



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/07/2021

RE: 210367
Lot 1 H3

MiTek USA, Inc.

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

Site Information:

Customer: Project Name: 210367
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

Design Code: IRC2018/TPI2014
Wind Code: N/A
Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 61 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45025194	A5	3/31/2021	21	I45025214	G6	3/31/2021
2	I45025195	A6	3/31/2021	22	I45025215	G7	3/31/2021
3	I45025196	A7	3/31/2021	23	I45025216	G8	3/31/2021
4	I45025197	A8	3/31/2021	24	I45025217	G9	3/31/2021
5	I45025198	A9	3/31/2021	25	I45025218	G10	3/31/2021
6	I45025199	D1	3/31/2021	26	I45025219	G11	3/31/2021
7	I45025200	D2	3/31/2021	27	I45025220	G12	3/31/2021
8	I45025201	D3	3/31/2021	28	I45025221	H1	3/31/2021
9	I45025202	D4	3/31/2021	29	I45025222	H2	3/31/2021
10	I45025203	D5	3/31/2021	30	I45025223	H3	3/31/2021
11	I45025204	D6	3/31/2021	31	I45025224	H4	3/31/2021
12	I45025205	D8	3/31/2021	32	I45025225	H5	3/31/2021
13	I45025206	E1	3/31/2021	33	I45025226	H6	3/31/2021
14	I45025207	E2	3/31/2021	34	I45025227	J1	3/31/2021
15	I45025208	E3	3/31/2021	35	I45025228	J2	3/31/2021
16	I45025209	G1	3/31/2021	36	I45025229	J3	3/31/2021
17	I45025210	G2	3/31/2021	37	I45025230	J4	3/31/2021
18	I45025211	G3	3/31/2021	38	I45025231	LAY1A	3/31/2021
19	I45025212	G4	3/31/2021	39	I45025232	LAY2	3/31/2021
20	I45025213	G5	3/31/2021	40	I45025233	LAY3A	3/31/2021

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.
Truss Design Engineer's Name: Garcia, Juan
My license renewal date for the state of Kansas is April 30, 2022.
Kansas COA: E-943

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



March 31, 2021



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No.	Seal#	Truss Name	Date
41	I45025234	LAY4A	3/31/2021
42	I45025235	V1	3/31/2021
43	I45025236	V2A	3/31/2021
44	I45025237	V3A	3/31/2021
45	I45025238	V4A	3/31/2021
46	I45025239	V5	3/31/2021
47	I45025240	V6	3/31/2021
48	I45025241	V7	3/31/2021
49	I45025242	V8	3/31/2021
50	I45025243	V9	3/31/2021
51	I45025244	V10	3/31/2021
52	I45025245	V11	3/31/2021
53	I45025246	V12	3/31/2021
54	I45025247	V13	3/31/2021
55	I45025248	V14	3/31/2021
56	I45025249	V15	3/31/2021
57	I45025250	V16	3/31/2021
58	I45025251	V17	3/31/2021
59	I45025252	V18	3/31/2021
60	I45025253	V19	3/31/2021
61	I45025254	V20	3/31/2021



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Roof Load: 45.0 psf

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Wind Speed: 115 mph
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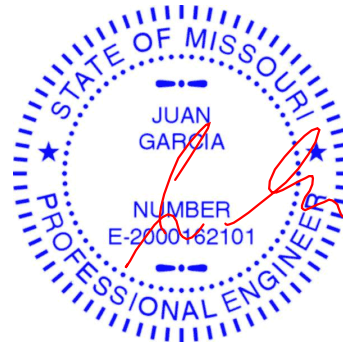
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MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: 001193

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60	I45025253	V19	3/31/2021
61	I45025254	V20	3/31/2021

Job 210367	Truss A5	Truss Type HALF HIP GIRDER	Qty 1	Ply 2	Lot 1 H3	i45025194
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Wheeler Lumber, Waverly, KS 66871, Mitek

8.430 e Nov 30 2020 MiTek Industries, Inc. Wed Mar 3 10:30:23 2021 Page 1
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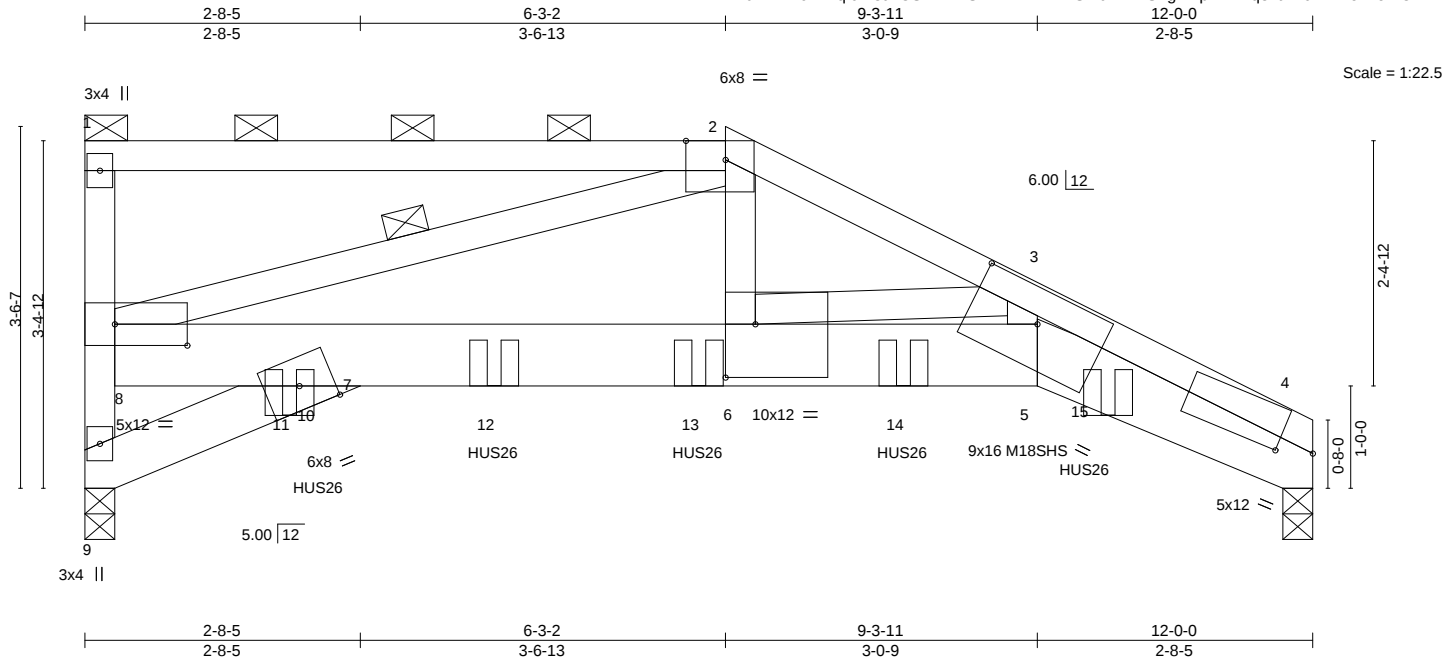


Plate Offsets (X,Y)-- [2:0-4-10,Edge], [4:0-4-3,0-1-5], [5:0-8-0,0-4-0], [6:0-3-8,0-6-4], [8:0-8-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	-0.13	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.22	5-6	>626	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.60	Horz(CT)	0.18	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	5-6	>999	240		
									Weight: 147 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-4: 2x4 SPF 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2. [PSA]
BOT CHORD 2x8 SP DSS *Except* 7-9: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 2-8

REACTIONS. (lb/size) 9=3569/0-3-8, 4=3569/0-3-8
Max Horz 9=-125(LC 6)
Max Uplift 9=-269(LC 4), 4=-384(LC 9)
Max Grav 9=3608(LC 2), 4=3569(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-3220/243, 1-2=-420/66, 2-3=-7544/521, 3-4=-11366/1119
BOT CHORD 7-10=-39/605, 8-11=-497/6289, 7-11=-497/6289, 7-12=-430/6486, 12-13=-430/6486, 6-13=-430/6486, 6-14=-811/8789, 5-14=-812/8795, 5-15=-995/10318, 4-15=-932/9849
WEBS 2-8=-6393/458, 2-6=-277/4874, 3-6=-2062/453, 3-5=-417/3334

NOTES-

- 1) N/A
- 2) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-2-0 oc, 2x8 - 4 rows staggered at 0-2-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 3) 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.
- 4) Unbalanced roof live loads have been considered for this design.
- 5) Wind: ASCE 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
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are MT20 plates unless otherwise indicated.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Bearing at joint(s) 9, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 9 and 384 lb uplift at joint 4.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2



March 3, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3
210367	A5	HALF HIP GIRDER	1	2	I45025194

Wheeler Lumber, Waverly, KS 66871, Mitek

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- NOTES-**
- 14) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent at 2-0-0 from the left end to connect truss(es) to back face of bottom chord.
 - 15) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-0-0 from the left end to 10-0-0 to connect truss(es) to back face of bottom chord.
 - 16) Fill all nail holes where hanger is in contact with lumber.

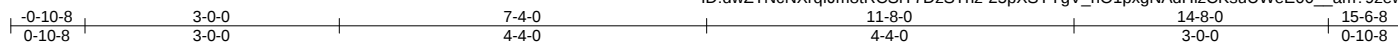
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 7-9=-20, 5-7=-20, 4-5=-20
 - Concentrated Loads (lb)
 - Vert: 10=-1217(B) 12=-1217(B) 13=-1217(B) 14=-1217(B) 15=-1217(B)

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025195
210367	A6	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:18 2021 Page 1

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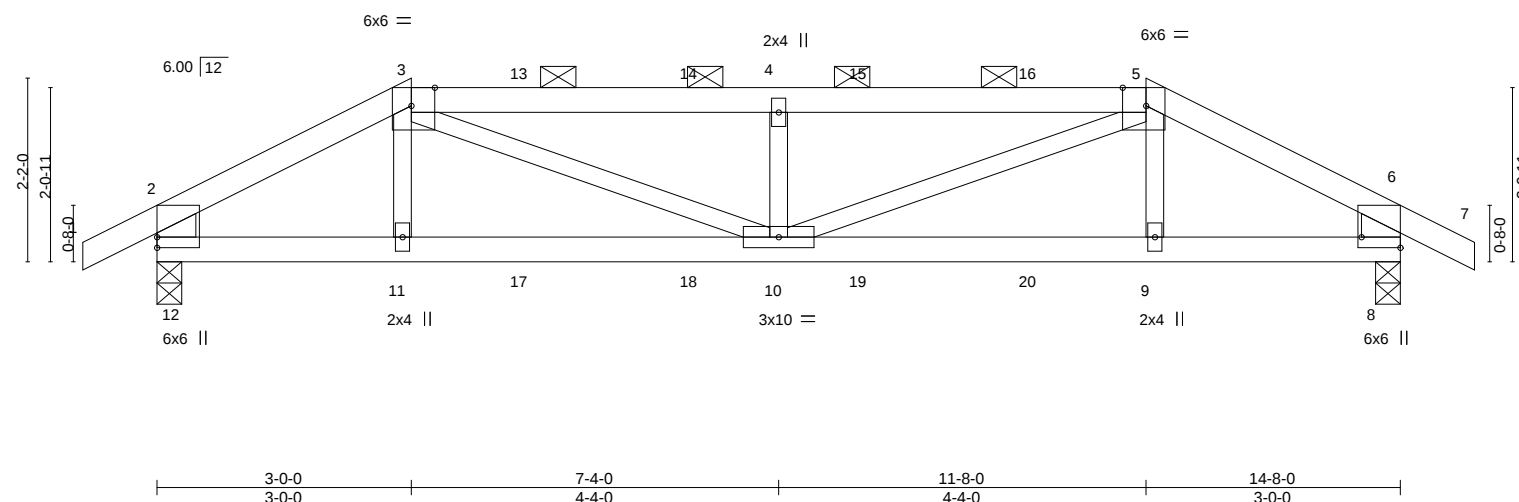


Plate Offsets (X,Y)-- [3:0-3-5,Edge], [5:0-3-5,Edge], [8:Edge,0-5-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.07 10 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.13 10-11 >999 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.26	Horz(CT)	0.02 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 10 >999 240	Weight: 49 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,6-8: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-9-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-2 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 12=0-3-8, 8=0-3-8
Max Horz 12=42(LC 7)
Max Uplift 12=-212(LC 8), 8=-212(LC 9)
Max Grav 12=784(LC 1), 8=784(LC 1)

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

TOP CHORD 2-3=-1026/306, 3-4=-1540/458, 4-5=-1540/458, 5-6=-1026/306, 2-12=-682/203, 6-8=-682/203
BOT CHORD 11-12=-254/847, 10-11=-259/847, 9-10=-244/847, 8-9=-239/847
WEBS 3-10=-208/760, 4-10=-431/212, 5-10=-209/760

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) 12=212, 8=212.
- This truss 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) 85 lb down and 145 lb up at 3-0-0, 70 lb down and 53 lb up at 4-4-0, 70 lb down and 53 lb up at 6-4-0, 70 lb down and 53 lb up at 8-4-0, and 70 lb down and 53 lb up at 10-4-0, and 85 lb down and 145 lb up at 11-8-0 on top chord, and 30 lb down at 3-0-0, 18 lb down at 4-4-0, 18 lb down at 6-4-0, 18 lb down at 8-4-0, and 18 lb down at 10-4-0, and 30 lb down at 11-7-4 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



March 3,2021

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



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Job	Truss	Truss Type	Qty	Ply	Lot 1 H3
210367	A6	Hip Girder	1	1	I45025195
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:18 2021 Page 2
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LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-7=-70, 8-12=-20

Concentrated Loads (lb)

Vert: 3=-12(F) 5=-12(F) 11=-10(F) 9=-10(F) 13=-12(F) 14=-12(F) 15=-12(F) 16=-12(F) 17=-10(F) 18=-10(F) 19=-10(F) 20=-10(F)

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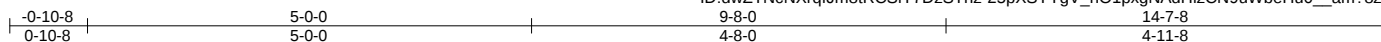
16023 Swingley Ridge Rd
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Job 210367	Truss A7	Truss Type Hip	Qty 1	Ply 1	Lot 1 H3 I45025196
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

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ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-25pXSYYgV_h01pxgNAdHizCN9uWbeHu0__am?8zewlp



