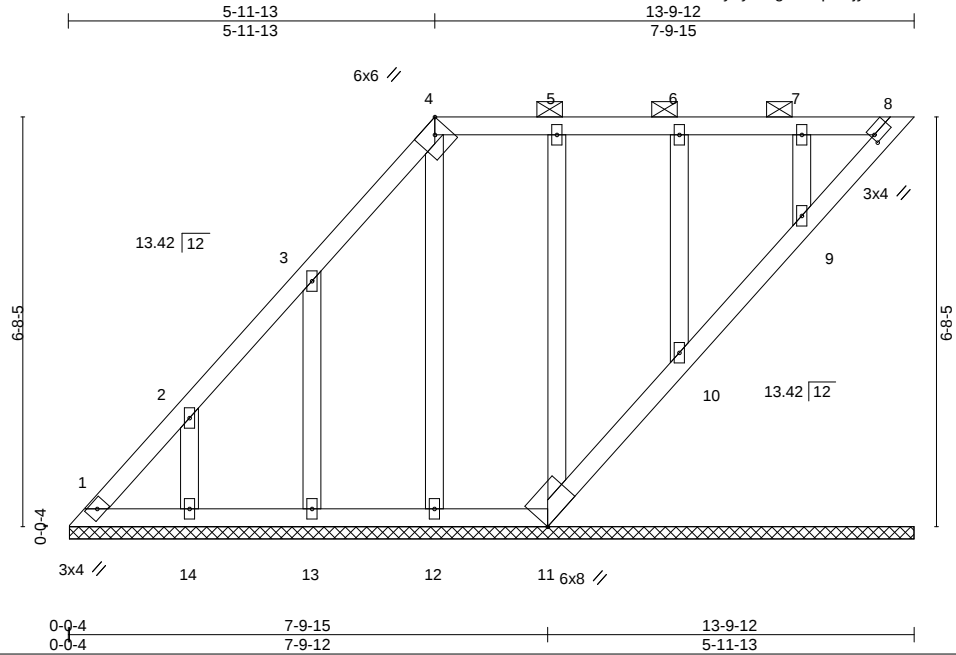


Plate Offsets (X,Y)-- [4:0-2-10,Edge], [8:0-0-11,0-1-8]

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 0.10	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 63 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.); 4-8.
OTHERS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 13-9-8.
(lb) - Max Horz 1=261(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 11, 12, 10, 9 except 14=135(LC 8), 13=148(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 11, 14, 13, 12, 10, 9

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=273/114

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 8, 11, 12, 10, 9 except (jt=lb) 14=135, 13=148.
- 8) N/A
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 2021

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

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



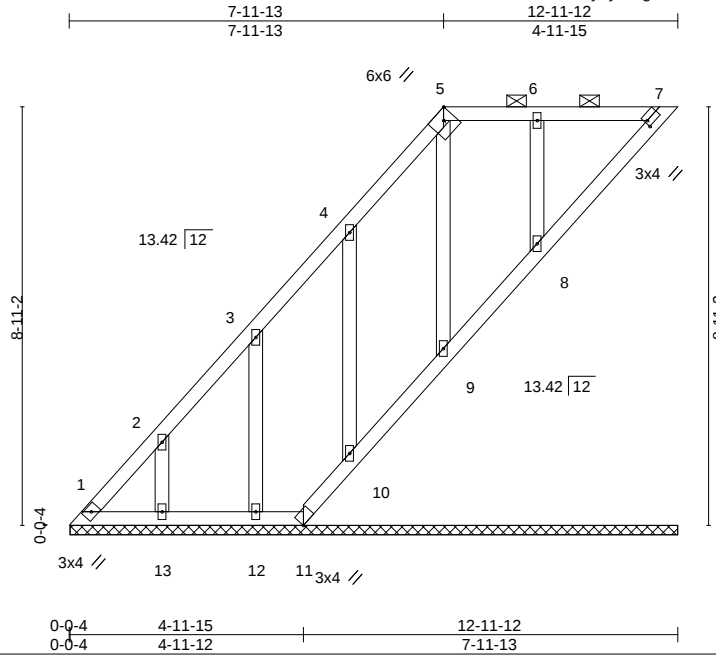
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT
HT145	LAY8	GABLE	1	1	148989463

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:13 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-WFNvX3zG_dGdnvqtGmPNzbnlF60YLX7XLwjan3yEKQS



Scale = 1:49.1

Plate Offsets (X,Y)-- [5:0-2-10,Edge], [7:0-0-11,0-1-8]

LOADING (psf)	SPACING-	CSL.	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 0.05	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) -0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 59 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.): 5-7.
OTHERS 2x4 SPF No.2	Rigid ceiling directly applied or 10'-0-0 oc bracing, Except:
	6'-0-0 oc bracing: 7-8.

REACTIONS. All bearings 12-11-8.
 (lb) - Max Horz 1=352(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 11, 8 except 13=138(LC 8), 12=135(LC 8), 10=155(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 7, 11, 13, 12, 10, 9 except 1=267(LC 8), 8=259(LC 22)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=374/154

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 11, 8 except (jt=lb) 13=138, 12=135, 10=155.
- 8) N/A
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 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	Lot 145 HT	
HT145	LAY9	Lay-In Gable	1	1		I48989464

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:14 2021 Page 1
ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-_RxllP_ulxOUO2P3qUwcWoKSTWLP4_rgaaT7JWYKQR
31-3-0
25-3-14

Scale = 1:50.8

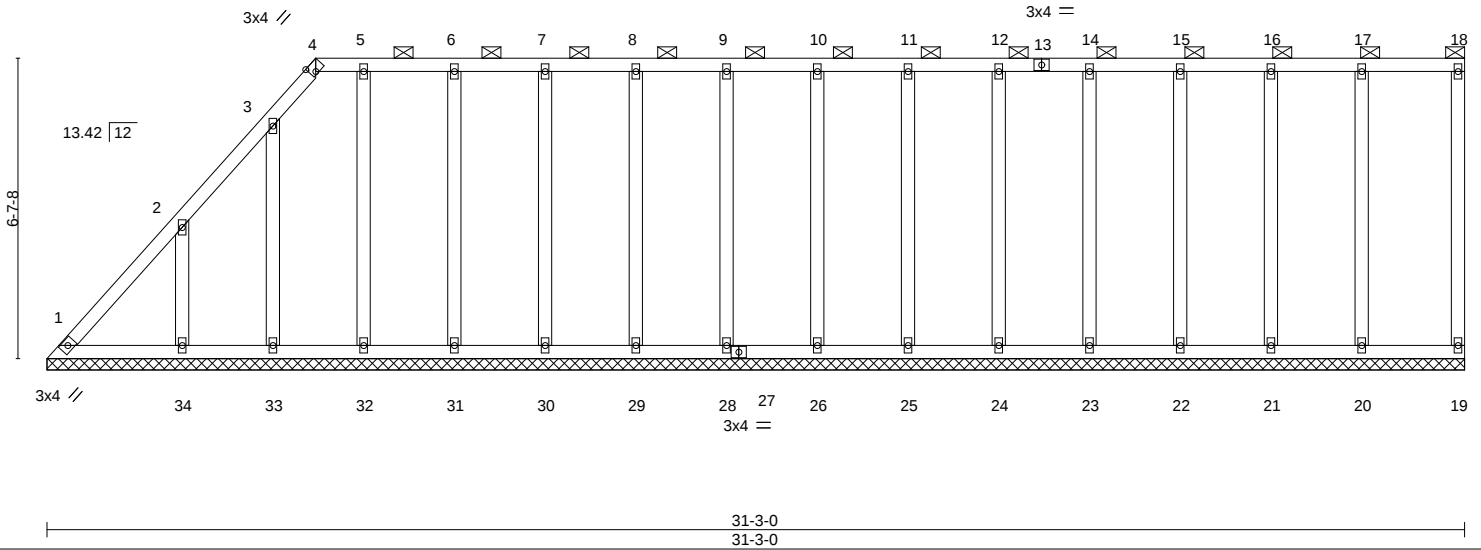


Plate Offsets (X,Y)-- [4:0-1-6,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	19	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 173 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-18.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 31-3-0.