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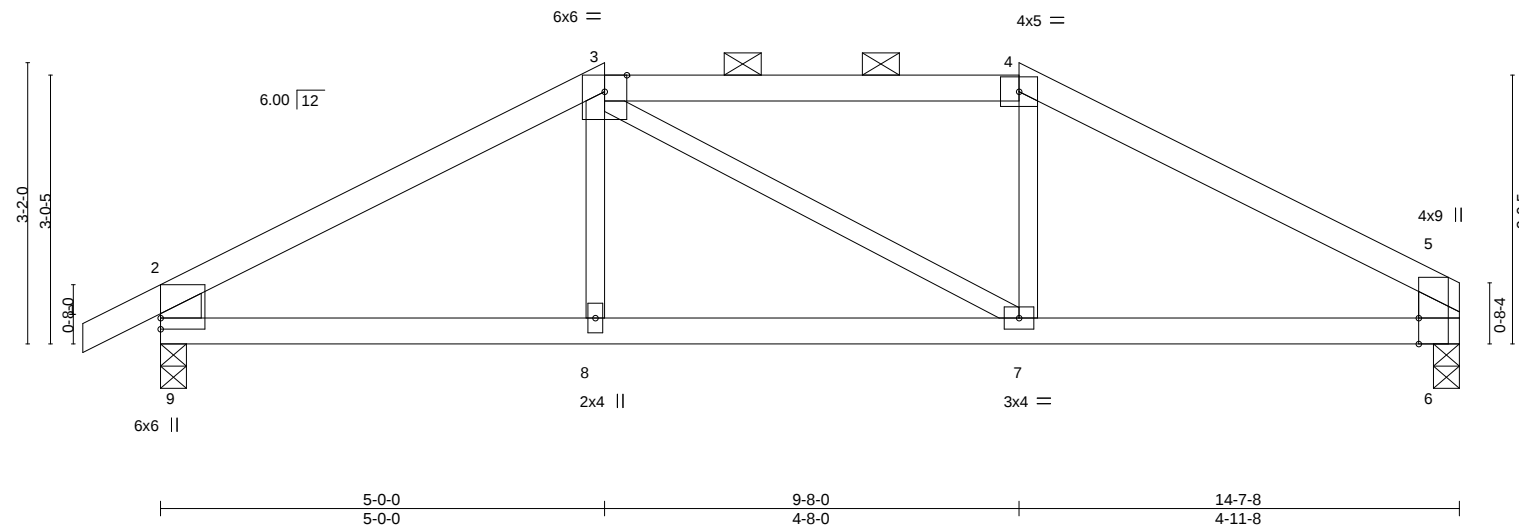


Plate Offsets (X,Y)-- [5:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.06 7-8 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.12 7-8 >999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.02 6 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 7-8 >999	240	Weight: 46 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-9,5-6: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-4-15 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.

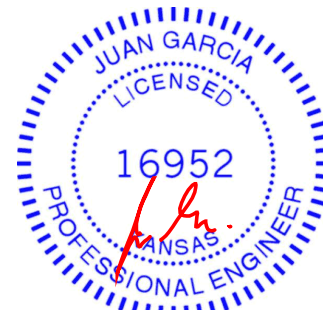
(size) 9=0-3-8, 6=0-3-8
Max Horz 9=59(LC 5)
Max Uplift 9=-86(LC 8), 6=-59(LC 9)
Max Grav 9=718(LC 1), 6=634(LC 1)

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

TOP CHORD 2-3=-912/73, 3-4=-727/95, 4-5=-897/71, 2-9=-651/119, 5-6=-551/90
BOT CHORD 8-9=-63/735, 7-8=-66/732, 6-7=-32/729

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, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 3,2021

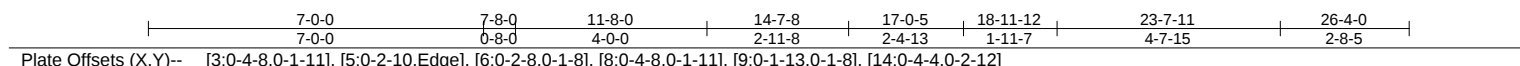
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Scale: 1/4"=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 0.59	Vert(LL) -0.11 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(CT) -0.21 11-12	>665	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.54	Horz(CT) 0.07 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.11 11-12	>999	240	Weight: 94 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
9-11: 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-18: 2x6 SPF No.2

BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 4-3-5 oc purlins, except end verticals, and 2-0-0 oc purlins (5-11-7 max.): 3-4, 5-8.
BOT CHORD	Rigid ceiling directly applied or 5-9-6 oc bracing.

REACTIONS. (size) 18=0-3-8, 14=0-3-8, 9=0-3-8
 Max Horz 18=-62(LC 6)
 Max Uplift 18=-146(LC 29), 14=-277(LC 9), 9=-166(LC 9)
 Max Grav 18=623(LC 1), 14=1458(LC 1), 9=517(LC 1)

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

TOP CHORD 2-3=-647/172, 3-4=-472/195, 4-5=-552/187, 5-6=-124/760, 6-7=-806/321, 7-8=-806/321,
8-9=-1804/557, 2-18=-569/194

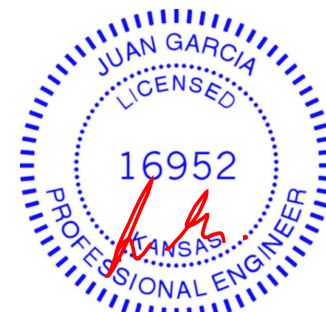
BOT CHORD 17-18=-115/479, 16-17=-94/448, 14-16=-328/329, 13-14=-864/218, 12-13=-778/193,
11-12=-402/1188, 9-11=-492/1617

WEBS 4-17=-196/326, 5-16=-46/364, 5-14=-1047/153, 14-15=-524/202, 6-15=-588/217,
7-12=-338/184, 8-12=-403/168, 8-11=-141/782, 6-12=-453/1584

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=146, 14=277, 9=166.
- 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.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 71 lb down and 54 lb up at 16-4-0, 71 lb down and 54 lb up at 18-4-0, 71 lb down and 54 lb up at 20-4-0, and 71 lb down and 54 lb up at 22-4-0, and 118 lb down and 146 lb up at 23-4-0 on top chord, and 18 lb down at 16-4-0, 18 lb down at 18-4-0, 18 lb down at 20-4-0, and 18 lb down at 22-4-0, and 30 lb down at 23-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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



March 3, 2021



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3
210367	A8	Roof Special Girder	1	1	I45025197
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

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ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-?UxHtEax1cx6H742VbflnOHgOi9f635JRl3t32zewln

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, 4-5=-70, 5-8=-70, 8-10=-70, 14-18=-20, 13-14=-20, 11-13=-20, 9-11=-20
- Concentrated Loads (lb)
 - Vert: 8=-13(F) 19=-13(F) 20=-13(F) 21=-13(F) 22=-13(F) 23=-10(F) 25=-10(F) 26=-10(F) 27=-10(F) 28=-10(F)



Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025198
210367	A9	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

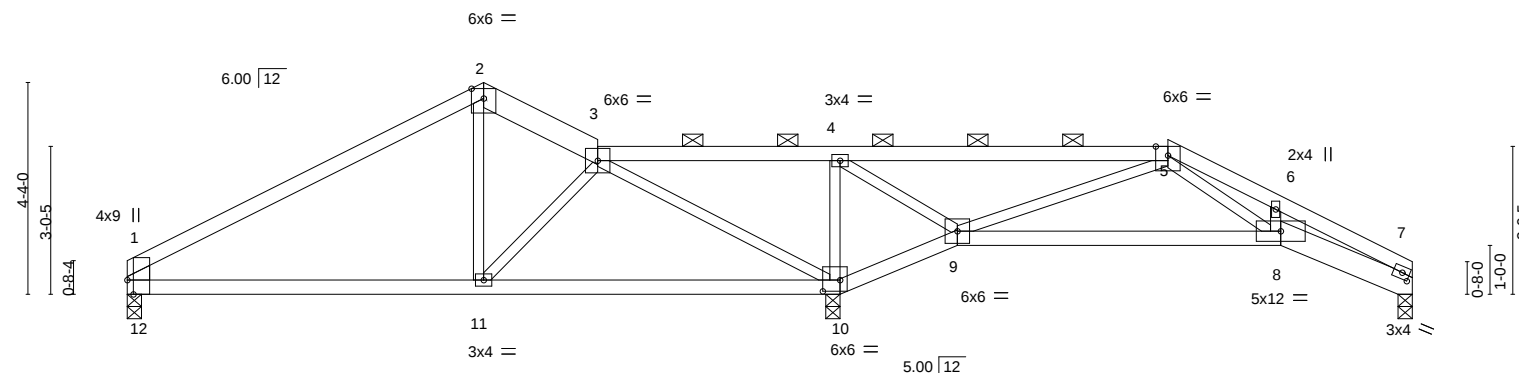
8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:21 2021 Page 1

ID:dwZTNcNXrfJm8tRCSiY7DzSTnz-TgVf5abZov3yvHfF3IA_Jcqq6ZqrSiSgyoQcUzewlm

Job Reference (optional)

7-3-8	9-7-8	14-7-0	16-11-13	21-3-8	23-7-3	26-3-8
7-3-8	2-4-0	4-11-8	2-4-13	4-3-11	2-3-11	2-8-5

Scale = 1:47.1



7-3-8	14-5-4	14-7-0	16-11-13	23-7-3	26-3-8
7-3-8	7-1-12	0-1-12	2-4-13	6-7-6	2-8-5

Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-1-13,0-1-8], [10:0-4-4,0-2-12]

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)	-0.08	8-9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.16	8-9	>852		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.04	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	8-9	>999	Weight: 88 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
7-8: 2x6 SPF No.2
WEBS 2x3 SPF No.2 *Except*
1-12: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-11 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.

REACTIONS.

(size) 7=0-3-8, 12=0-3-8, 10=0-3-8
Max Horz 12=-71(LC 13)
Max Uplift 7=-83(LC 9), 12=-99(LC 8), 10=-202(LC 9)
Max Grav 7=358(LC 1), 12=515(LC 1), 10=1460(LC 1)

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

TOP CHORD 1-2=-583/119, 2-3=-484/154, 3-4=0/576, 4-5=0/373, 5-6=-974/224, 6-7=-1150/183, 1-12=-457/142
BOT CHORD 11-12=-72/425, 10-11=-114/308, 9-10=-659/93, 8-9=-101/423, 7-8=-121/994
WEBS 3-10=-989/73, 4-10=-652/193, 4-9=0/283, 5-9=-844/195, 5-8=-45/579

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) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 12 except (it=lb) 10=202.
- This truss 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.



March 3, 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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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss D1	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 1 H3 Job Reference (optional)	I45025199
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:22 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-xs31lwbBZDBpWQERc0hDspM8wW?xa4UcvcY_8wzewll

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

4x5 =

Scale = 1:42.7

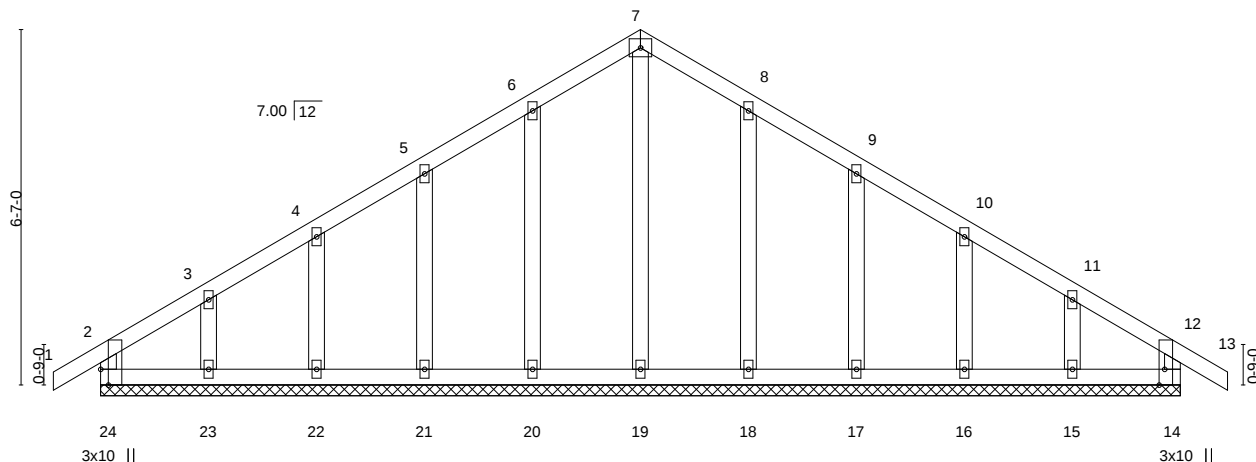


Plate Offsets (X,Y)--	[14:0-3-8,Edge], [24:0-3-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 88 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 20-0-0.