(lb) - Max Horz 1=251(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 1, 19, 33, 32, 31, 30, 29, 28, 26, 25, 24, 23, 22, 21, 20 except

34=199(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 19, 33, 32, 31, 30, 29, 28, 26, 25, 24, 23, 22, 21, 20 except 34=287(LC 15)

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

TOP CHORD 1-2=260/186

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, 19, 33, 32, 31, 30, 29, 28, 26, 25, 24, 23, 22, 21, 20 except (jt=lb) 34=199.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 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	Lot 145 HT	
HT145	LAY10	Lay-In Gable	1	1		I48989465
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:06 2021 Page 1

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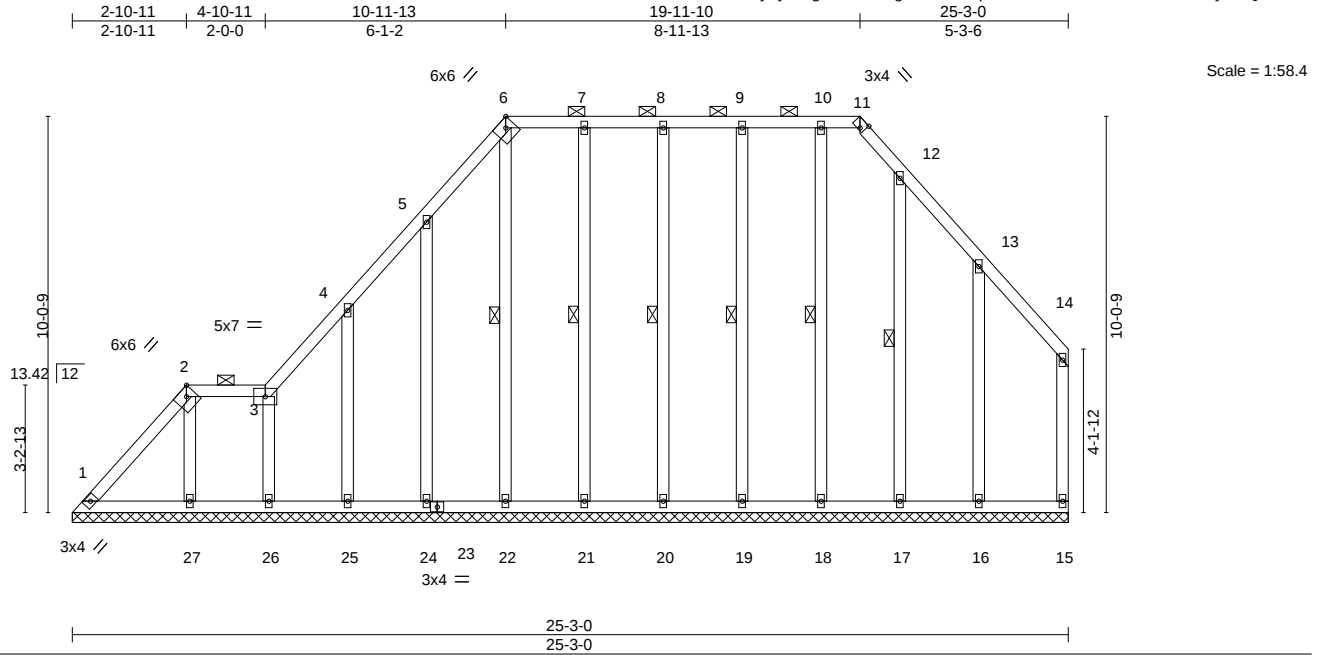


Plate Offsets (X,Y)-- [2:0-2-10,Edge], [6:0-2-10,Edge], [11:0-1-6,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0		TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15		BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15		WB 0.17	Horz(CT)	-0.00	15	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES		Matrix-S							
	Code IRC2018/TPI2014								Weight: 161 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3, 6-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-22, 7-21, 8-20, 9-19, 10-18, 12-17

REACTIONS.

All bearings 25-3-0.
(lb) - Max Horz 1=314(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 15, 21, 20, 19, 18 except 1=196(LC 4), 27=271(LC 5), 26=204(LC 4), 25=149(LC 8), 24=140(LC 8), 22=125(LC 7), 16=196(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 15, 25, 24, 22, 21, 20, 19, 18, 17 except 1=301(LC 7), 27=365(LC 15), 26=296(LC 16), 16=264(LC 16)

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

TOP CHORD 1-2=-375/330, 3-4=-323/296, 4-5=-288/286, 5-6=-249/280
WEBS 2-27=-297/295, 3-26=-263/223

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) 15, 21, 20, 19, 18 except (jt=lb) 1=196, 27=271, 26=204, 25=149, 24=140, 22=125, 16=196.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 30, 2021

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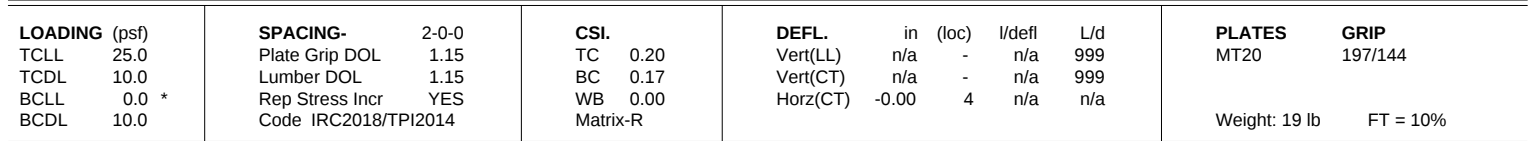
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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. Mon Nov 29 12:03:20 2021 Page 1
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 2-10-8 7-9-0
 2-10-8 4-10-8



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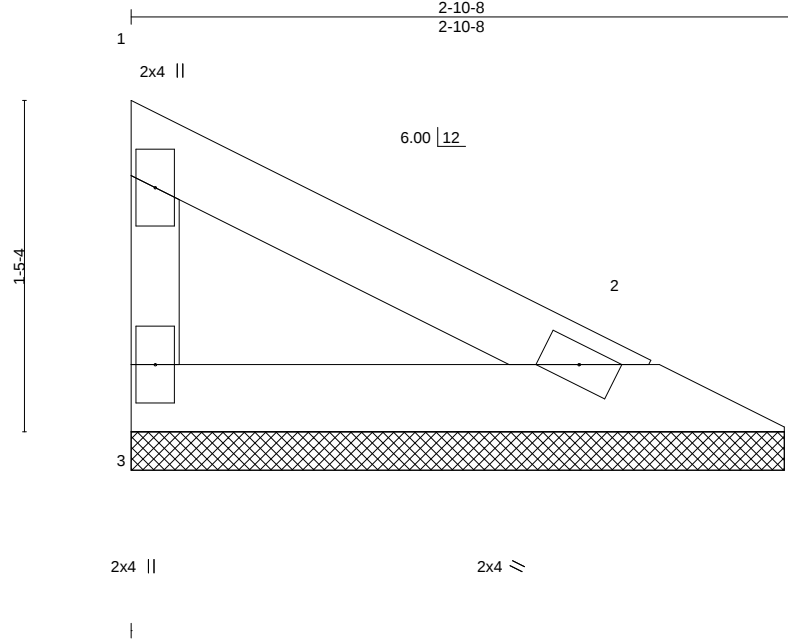


Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	V2A	Valley	1	1		I48989467

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:21 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-HnsxDo3H65HUK7RPkSYFIH6gMLIYDAKiB9f?3cyEKQK



Scale = 1:10.0

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 0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=2-10-0, 2=2-10-0
Max Horz 3=-45(LC 4)
Max Uplift 3=-24(LC 9), 2=-12(LC 9)
Max Grav 3=96(LC 1), 2=96(LC 1)

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	V3	Valley	1	1		I48989468

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:22 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-lzQJQ84vtOPLMH0cl94UqUfr0k5GydasPpPYb2yEKQJ