(lb) - Max Horz 24=-186(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 24, 14, 20, 21, 22, 23, 18, 17, 16, 15

Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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

NOTES-

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



March 3, 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 210367	Truss D2	Truss Type Common	Qty 5	Ply 1	Lot 1 H3	I45025200
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Wheeler Lumber, Waverly, KS - 66871,

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ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-P3cQWFcpKXJg8apdAjDSP1v9qvAGJyI7GHXgMzewlk

0-10-8	4-8-4	10-0-0	15-3-12	20-0-0
0-10-8	4-8-4	5-3-12	5-3-12	4-8-4

Scale = 1:41.1

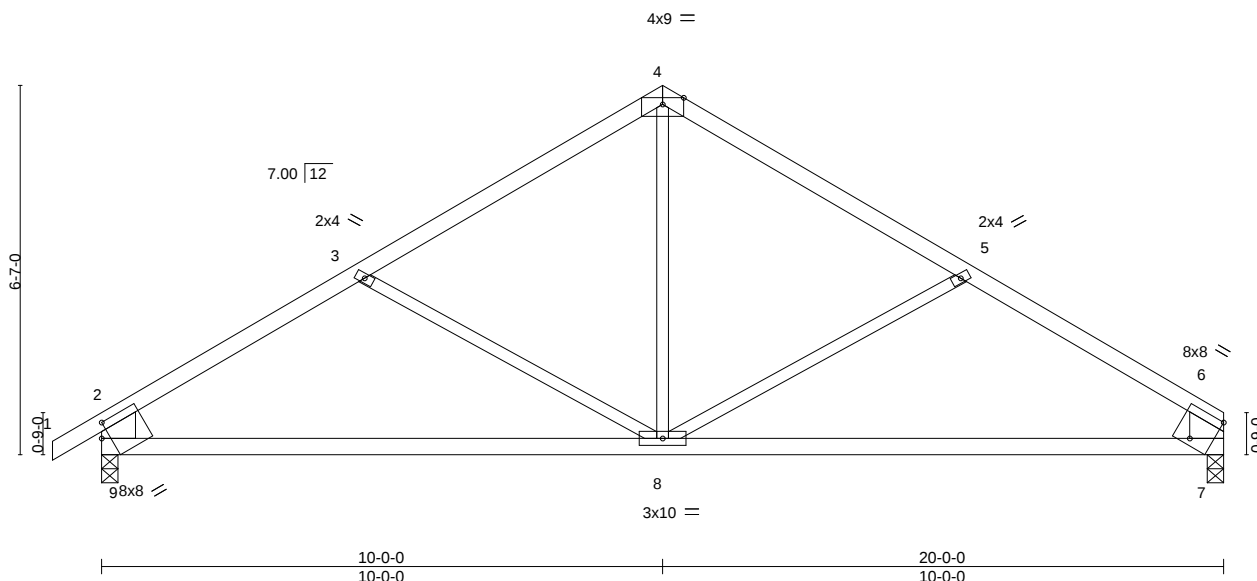


Plate Offsets (X,Y)-- [6:Edge,0-6-10], [9:0-1-11,0-2-15]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.17 8-9 >999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.36 8-9 >649	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.03 7 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 8 >999	240	Weight: 68 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-9,6-7: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 9=0-3-8, 7=0-3-8
Max Horz 9=183(LC 5)
Max Uplift 9=-130(LC 8), 7=-103(LC 9)
Max Grav 9=958(LC 1), 7=870(LC 1)

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

TOP CHORD 2-3=-1177/186, 3-4=-911/140, 4-5=-911/140, 5-6=-1188/189, 2-9=-854/178, 6-7=-762/149
BOT CHORD 8-9=-185/920, 7-8=-111/931
WEBS 4-8=-4/472, 5-8=-292/215, 3-8=-273/210

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=130, 7=103.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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



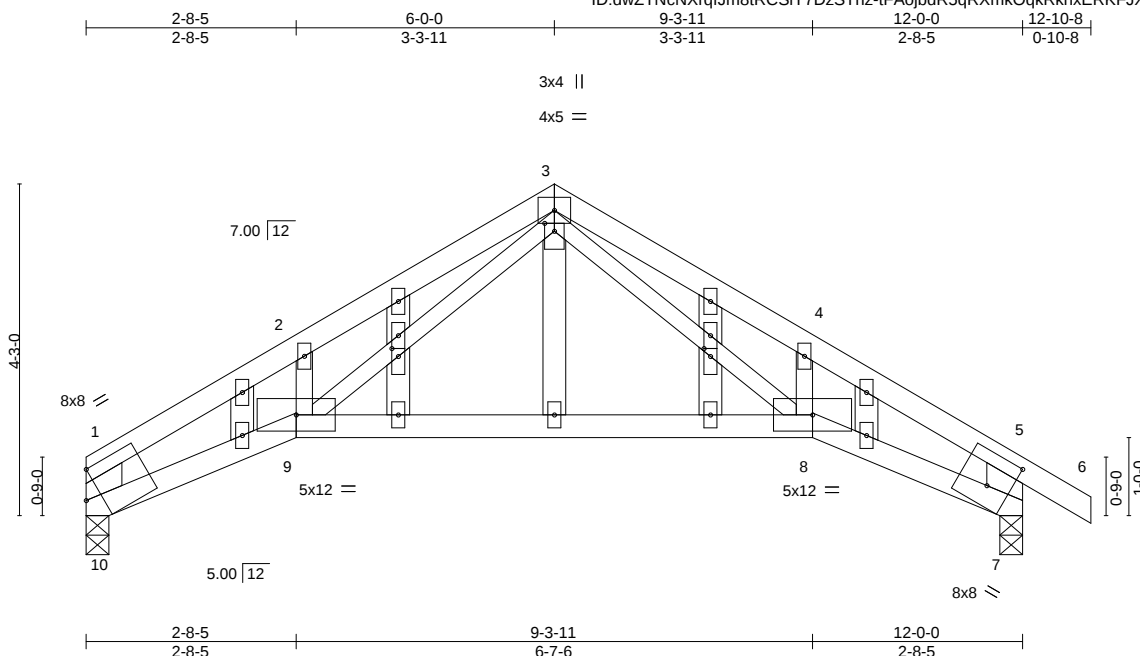
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss D3	Truss Type GABLE	Qty 1	Ply 1	Lot 1 H3	I45025201
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:24 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-tFAojbdR5qRXmkOqkRkxERKFJXb2z1vMw15Cpzewlj



Scale = 1:29.5

Plate Offsets (X,Y)--		[1:Edge,0-4-2], [3:0-1-4,0-1-8], [7:0-3-8,0-4-15], [12:0-1-4,0-1-0], [19:0-1-4,0-1-0]																			
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 0.72		Vert(LL)		-0.12		8-9		>999		360		MT20		197/144	
TCDL	10.0	Lumber DOL		1.15		BC 0.67		Vert(CT)		-0.29		8-9		>475		240					
BCLL	0.0 *	Rep Stress Incr		YES		WB 0.16		Horz(CT)		0.14		7		n/a		n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-S		Wind(LL)		0.08		8-9		>999		240		Weight: 49 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-10,5-7: 2x6 SPF No.2
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-14 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

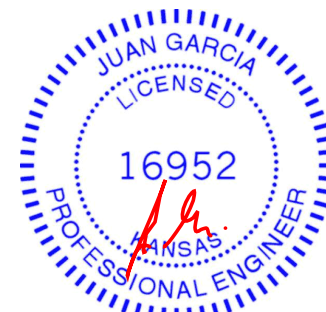
(size) 10=0-3-8, 7=0-3-8
 Max Horz 10=-121(LC 4)
 Max Uplift 10=-60(LC 8), 7=-86(LC 9)
 Max Grav 10=516(LC 1), 7=600(LC 1)

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

TOP CHORD 1-2=-1094/129, 2-3=-976/224, 3-4=-969/175, 4-5=-1111/75, 1-10=-733/100,
 5-7=-847/94
 BOT CHORD 9-10=-117/927, 8-9=-13/494, 7-8=-15/886
 WEBS 3-8=-113/466, 3-9=-146/525

NOTES-

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



March 3, 2021

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



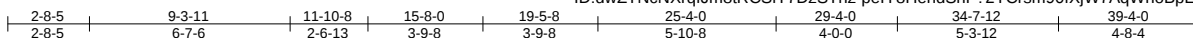
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025202
210367	D4	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:26 2021 Page 1

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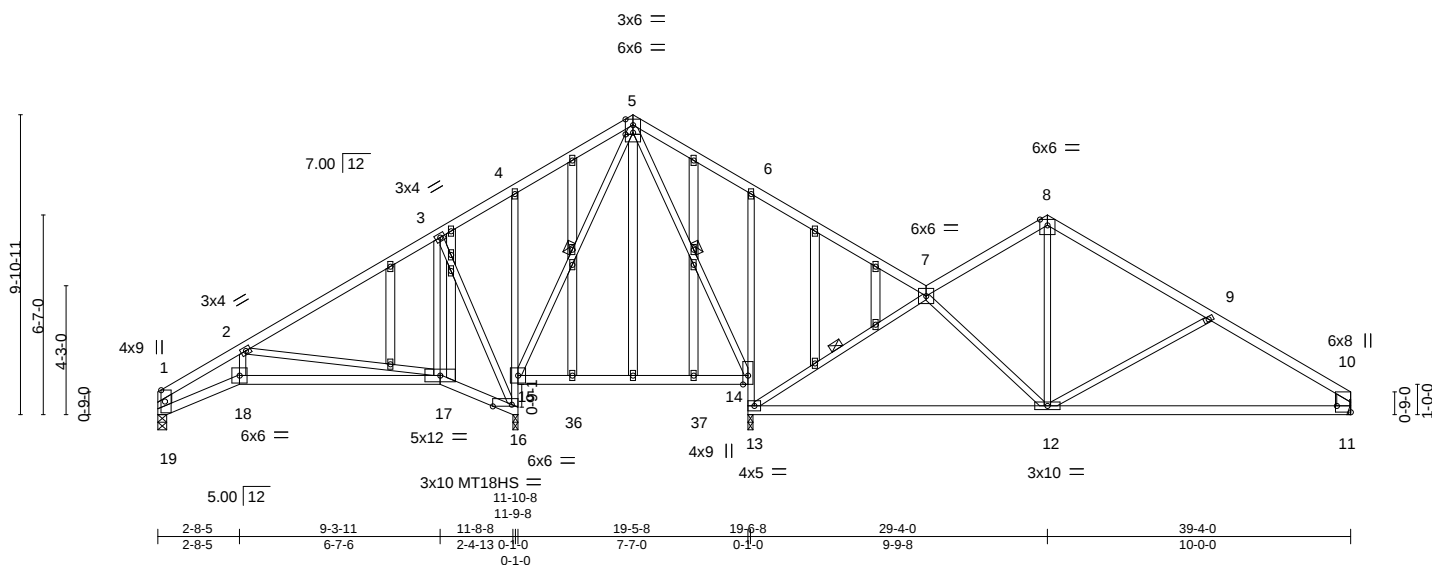


Plate Offsets (X,Y)-- [1:0-4-8,Edge], [5:0-3-0,0-11], [10:Edge,0-5-8], [16:0-7-8,Edge]

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 0.54	Vert(LL)	-0.23 12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.48 12-13	>485	240	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	-0.09 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10 12-13	>999	240	Weight: 203 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-16,6-13: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-19: 2x6 SPF No.2, 10-11: 2x6 SP DSS
 OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-12 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 4-2-11 oc bracing.
 WEBS 1 Row at midpt 5-15, 5-14, 7-13

REACTIONS.

All bearings 0-2-0 except (jt=length) 13=0-2-4 (input: 0-2-0), 16=0-2-4 (input: 0-2-0), 19=0-3-8, 11=Mechanical.
 (lb) - Max Horz 19=-257(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) except 19=-115(LC 9), 13=-246(LC 9), 11=-176(LC 9), 16=-210(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) except 19=399(LC 16), 13=1426(LC 16), 11=943(LC 16), 16=1445(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-841/264, 2-3=-178/334, 3-4=-93/515, 4-5=-58/557, 5-6=-69/359, 6-7=-17/326, 7-8=-948/257, 8-9=-965/244, 9-10=-1239/313, 1-19=-520/156, 10-11=-779/221
 BOT CHORD 18-19=-359/903, 17-18=-341/812, 15-16=-832/43, 13-14=-655/121, 6-14=-416/240, 12-13=-181/748, 11-12=-211/968
 WEBS 2-18=-35/408, 2-17=-877/313, 3-17=-25/379, 3-16=-692/226, 9-12=-297/201, 5-15=-531/31, 7-13=-1137/313, 8-12=-103/563

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- WARNING: Required bearing size at joint(s) 13, 16 greater than input bearing size.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 19, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify compatibility of bearing surface.



March 3, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3
210367	D4	GABLE	1	1	I45025202
Job Reference (optional)					

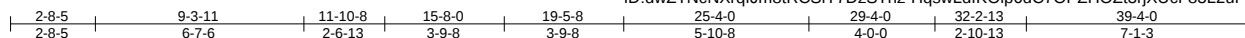
- NOTES-**
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 19, 246 lb uplift at joint 13, 176 lb uplift at joint 11 and 210 lb uplift at joint 16.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025203
210367	D5	Roof Special	4	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:27 2021 Page 1

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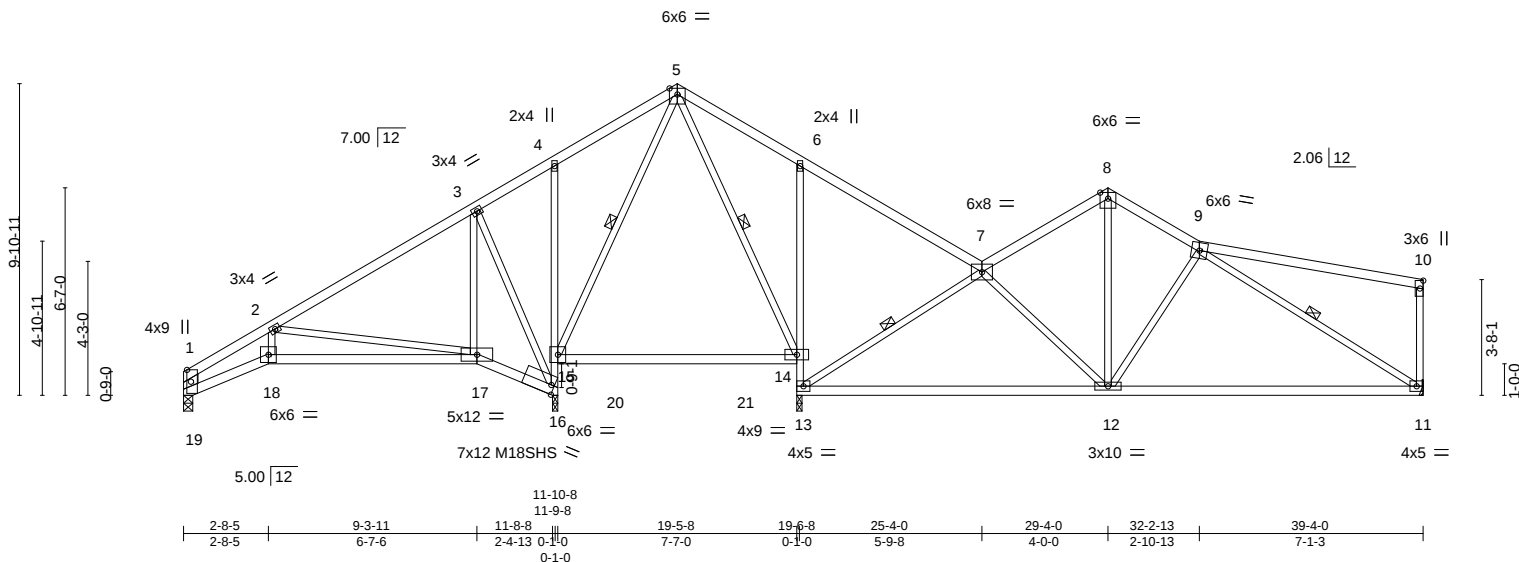


Plate Offsets (X,Y)--		[1:0-4-8,Edge], [16:0-1-4,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.22 11-12	>999	360	MT20	197/144		
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.45 11-12	>530	240	M18SHS	197/144		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.08 16	n/a	n/a				
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 17-18	>999	240	Weight: 167 lb FT = 10%			

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 4-16,6-13: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 1-19: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 4-2-13 oc bracing.
 WEBS 1 Row at midpt 5-15, 5-14, 7-13, 9-11

REACTIONS.

All bearings 0-2-0 except (jt=length) 13=0-2-1 (input: 0-2-0), 16=0-2-5 (input: 0-2-0), 19=0-3-8, 11=Mechanical.
 (lb) - Max Horz 19=255(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 19 except 13=253(LC 9), 11=151(LC 9), 16=223(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) except 19=395(LC 16), 13=1314(LC 16), 11=854(LC 24), 16=1474(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-845/261, 2-3=-168/330, 3-4=-82/510, 4-5=-48/536, 5-6=-103/252, 6-7=-49/266, 7-8=-918/154, 8-9=-904/170, 1-19=-522/154
 BOT CHORD 18-19=-367/904, 17-18=-347/812, 15-16=-861/55, 13-14=-573/163, 6-14=-414/239, 12-13=-172/778, 11-12=-185/823
 WEBS 2-18=-38/408, 2-17=-876/318, 3-17=-26/379, 3-16=-692/227, 5-15=-561/4, 7-13=-1100/247, 9-11=-930/187, 8-12=-72/645, 9-12=-305/163

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.
- WARNING: Required bearing size at joint(s) 13, 16 greater than input bearing size.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 19, 16 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) 19 except (jt=lb) 13=253, 11=151, 16=223.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3,2021

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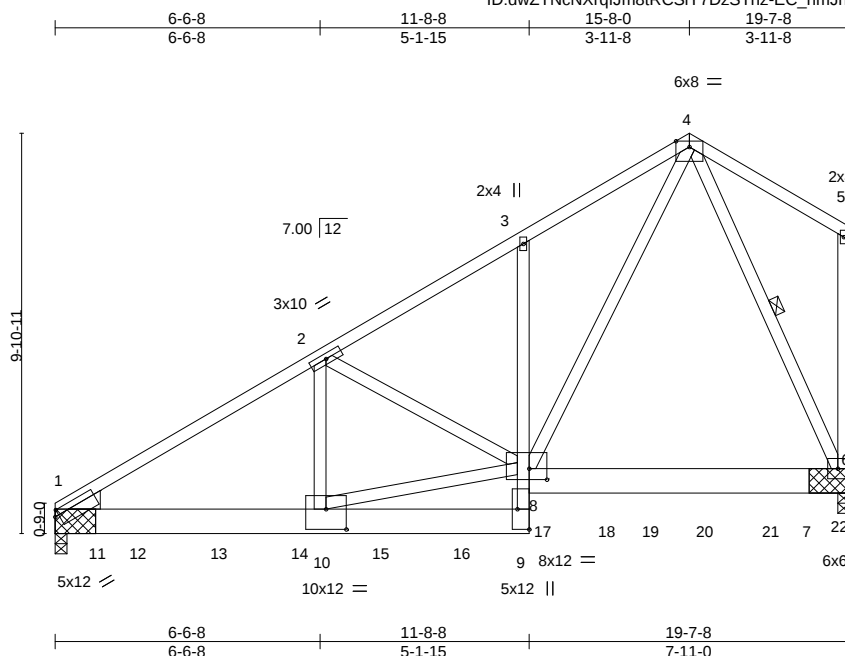
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3
210367	D6	ROOF SPECIAL GIRDER	1	2	I45025204

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:29 2021 Page 1

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Scale = 1:56.9

Plate Offsets (X,Y)-- [1:0-1-3,0-1-11], [8:0-5-4,0-3-4], [9:Edge,0-3-8], [10:0-6-0,0-6-0]												
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	0.68	Vert(LL)	-0.22	6-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.37	6-8	>623	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.10	6-8	>999	240	Weight: 302 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x8 SP DSS *Except*
3-9: 2x4 SPF No.2, 6-8: 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
4-8: 2x4 SPF 2100F 1.8E
WEDGE
Left: 2x6 SP No.2

BRACING-

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

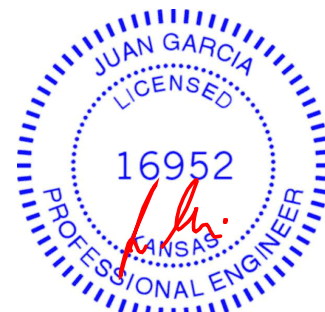
REACTIONS. (size) 1=(0-3-8 + bearing block) (req. 0-4-15), 6=(0-3-8 + bearing block) (req. 0-5-5)
Max Horz 1=328(LC 5)
Max Uplift 1=400(LC 8), 6=-249(LC 8)
Max Grav 1=6333(LC 2), 6=6797(LC 2)

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

TOP CHORD 1-2=-9320/423, 2-3=-6554/288, 3-4=-6586/407
BOT CHORD 1-10=-470/7796, 8-9=0/1070, 3-8=-319/187, 6-8=-127/2022
WEBS 2-10=-174/2772, 8-10=-420/8100, 2-8=-2607/306, 4-8=-420/8264, 4-6=-4741/218

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 0-4-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 2x8 SP DSS bearing block 12" long at jt. 1 attached to each face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners per block. Bearing is assumed to be SPF No.2.
- 2x8 SP 2400F 2.0E bearing block 12" long at jt. 6 attached to each face with 4 rows of 10d (0.131"x3") nails spaced 3" o.c. 16 Total fasteners per block. Bearing is assumed to be SPF No.2.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=400, 6=249.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conforms to standard ANSI/TPI 1.



March 3, 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 1 H3
210367	D6	ROOF SPECIAL GIRDER	1	2	I45025204
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1217 lb down and 157 lb up at 2-0-0, 1268 lb down and 155 lb up at 4-0-0, 1278 lb down and 22 lb up at 6-0-0, 1278 lb down and 21 lb up at 8-0-0, 1278 lb down and 21 lb up at 10-0-0, 1291 lb down and 22 lb up at 12-0-0, 1288 lb down and 22 lb up at 14-0-0, and 1262 lb down and 22 lb up at 16-0-0, and 1293 lb down and 22 lb up at 18-0-0 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, 4-5=-70, 1-9=-20, 6-8=-20

Concentrated Loads (lb)

Vert: 12=-1217(B) 13=-1217(B) 14=-1217(B) 15=-1217(B) 16=-1217(B) 17=-1219(B) 19=-1219(B) 20=-1219(B) 22=-1219(B)

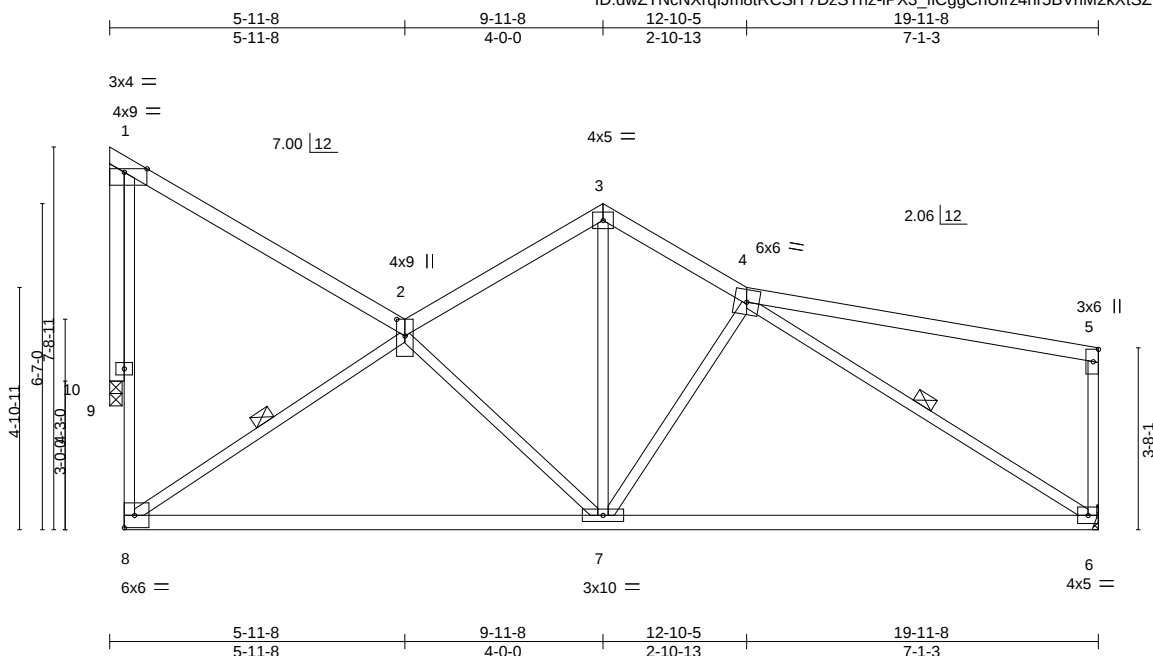
Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025205
210367	D8	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:30 2021 Page 1

ID:dwZTNcNXrfJm8tRCSiY7DzSTnz-iPX3_fiCggChUfrz4hr5BVhM2kXtSZYnksUPQSzewld

Job Reference (optional)



Scale = 1:46.5

Plate Offsets (X,Y)--		[1:0-5-8,Edge], [2:0-4-1,0-2-0]									
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 0.77		Vert(LL)	-0.23	6-7	>999	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.87		Vert(CT)	-0.46	6-7	>513		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.67		Horz(CT)	0.41	6	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	7-8	>999	Weight: 87 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 5-9-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-8, 4-6

REACTIONS.

(size) 6=Mechanical, 10=0-3-0
Max Horz 10=-210(LC 4)
Max Uplift 6=-140(LC 9), 10=-187(LC 9)
Max Grav 6=888(LC 1), 10=864(LC 1)

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

TOP CHORD 8-9=-89/706, 1-9=-89/706, 2-3=-929/135, 3-4=-920/151
BOT CHORD 7-8=-131/931, 6-7=-168/895
WEBS 2-8=-1080/240, 3-7=-53/668, 4-6=-1015/168, 4-7=-300/165, 2-7=-277/71, 1-10=-866/188

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=140, 10=187.
- 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.



March 3, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	145025207
210367	E2	Common	4	1		

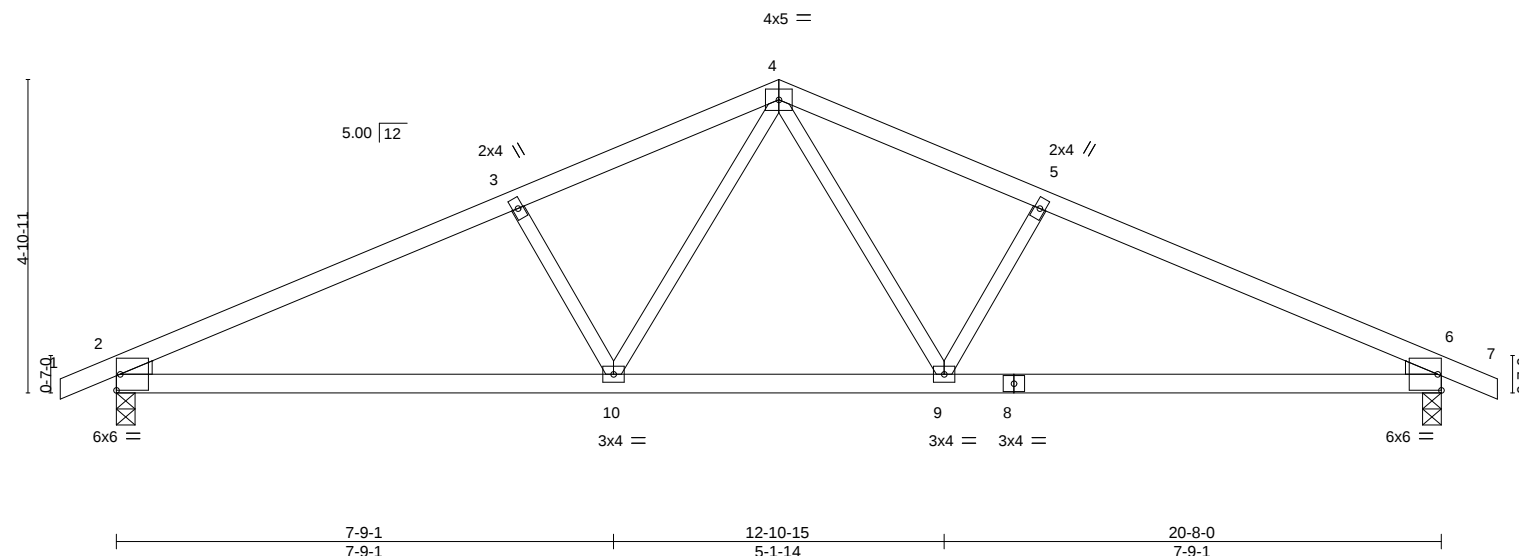
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:32 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSIY7DzSTnz-enfpOKjSCISPjz?MC6tZGwnIPYGWwbr4CAzWULzewlb

0-10-8	6-3-3	10-4-0	14-4-13	20-8-0	21-6-8
0-10-8	6-3-3	4-0-13	4-0-13	6-3-3	0-10-8

Scale = 1:35.9



7-9-1		12-10-15		20-8-0	
7-9-1		5-1-14		7-9-1	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(LL) -0.11 6-9 >999 360	GRIP 197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.17	Vert(CT) -0.25 6-9 >977 240	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Horz(CT) 0.04 6 n/a n/a	
				Wind(LL) 0.06 2-10 >999 240	
				Weight: 65 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

WEDGE

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8

Max Horz 2=-82(LC 9)

Max Uplift 2=-141(LC 8), 6=-141(LC 9)

Max Grav 2=988(LC 1), 6=988(LC 1)

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

TOP CHORD 2-3=-1643/210, 3-4=-1437/214, 4-5=-1437/214, 5-6=-1643/211

BOT CHORD 2-10=-199/1413, 9-10=-56/1021, 6-9=-117/1413

WEBS 4-9=-107/507, 5-9=-339/190, 4-10=-107/507, 3-10=-339/190

NOTES-

1) Unbalanced roof live loads have been considered for this design.

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

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

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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=141, 6=141.