1-10-8
1-10-8

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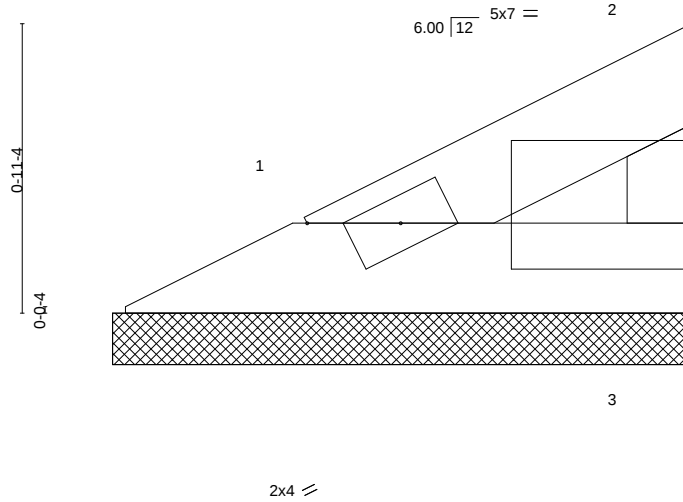


Plate Offsets (X,Y)-- [2:Edge,0-1-13]											
LOADING (psf)		SPACING-		CSI.		DEFL.		in (loc)	l/defl	L/d	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							
										PLATES	GRIP
										MT20	197/144
										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 1-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=1-10-8, 3=1-10-8
Max Horz 1=24(LC 5)
Max Uplift 1=-7(LC 8), 3=-13(LC 8)
Max Grav 1=51(LC 1), 3=51(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; 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
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 30, 2021

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

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

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



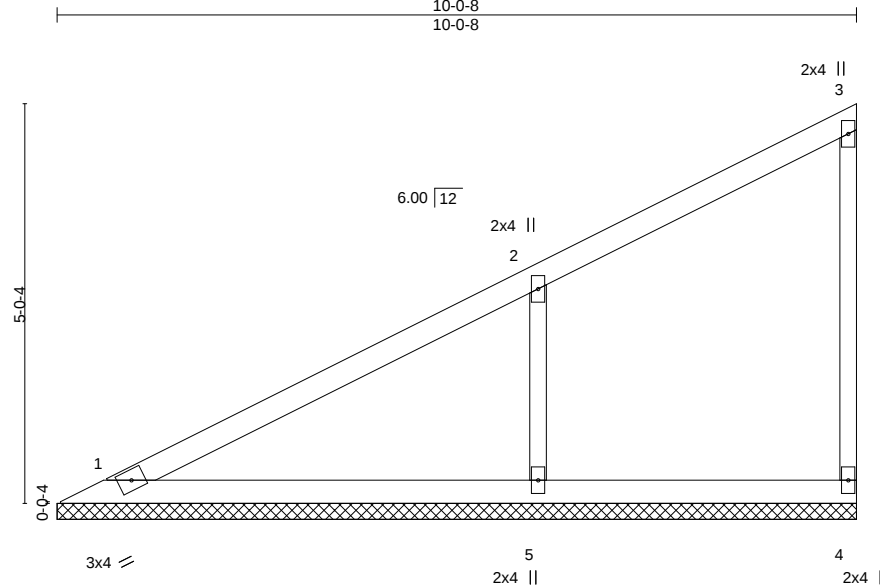
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	V4	Valley	1	1		I48989469

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:22 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-lzQJQ84vtOPLMH0cl94UqUfmWk2Lyc6sPpPYb2yEKQJ



Scale = 1:28.9

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 0.37	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 29 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10-0-8, 4=10-0-8, 5=10-0-8
Max Horz 1=194(LC 5)
Max Uplift 4=-28(LC 5), 5=-160(LC 8)
Max Grav 1=196(LC 1), 4=110(LC 1), 5=532(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-401/212

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=160.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 30, 2021