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



March 3, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	145025208
210367	E3	COMMON GIRDER	1	3	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:33 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-6_DCGk4zbaGL7aYmqOoo8JvExdFf0DDRqj31nzewla

0-10-8	6-3-3	10-4-0	14-4-13	20-8-0	21-6-8
0-10-8	6-3-3	4-0-13	4-0-13	6-3-3	0-10-8

Scale = 1:35.9

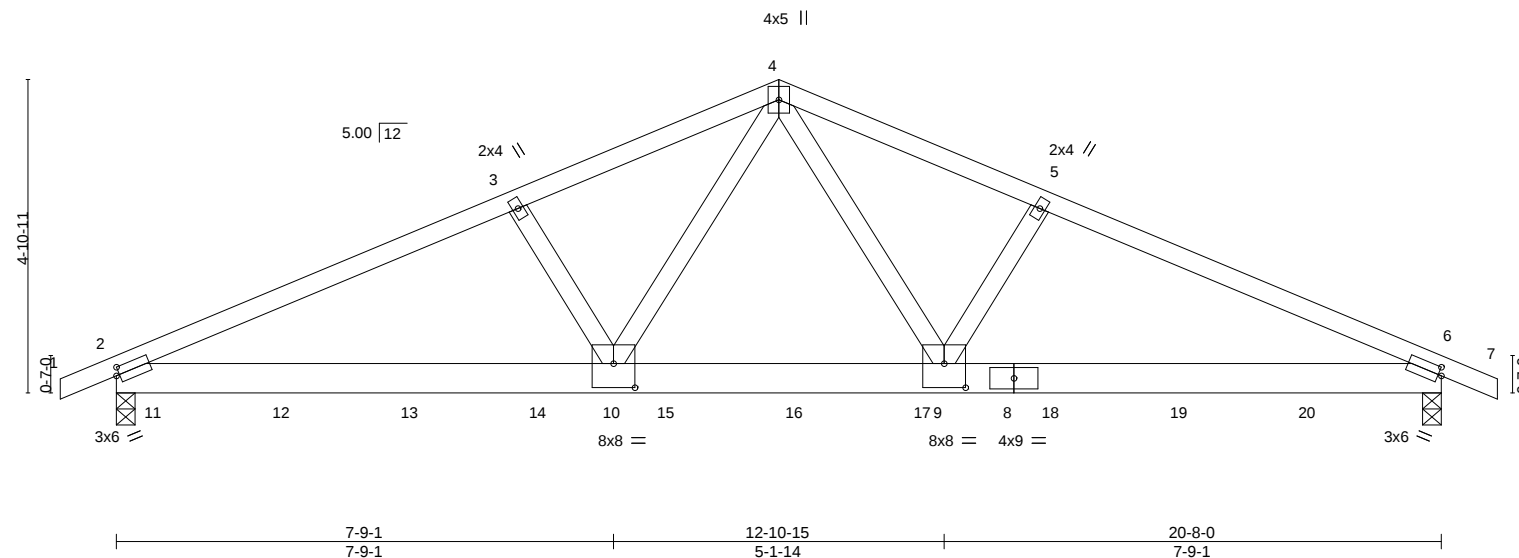


Plate Offsets (X,Y)-- [2:0-0-10,0-1-8], [6:0-0-10,0-1-8], [9:0-4-0,0-4-8], [10:0-4-0,0-4-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.14 6-9 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.26 6-9 >949 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.29	Horz(CT)	0.04 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11 2-10 >999 240	Weight: 282 lb	FT = 10%

LUMBER-

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

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-49(LC 28)
Max Uplift 2=-849(LC 8), 6=-647(LC 9)
Max Grav 2=5446(LC 1), 6=4872(LC 1)

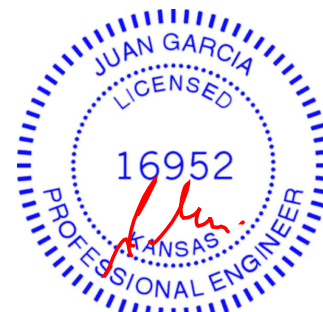
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-8457/1312, 3-4=-8286/1323, 4-5=-8330/1215, 5-6=-8500/1204
BOT CHORD 2-10=-1188/7646, 9-10=-817/5846, 6-9=-1039/7684
WEBS 4-9=-470/3594, 4-10=-670/3569

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=849, 6=647.
- This truss 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) 873 lb down and 154 lb up at 0-7-4, 834 lb down and 171 lb up at 2-7-4, 834 lb down and 171 lb up at 4-7-4, 834 lb down and 171 lb up at 6-7-4, 834 lb down and 171 lb up at 8-7-4, 812 lb down and 196 lb up at 10-7-4, 850 lb down and 123 lb up at 12-7-4, 850 lb down and 123 lb up at 14-7-4, and 850 lb down and 123 lb up at 16-7-4, and 850 lb down and 123 lb up at 18-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



March 3, 2021

Continued on page 2

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3
210367	E3	COMMON GIRDER	1	3	I45025208
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:33 2021 Page 2
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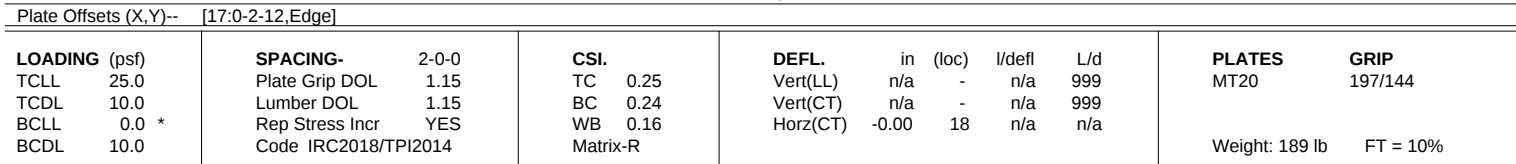
LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-4=-70, 4-7=-70, 2-6=-20
- Concentrated Loads (lb)
 - Vert: 11=-873(F) 12=-819(F) 13=-819(F) 14=-819(F) 15=-819(F) 16=-793(F) 17=-850(F) 18=-850(F) 19=-850(F) 20=-850(F)

Wheeler Lumber, Waverly, KS - 66871

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:35 2021 Page 1

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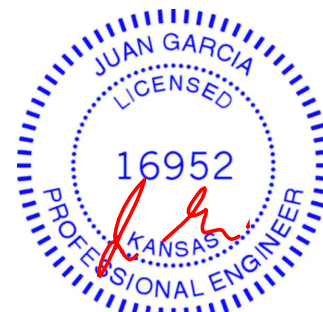
LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 12-22, 11-23, 10-25, 13-21, 14-20
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 27-8-14.
(lb) - Max Horz 33=326(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 18, 22, 23, 25, 26, 27, 28, 29, 30, 31, 21, 20, 19 except
33=226(LC 6), 32=508(LC 5)
Max Grav All reactions 250 lb or less at joint(s) 18, 22, 23, 25, 26, 27, 28, 29, 30, 31, 21, 20, 19 except
33=580(LC 5), 32=277(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-33=-328/124, 1-2=-353/134
WEBS 2-32=-160/258

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18, 22, 23, 25, 26, 27, 28, 29, 30, 31, 21, 20, 19 except (jt=lb) 33=226, 32=508.
- 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.



March 3, 2021



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

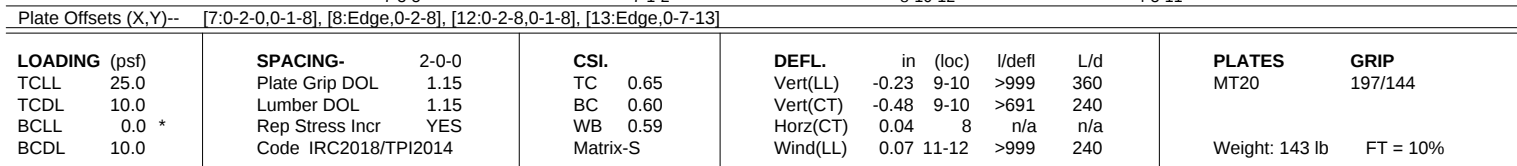
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:39 2021 Page 1
ID:dwZTNcNXrnfJm8tRCSiY7DzSTnz-x8aTskorZRKP321i64VC2PZveMfA3e86pI9NERzewl



LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-11,5-9,1-13: 2x4 SPF No.2

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

REACTIONS. (size) 13=Mechanical, 8=Mechanical
 Max Horz 13=316(LC 7)
 Max Uplift 13=-173(LC 8), 8=-137(LC 8)
 Max Grav 13=1237(LC 1), 8=1237(LC 1)

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

TOP CHORD 1-2=-1927/269, 2-4=-1361/240, 4-5=-1310/367, 5-6=-635/202, 6-7=-574/144,
1-13=-1168/209, 7-8=-1240/145

BOT CHORD 12-13=-300/384, 11-12=-311/1633, 4-11=-430/238

WEBS 2-11=-617/212, 9-11=-103/524, 5-11=-281/1017, 5-9=-479/101, 6-9=-364/214,
1-12=-83/1294, 7-9=-83/1039

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=173, 8=137.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025211
210367	G3	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:40 2021 Page 1

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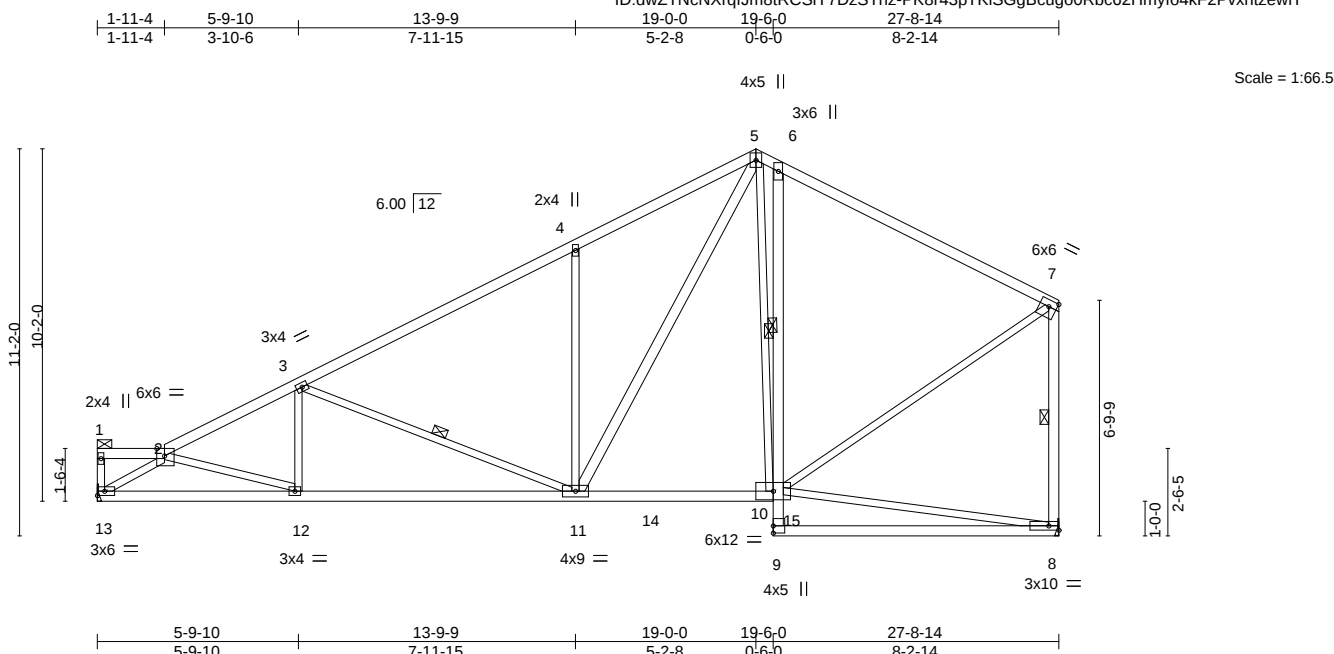


Plate Offsets (X,Y)--		[2:0-2-11,Edge], [7:Edge,0-2-4]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.78		Vert(LL)	-0.15 8-9	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.78		Vert(CT)	-0.31 8-9	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.69		Horz(CT)	0.06 8	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.07 11-12	>999	240	Weight: 140 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-11,7-8: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 13=Mechanical, 8=Mechanical
Max Horz 13=311(LC 7)
Max Uplift 13=-175(LC 8), 8=-135(LC 8)
Max Grav 13=1289(LC 2), 8=1303(LC 2)

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

TOP CHORD 2-3=-2156/293, 3-4=-1555/235, 4-5=-1537/392, 5-6=-1077/311, 6-7=-1005/223, 7-8=-1163/180
BOT CHORD 12-13=-351/1681, 11-12=-349/1940, 10-11=-82/825, 6-10=-785/449
WEBS 2-13=-1966/293, 2-12=0/274, 3-11=-669/216, 4-11=-518/288, 5-11=-315/1091, 5-10=-346/573, 7-10=-86/964

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.
- 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) 13=175, 8=135.
- This truss 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.



March 3, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025212
210367	G4	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:41 2021 Page 1

ID:dwZTNcNXrfJm8tRCSIY7DzSTnz-tWiDHPq653a7ILB5EVXg7qfDyAGuXZ_PG3eUJKzewlS

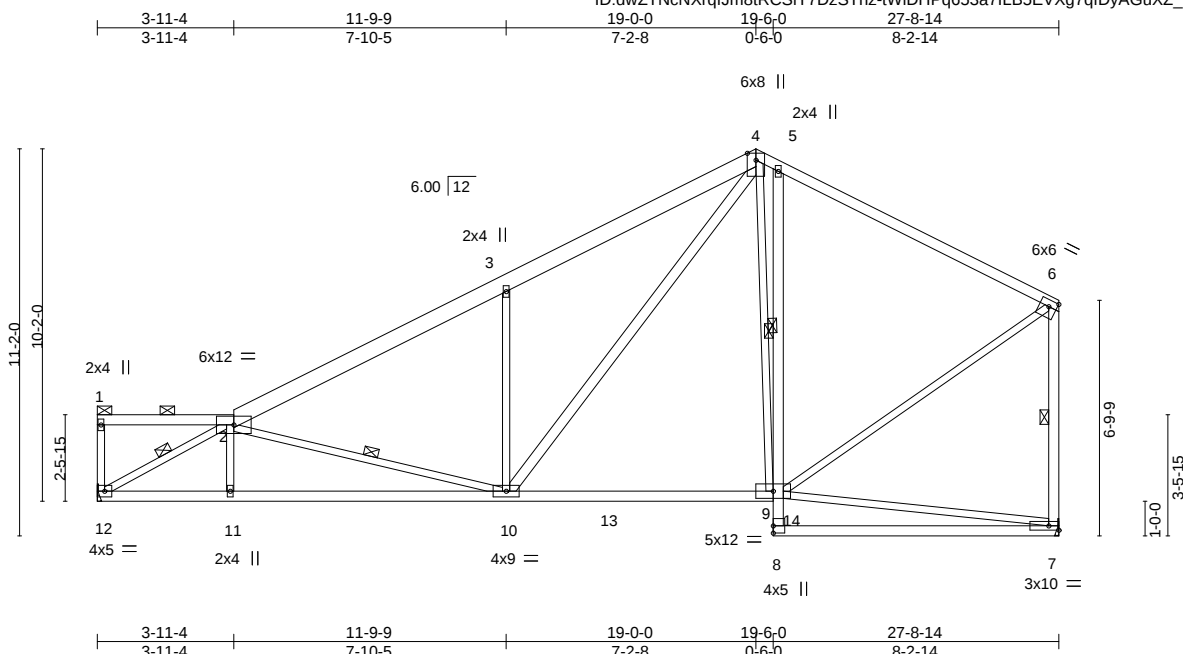


Plate Offsets (X,Y)--	[6:Edge,0-2-4]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.19 9-10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.32 9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.56	Horz(CT)	0.06 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 10-11	>999	240	Weight: 150 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-10,6-7: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 12=Mechanical, 7=Mechanical
Max Horz 12=250(LC 7)
Max Uplift 12=-30(LC 8), 7=-2(LC 8)
Max Grav 12=1298(LC 2), 7=1313(LC 2)

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

TOP CHORD 2-3=-1777/55, 3-4=-1821/188, 4-5=-1046/140, 5-6=-1022/99, 6-7=-1180/46
BOT CHORD 11-12=-60/2043, 10-11=-64/2034, 9-10=-23/848, 5-9=-706/243
WEBS 2-12=-2284/30, 2-10=-486/46, 3-10=-623/208, 4-10=-144/1236, 4-9=-171/520, 6-9=0/998

NOTES-

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



March 3,2021

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

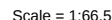
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871

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LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	3-5: 2x6 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except*
	5-11,7-8: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 13=Mechanical
Max Horz 13=250(LC 7)
Max Uplift 8=-1(LC 8), 13=-30(LC 8)
Max Gray 8=1313(LC 2), 13=1298(LC 2)

FORCES.