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

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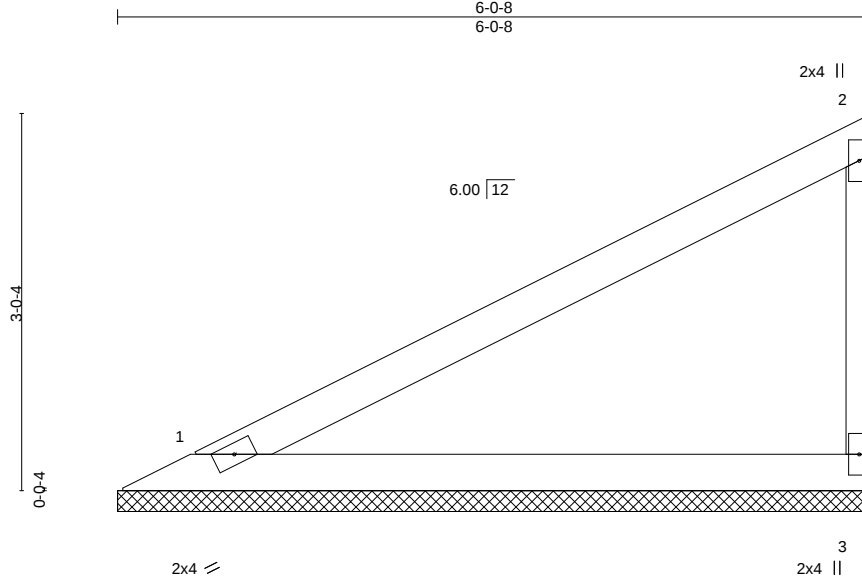
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	V6	Valley	1	1		I48989471

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:24 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-iMY4rq59P0f3bbA_Pa6ywwk3CYiFQX39t7ufgxyEKQH



Scale = 1:18.5

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 0.55	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	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: 16 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-0-8, 3=6-0-8
Max Horz 1=111(LC 5)
Max Uplift 1=-31(LC 8), 3=-59(LC 8)
Max Grav 1=239(LC 1), 3=239(LC 1)

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

NOTES-

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



November 30, 2021

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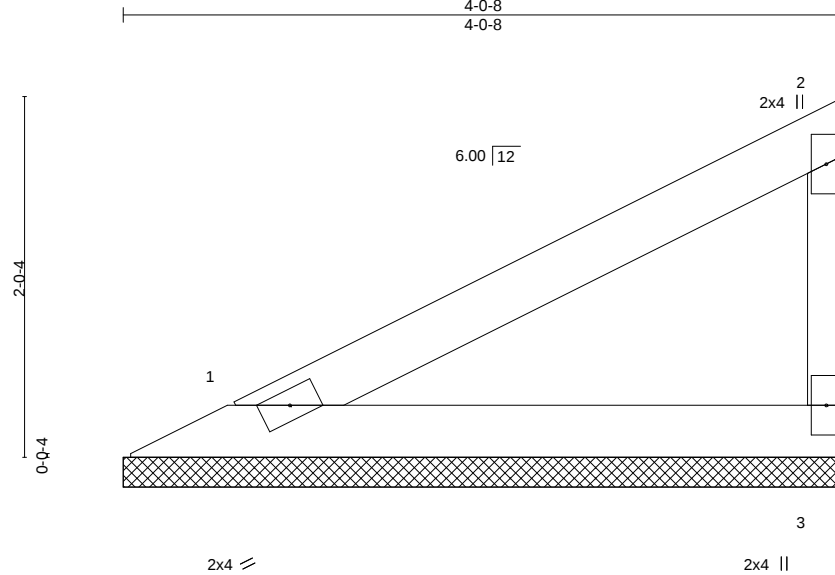
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	V7	Valley	1	1		I48989472

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:24 2021 Page 1

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Scale = 1:12.9

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)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.11	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: 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 4-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-0-8, 3=4-0-8
Max Horz 1=69(LC 5)
Max Uplift 1=-19(LC 8), 3=-36(LC 8)
Max Grav 1=149(LC 1), 3=149(LC 1)

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

NOTES-

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



November 30, 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	Lot 145 HT
HT145	V8	Valley	1	1	

I48989473

Job Reference (optional)