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

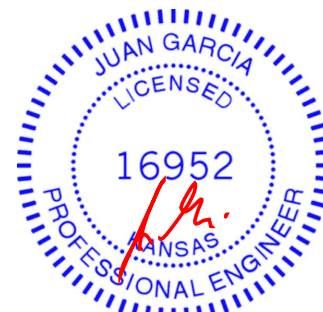
TOP CHORD 2-3=-1867/39, 3-4=-1730/59, 4-5=-1790/180, 5-6=-1038/138, 6-7=-1023/98,
7-8=-1181/45

BOT CHORD 12-13=-160/727, 11-12=-51/1916, 10-11=-23/846, 6-10=-696/239

WEBS 2-12=0/1561, 3-12=-826/70, 3-11=-445/43, 4-11=-538/180, 5-11=-136/1184,
5-10=-172/514, 2-13=-1322/60, 7-10=0/995

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 13.
- 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.



March 3.2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) 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 210367	Truss G6	Truss Type Roof Special	Qty 1	Ply 1	Lot 1 H3 I45025214
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:43 2021 Page 1
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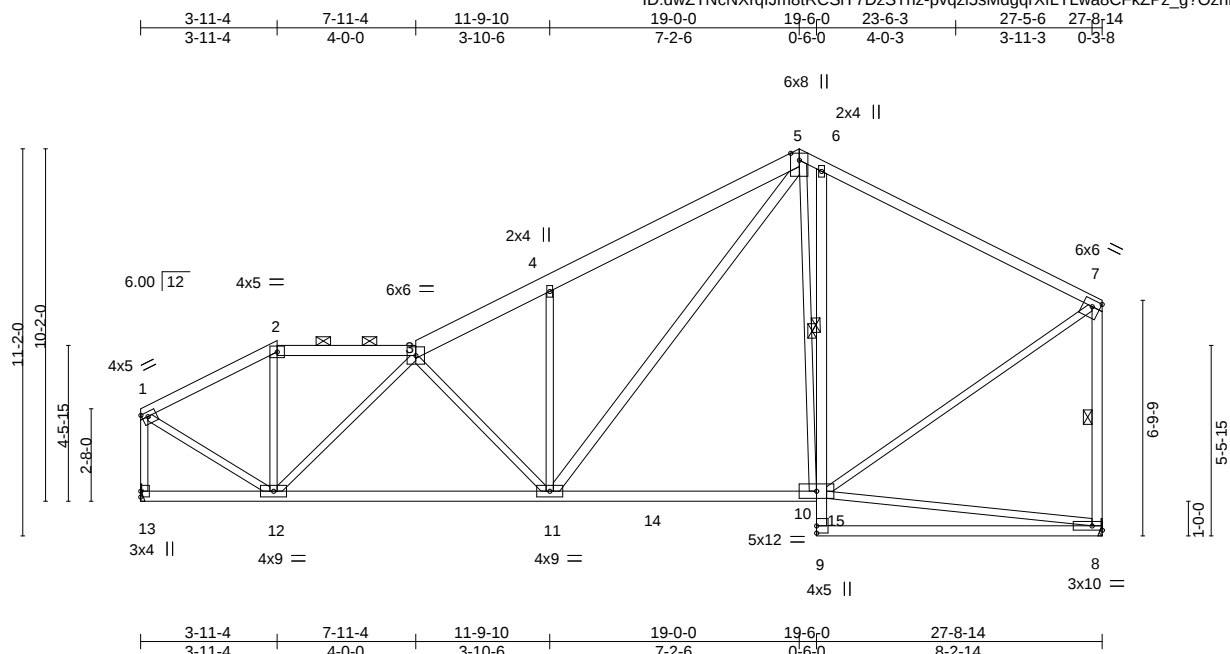


Plate Offsets (X,Y)--		[1:0-2-0,0-1-8], [7:Edge,0-2-4]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.79		Vert(LL)	-0.18 10-11	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.82		Vert(CT)	-0.31 10-11	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.85		Horz(CT)	0.04 8	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 11	>999	240	Weight: 151 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-11,7-8: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 13=Mechanical, 8=Mechanical
Max Horz 13=250(LC 7)
Max Uplift 13=30(LC 8), 8=-1(LC 8)
Max Grav 13=1298(LC 2), 8=1313(LC 2)

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

TOP CHORD 1-2=-1192/33, 2-3=-1028/49, 3-4=-1715/61, 4-5=-1784/173, 5-6=-1032/138,
6-7=-1022/98, 1-13=-1260/39, 7-8=-1180/45
BOT CHORD 11-12=-52/1731, 10-11=-23/843, 6-10=-692/237
WEBS 2-12=0/277, 3-12=-994/30, 3-11=-342/64, 4-11=-470/160, 5-11=-127/1176,
5-10=-187/506, 1-12=0/1214, 7-10=0/990

NOTES-

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



March 3, 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 210367	Truss G7	Truss Type Roof Special	Qty 1	Ply 1	Lot 1 H3 I45025215
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:44 2021 Page 1

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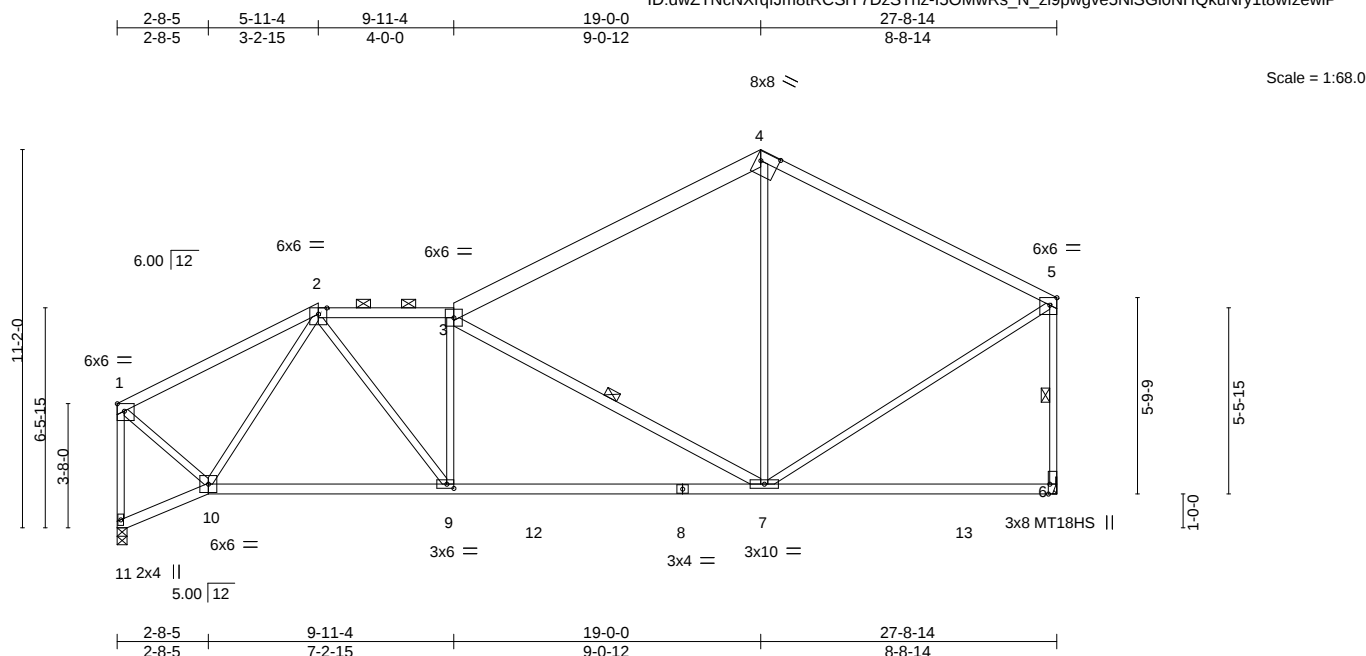


Plate Offsets (X,Y)--	[1:Edge,0-2-11], [4:0-6-4,0-3-4], [5:0-2-8,Edge], [6:0-3-8,Edge], [9:0-2-8,0-1-8]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.93	Vert(LL)	-0.18 6-7	>999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.91	Vert(CT)	-0.32 6-7	>999 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.06 6	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04 9	>999 240
						PLATES GRIP
						MT20 197/144
						MT18HS 197/144
						Weight: 125 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x6 SPF No.2, 4-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-7: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 11=0-3-8, 6=Mechanical
Max Horz 11=244(LC 5)
Max Uplift 11=-29(LC 8), 6=-2(LC 8)
Max Grav 11=1297(LC 2), 6=1326(LC 2)

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

TOP CHORD 1-2=-975/46, 2-3=-1641/70, 3-4=-1048/69, 4-5=-1038/96, 1-11=-1271/53, 5-6=-1170/45
BOT CHORD 9-10=-120/1182, 7-9=-43/1666
WEBS 2-10=-670/42, 2-9=0/845, 3-9=-432/77, 3-7=-952/110, 4-7=0/372, 1-10=0/1059, 5-7=0/982

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss connections.
- Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 3, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025216
210367	G8	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:45 2021 Page 1
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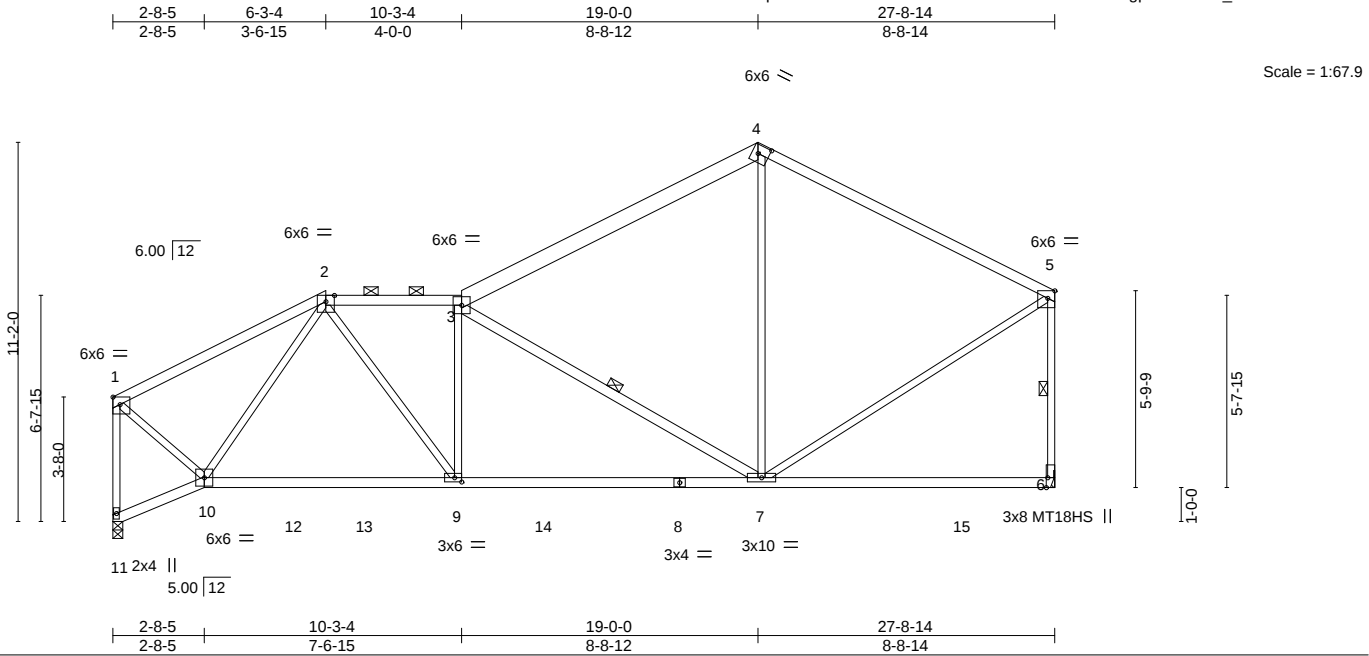


Plate Offsets (X,Y)--		[1:Edge,0-2-11], [4:0-3-14,0-3-0], [5:0-2-8,Edge], [6:0-3-8,Edge], [9:0-2-8,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.19	6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.34	6-7	>977	240	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	9	>999	240	Weight: 125 lb	FT = 10%

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

REACTIONS. (size) 11=0-3-8, 6=Mechanical
Max Horz 11=244(LC 5)
Max Uplift 11=29(LC 8), 6=2(LC 8)
Max Grav 11=1321(LC 2), 6=1334(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1000/46, 2-3=-1637/71, 3-4=-1048/71, 4-5=-1044/96, 1-11=-1305/51, 5-6=-1176/46
BOT CHORD 9-10=-116/1209, 7-9=-40/1659
WEBS 2-10=-665/44, 2-9=0/808, 3-9=-397/71, 3-7=-957/107, 4-7=0/382, 1-10=0/1082, 5-7=0/986