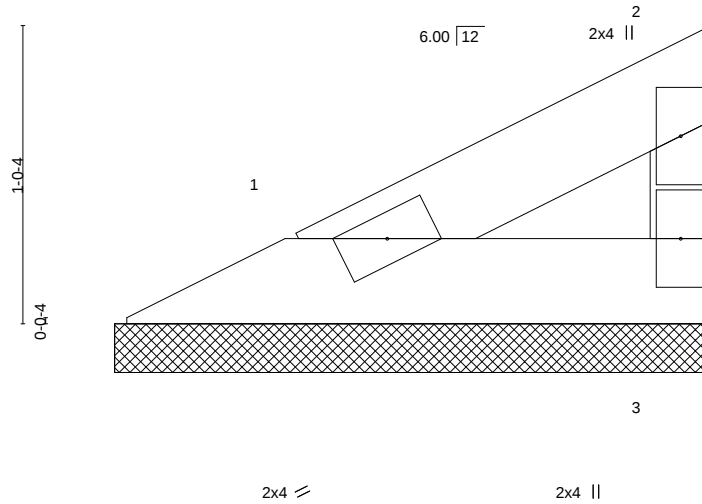
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:25 2021 Page 1

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2-0-8
2-0-8

Scale = 1:7.9



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 0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	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: 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 2-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-0-8, 3=2-0-8
Max Horz 1=27(LC 5)
Max Uplift 1=-8(LC 8), 3=-14(LC 8)
Max Grav 1=59(LC 1), 3=59(LC 1)

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:26 2021 Page 1
 ID:SeH2eHhJU9RSOs?cPHZH9y3WgO-elfqGV7PxdvnruKNX?8Q?KqTZMPKuQZKRKNmkpyEKQF
 5-10-8 6-5-4
 5-10-8 0-6-12

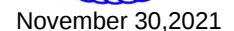
The diagram illustrates a structural assembly for a roof or wall. Key components and dimensions include:

- Roof Slope:** Indicated by a triangle with a vertical side of 2.9.9 and a horizontal side of 2.11.4.
- Truss Members:** Labeled 1 (bottom chord), 2 (top chord), and 3 (vertical member).
- Dimensions:** A horizontal dimension of 6.00' is shown above the truss members.
- Foundation/Support:** The base is labeled 4x4 //
- Vertical Supports:** Two vertical supports are labeled 5 and 4, both specified as 2x4 //.
- Other Labels:** 5x7 = and 2x4 || are also present near the top right corner.

LUMBER-		BRACING-
TOP CHORD	2x4 SPF No.2	TOP CHORD
BOT CHORD	2x4 SPF No.2	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-5, 2-3.
WEBS	2x3 SPF No.2	BOT CHORD
		Rigid ceiling directly applied or 10-0-0 oc bracing.

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCdL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 4=344, 5=159.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



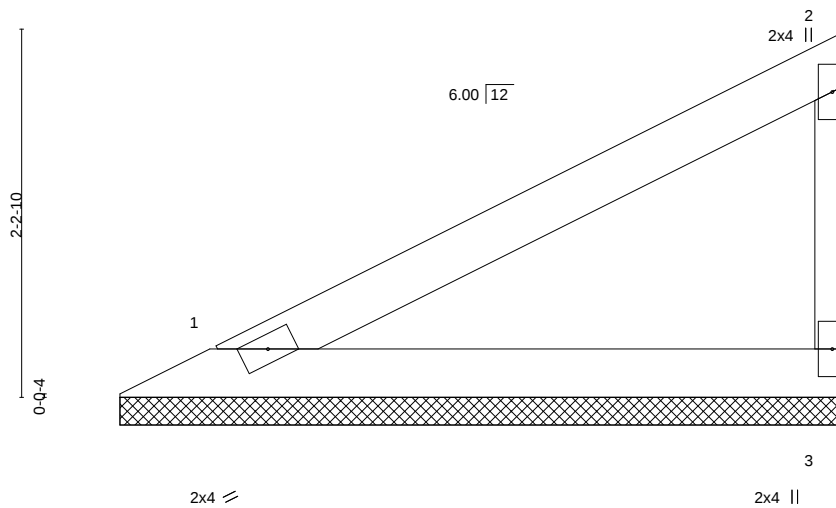
Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	i48989475
HT145	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:15 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-TdVgyl?WWFWLOC_FNBsr20sc8wgfSrqrqoEChsyyEKQQ