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 3, 2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025217
210367	G9	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:46 2021 Page 1

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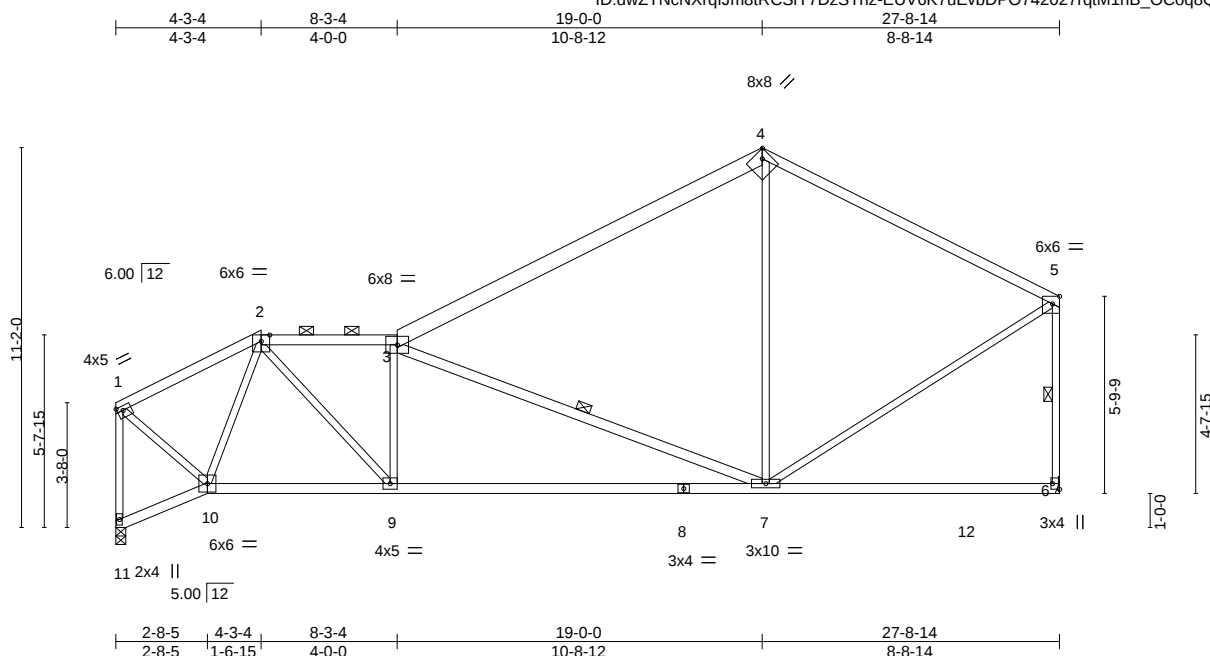


Plate Offsets (X,Y)--		[1:0-2-0,0-1-8], [4:0-2-11,0-2-10], [5:0-2-8,Edge], [6:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97
TCDL 10.0	Lumber DOL	1.15	BC 0.88
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.26 7-9 >999 360
			Vert(CT) -0.56 7-9 >591 240
			Horz(CT) 0.06 6 n/a n/a
			Wind(LL) 0.04 7-9 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 125 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x6 SPF No.2, 4-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
6-8: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
3-7: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 11=0-3-8, 6=Mechanical
Max Horz 11=244(LC 5)
Max Uplift 11=-29(LC 8), 6=-2(LC 8)
Max Grav 11=1275(LC 2), 6=1312(LC 2)

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

TOP CHORD 1-2=-951/44, 2-3=-1754/64, 3-4=-1073/60, 4-5=-1014/93, 1-11=-1230/58, 5-6=-1174/41
BOT CHORD 9-10=-144/1078, 7-9=-58/1795
WEBS 2-10=-685/31, 3-7=-1021/124, 4-7=0/349, 1-10=-16/1072, 5-7=0/990, 2-9=0/1108, 3-9=-604/106

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss connections.
- Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 3, 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 210367	Truss G10	Truss Type Roof Special	Qty 1	Ply 1	Lot 1 H3 I45025218
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:36 2021 Page 1

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6x8 =

Scale = 1:67.4

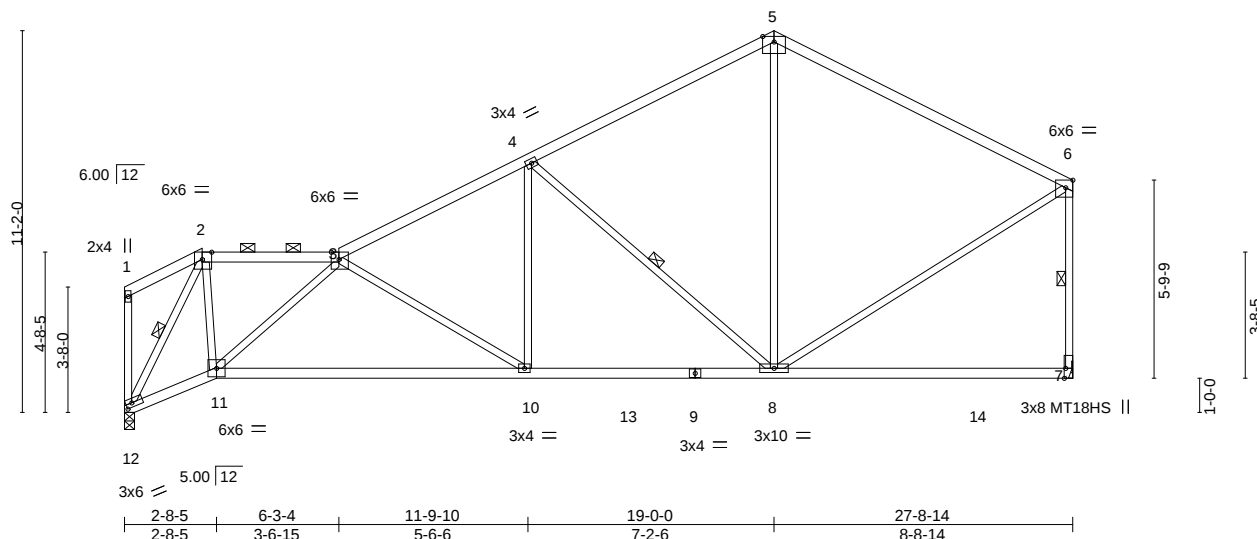


Plate Offsets (X,Y)--		[2:0-3-5,Edge], [3:0-2-11,Edge], [6:0-2-8,Edge], [7:0-3-8,Edge], [12:0-2-1,0-1-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.99	Vert(LL)	-0.22 7-8 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.90	Vert(CT)	-0.46 10-11 >719 240	MT18HS	197/144
BCLL	0.0 *	Rep Stress Incr YES		WB	0.74	Horz(CT)	0.08 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 10 >999 240	Weight: 118 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 12=0-3-8, 7=Mechanical
Max Horz 12=244(LC 5)
Max Uplift 12=-29(LC 8), 7=-2(LC 8)
Max Grav 12=1298(LC 2), 7=1333(LC 2)

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

TOP CHORD 2-3=-935/34, 3-4=-1726/62, 4-5=-1024/85, 5-6=-1036/98, 6-7=-1166/49
BOT CHORD 11-12=-197/932, 10-11=-110/1814, 8-10=-43/1533
WEBS 2-11=0/1366, 3-11=-1176/63, 3-10=-362/84, 4-10=0/508, 4-8=-892/110, 5-8=0/442, 6-8=0/974, 2-12=-1712/42

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 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.



March 3, 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



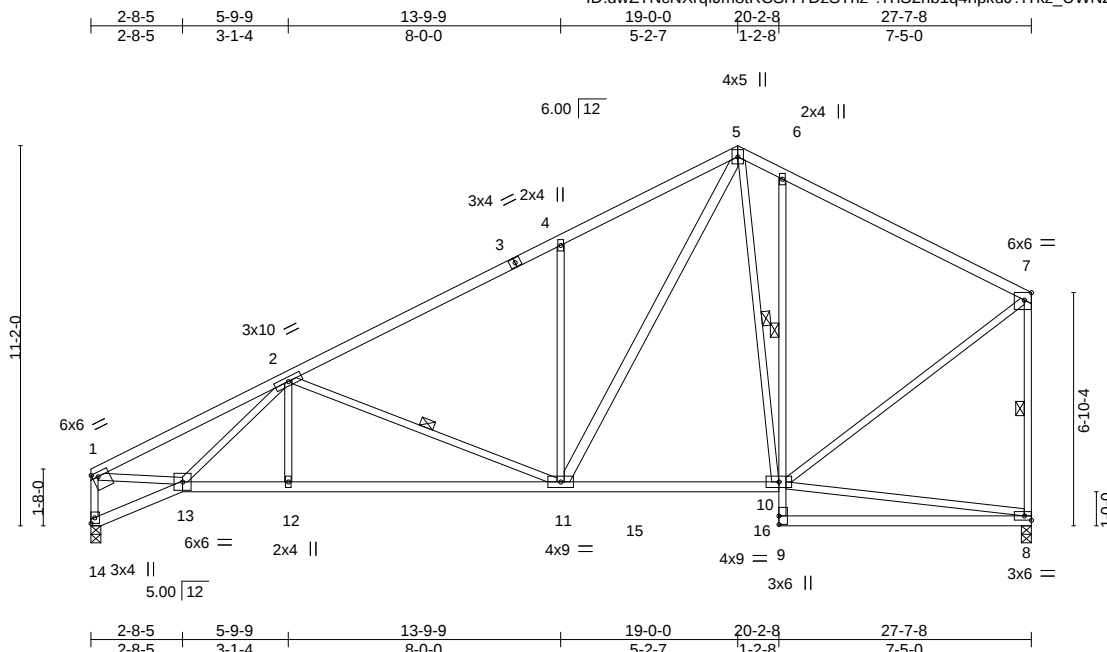
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025219
210367	G11	Roof Special	3	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:37 2021 Page 1

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Scale = 1:67.7

Plate Offsets (X,Y)--	[1:0-2-0,0-1-8], [7:0-2-8,Edge]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.13 11-12	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.27 11-12	>999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.72	Horz(CT)	0.09 8	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 11-12	>999
					L/d	
					360	
					240	
					n/a	
					240	
					Weight: 135 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 6-9: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 5-11: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 14=0-3-8, 8=0-3-8
 Max Horz 14=326(LC 5)
 Max Uplift 14=168(LC 8), 8=142(LC 8)
 Max Grav 14=1288(LC 2), 8=1304(LC 2)

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

TOP CHORD 1-2=-1987/351, 2-4=-1556/248, 4-5=-1540/404, 5-6=-985/272, 6-7=-950/218,
 1-14=-1248/247, 7-8=-1181/182
 BOT CHORD 13-14=-347/170, 12-13=-403/1972, 11-12=-403/1972, 10-11=-95/819, 6-10=-572/331
 WEBS 2-13=-372/53, 2-12=0/268, 2-11=-682/262, 4-11=-515/286, 5-11=-326/1117,
 5-10=-214/323, 1-13=-251/1694, 7-10=-90/991

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 14 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) 14=168, 8=142.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025220
210367	G12	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:38 2021 Page 1

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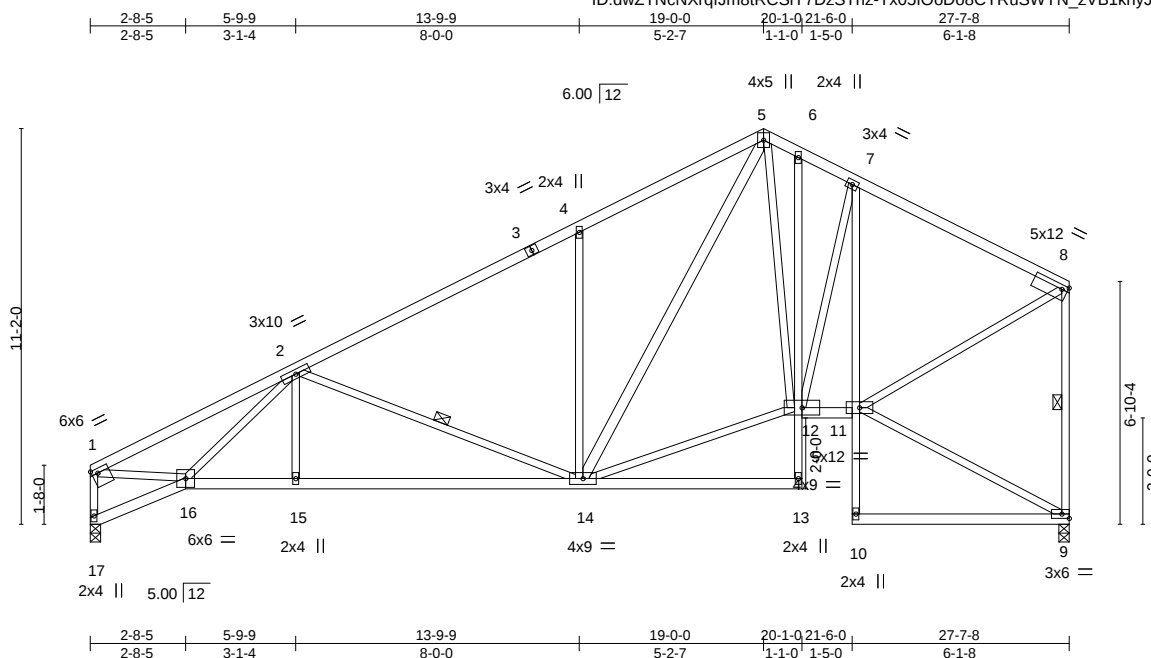


Plate Offsets (X,Y)--		[1:0-2-0,0-1-8], [8:0-2-0,0-1-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.65		Vert(LL) -0.11 14-15 >999 360		MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.62		Vert(CT) -0.25 14-15 >999 240			
BCLL 0.0 *		Rep Stress Incr YES		WB 0.70		Horz(CT) 0.11 9 n/a n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.07 14-15 >999 240		Weight: 148 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 6-13,7-10: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 5-14: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 17=0-3-8, 9=0-3-8
 Max Horz 17=326(LC 5)
 Max Uplift 17=168(LC 8), 9=142(LC 8)
 Max Grav 17=1234(LC 1), 9=1234(LC 1)

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

TOP CHORD 1-2=-1883/352, 2-4=-1488/248, 4-5=-1459/399, 5-6=-982/243, 6-7=-1112/250,
 7-8=-1073/198, 1-17=-1208/248, 8-9=-1174/178
 BOT CHORD 16-17=-347/170, 15-16=-402/1831, 14-15=-402/1831, 11-12=-146/905, 7-11=-463/107
 WEBS 2-16=-341/51, 2-15=0/274, 2-14=-671/261, 4-14=-510/284, 5-14=-316/772,
 1-16=-251/1601, 8-11=-117/1052, 12-14=-124/910