4-5-4
4-5-4



Scale = 1:13.9

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 0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=4-4-12, 3=4-4-12
Max Horz 1=77(LC 5)
Max Uplift 1=-21(LC 8), 3=-41(LC 8)
Max Grav 1=167(LC 1), 3=167(LC 1)

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

NOTES-

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



November 30, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	V11	Valley	1	1		I48989476

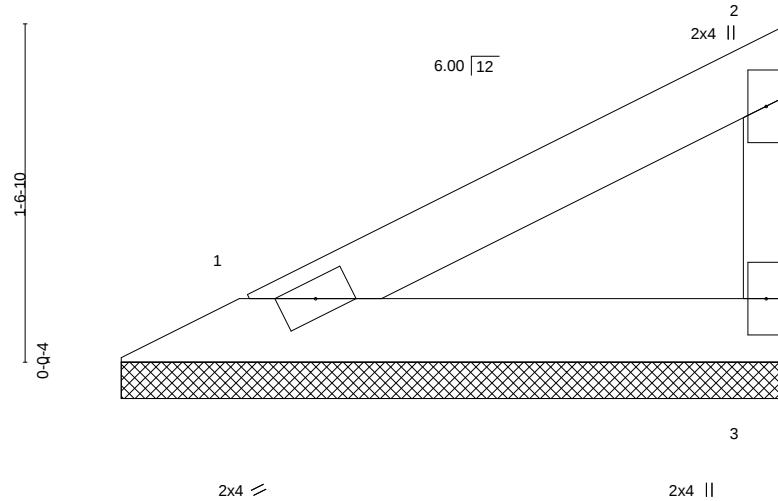
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:16 2021 Page 1

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3-1-4
3-1-4

Scale = 1:10.6



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 0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-0-12, 3=3-0-12
Max Horz 1=50(LC 5)
Max Uplift 1=-14(LC 8), 3=-26(LC 8)
Max Grav 1=107(LC 1), 3=107(LC 1)

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

NOTES-

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



November 30, 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. Mon Nov 29 12:03:18 2021 Page 1
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$$\begin{array}{r} 3-4-8 \\ \hline 3-4-8 \end{array}$$

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-4-8 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 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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 5-4-8
 5-4-8

Job	Truss	Truss Type	Qty	Ply	Lot 145 HT	
HT145	V15	Valley	1	1		I48989480

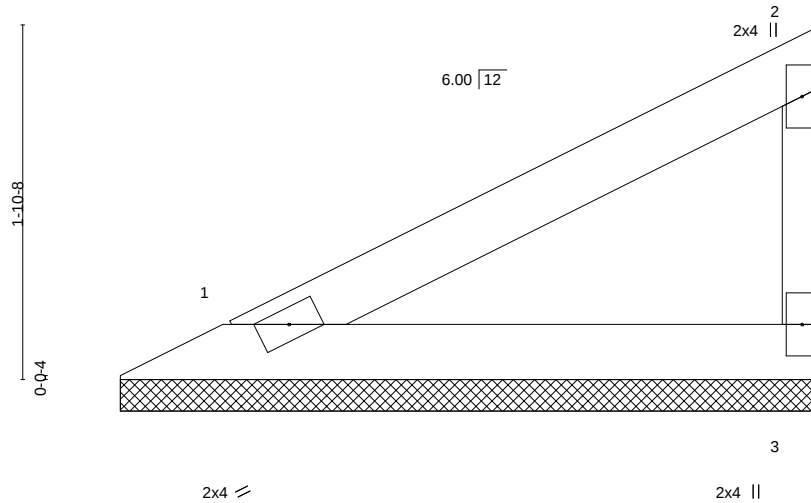
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Nov 29 12:03:20 2021 Page 1

ID:SeH2eHhJU9RSOs?cPHZHy9y3WgO-pblZ?S2fLn8d6zsDAk10l3aUlxObUj4ZyVwSxAyEKQL

3-9-0
3-9-0

Scale = 1:12.2



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 0.16	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 3-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-8-8, 3=3-8-8
Max Horz 1=63(LC 7)
Max Uplift 1=-17(LC 8), 3=-33(LC 8)
Max Grav 1=136(LC 1), 3=136(LC 1)

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

NOTES-

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