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 17 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) 17=168, 9=142.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025221
210367	H1	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:47 2021 Page 1

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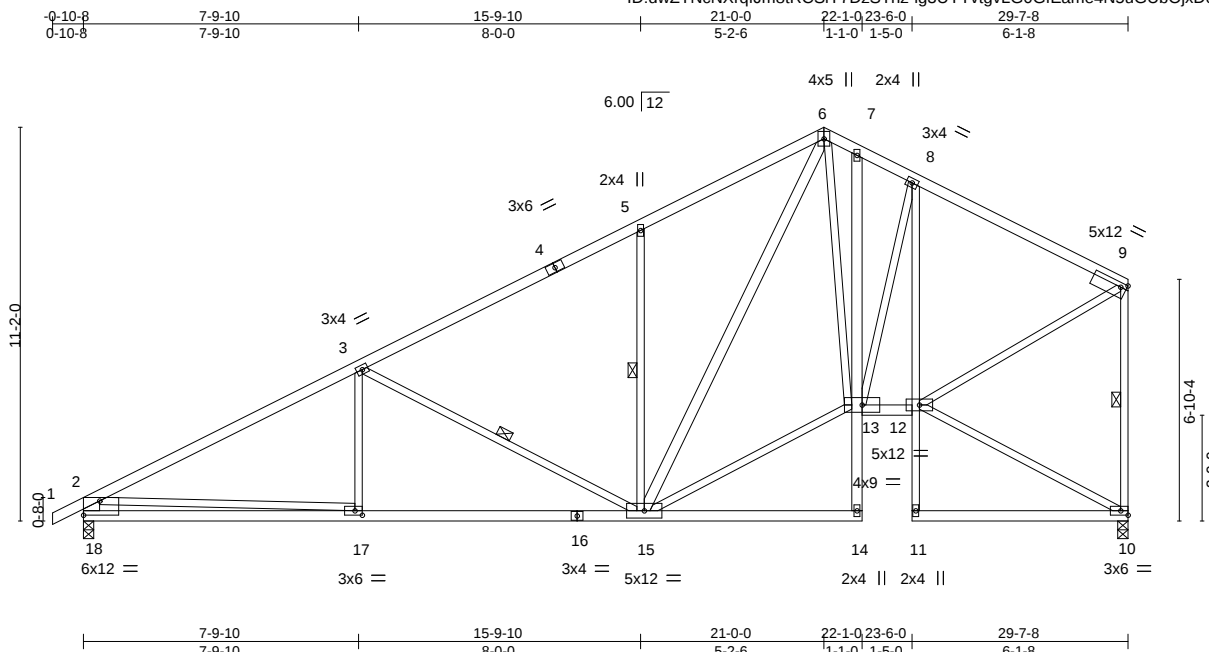


Plate Offsets (X,Y)--		[9:0-2-0,0-1-8], [17:0-2-8,0-1-8], [18:Edge,0-4-13]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.72	Vert(LL) -0.10 15-17 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.62	Vert(CT) -0.23 15-17 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.81	Horz(CT) 0.08 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.07 15-17 >999 240	Weight: 161 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 8-11: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 6-15: 2x4 SPF No.2, 2-18: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-2-15 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 9-2-5 oc bracing.
 WEBS 1 Row at midpt 3-15, 5-15, 9-10

REACTIONS.

(size) 18=0-3-8, 10=0-3-8
 Max Horz 18=338(LC 5)
 Max Uplift 18=212(LC 8), 10=155(LC 8)
 Max Grav 18=1397(LC 1), 10=1317(LC 1)

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

TOP CHORD 2-3=-2170/306, 3-5=-1477/251, 5-6=-1447/401, 6-7=-1059/256, 7-8=-1208/265,
 8-9=-1157/210, 2-18=-1324/254, 9-10=-1257/178
 BOT CHORD 17-18=-405/789, 15-17=-375/1836, 12-13=-146/980, 8-12=-504/114
 WEBS 3-17=0/282, 3-15=-720/243, 5-15=-503/278, 6-15=-315/668, 6-13=-85/309, 2-17=0/1048,
 9-12=-117/1139, 13-15=-125/1044

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=212, 10=155.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025222
210367	H2	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:48 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-AsdslpvVRCT7eQDR8T9JvIRQs_kCge2RtrfM3QzewL

0-10-8	2-3-8	7-9-10	12-7-0	16-9-8	21-0-0	25-2-8	29-7-8
0-10-8	2-3-8	5-6-2	4-9-6	4-2-8	4-2-8	4-2-8	4-5-0

Scale: 3/16"=1'

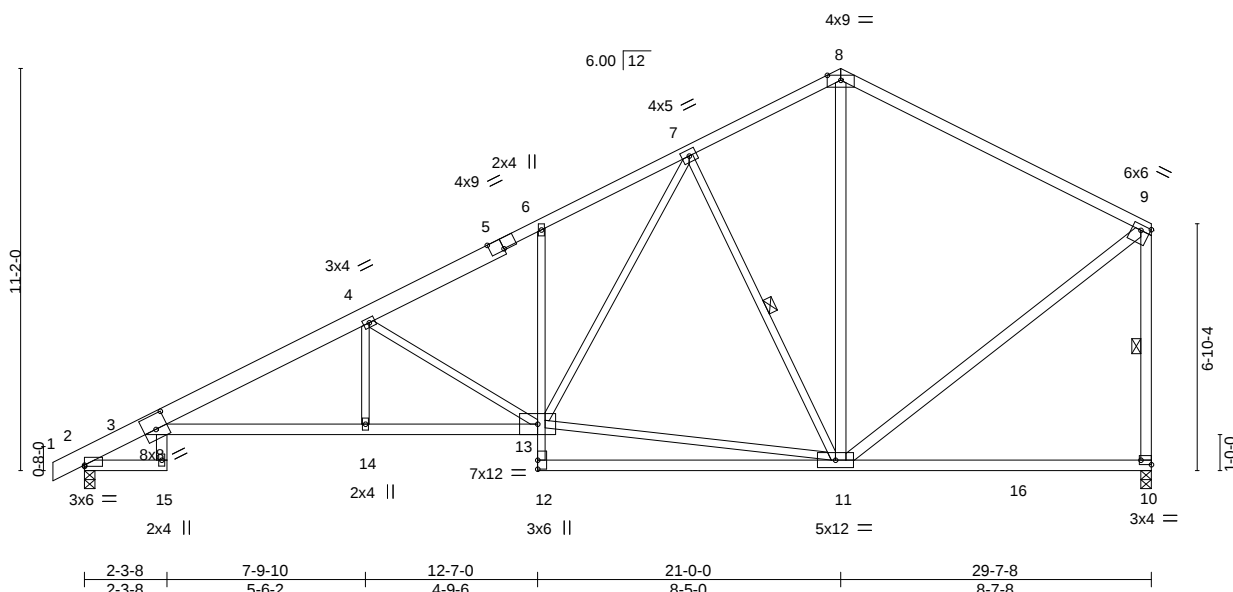


Plate Offsets (X,Y)--		[2:0-0-0,0-7], [3:0-4-0,0-4-12], [5:0-4-8,Edge], [9:Edge,0-1-12], [10:Edge,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.81	Vert(LL)	-0.28	3-14	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.60	Vert(CT)	-0.49	3-14	>711	240		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.93	Horz(CT)	0.31	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.22	3-14	>999	240	Weight: 156 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-15.
WEBS 1 Row at midpt 7-11, 9-10

REACTIONS.

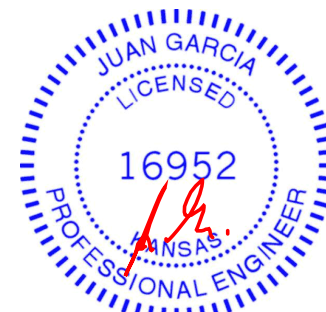
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=333(LC 5)
Max Uplift 2=-205(LC 8), 10=-156(LC 8)
Max Grav 2=1438(LC 2), 10=1408(LC 2)

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

TOP CHORD 2-3=-921/32, 3-4=-2895/439, 4-6=-2044/346, 6-7=-1943/424, 7-8=-939/232,
8-9=-1004/237, 9-10=-1245/200
BOT CHORD 3-14=-521/2705, 13-14=-520/2704
WEBS 4-14=0/286, 4-13=-1143/299, 11-13=-154/1069, 7-13=-269/1136, 7-11=-904/309,
8-11=-88/503, 9-11=-92/983

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=205, 10=156.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025223
210367	H3	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:49 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSIY7DzSTnz-e3BFz8w7CWb_GaodiBgYSW_cLO4mP5Sa6JavbszewlK

0-10-8 2-3-8 7-9-9 15-9-10 20-0-0 21-0-0 26-2-6 29-7-8

0-10-8 2-3-8 5-6-1 8-0-1 4-2-6 1-0-0 5-2-6 3-5-2

6.00 12

4x9 =

7 8

3x6 =

4x9 =

6x6 =

3x4 =

7x12 =

3x4 =

5x12 =

3x4 =

11-2-0

6-10-4

1-0-0

2-3-8 7-9-9 15-9-10 20-0-0 26-2-6 29-7-8

2-3-8 5-6-1 8-0-1 4-2-6 6-2-6 3-5-2

Plate Offsets (X,Y)--		[2:0-0-0,0-0-7], [3:0-4-0,0-4-12], [5:0-4-8,Edge], [10:0-2-0,0-1-8], [11:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.76
TCDL 10.0	Lumber DOL	1.15	BC 0.58
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.26 3-16 >999 360
			Vert(CT) -0.49 3-16 >726 240
			Horz(CT) 0.32 11 n/a n/a
			Wind(LL) 0.24 3-16 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 174 lb FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-10-9 oc purlins, except end verticals.
1-5: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
BOT CHORD 2x4 SPF No.2 *Except*	6-0-0 oc bracing: 2-17.
3-14: 2x4 SPF 2100F 1.8E	1 Row at midpt 7-14
WEBS 2x3 SPF No.2 *Except*	WEBS 1 Row at midpt 4-15, 6-14, 8-12, 9-12, 10-11
3-17,8-12,18-20,19-21: 2x4 SPF No.2	

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=333(LC 5)
Max Uplift 2=-205(LC 8), 11=-155(LC 8)
Max Grav 2=1405(LC 1), 11=1321(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-805/32, 3-4=-2847/450, 4-6=-1687/277, 6-7=-1083/256, 7-8=-934/282, 8-9=-642/215, 9-10=-586/158, 10-11=-1299/180
BOT CHORD 3-16=-536/2602, 15-16=-536/2602, 14-15=-177/1364
WEBS 4-16=0/330, 4-15=-1331/386, 6-15=-55/626, 6-14=-916/263, 12-14=-98/712, 8-14=-235/1012, 8-12=-708/92, 9-12=-349/209, 10-12=-102/1093

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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=205, 11=155.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

March 3,2021

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

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

MiTek

16023 Swingley Ridge Rd

Chesterfield, MO 63017

Job 210367	Truss H4	Truss Type Roof Special	Qty 2	Ply 1	Lot 1 H3	I45025224
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:50 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-6FIdAUxlzqjrtkNpFuCn?jWkjoPf8YajLzK7IzewlJ

0-10-8 2-3-8 7-9-9 15-9-9 21-0-0 23-4-0 29-5-0 29-7-8
0-10-8 2-3-8 5-6-1 8-0-0 5-2-7 2-4-0 6-1-0 0-2-8

Scale: 3/16"=1'

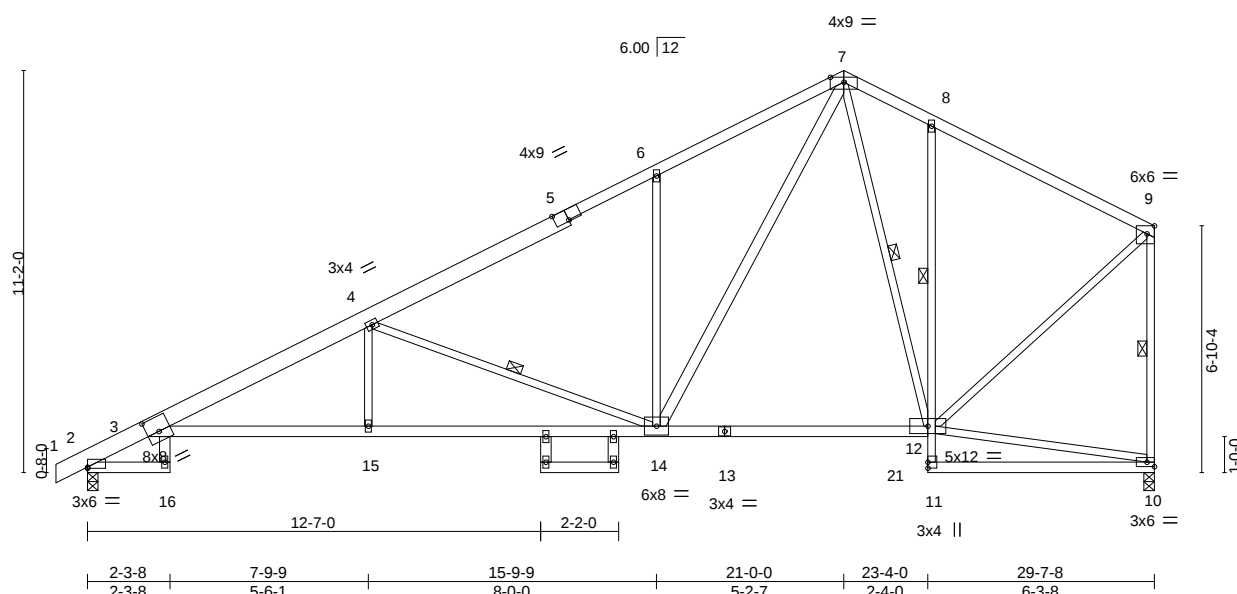


Plate Offsets (X,Y)--		[2:0-0,0-0-7], [3:0-4-0,0-4-12], [5:0-4-8,Edge], [9:0-2-8,Edge]		327		240		330			
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.91	Vert(LL)	-0.29 3-15 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC	0.61	Vert(CT)	-0.51 3-15 >693 240				
BCLL	0.0 *	Rep Stress Incr YES		WB	0.92	Horz(CT)	0.32 10 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.23 3-15 >999 240	Weight: 157 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x4 SPF 2100F 1.8E, 8-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-16,7-14,17-19,18-20: 2x4 SPF No.2

BRACING-

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

REACTIONS.

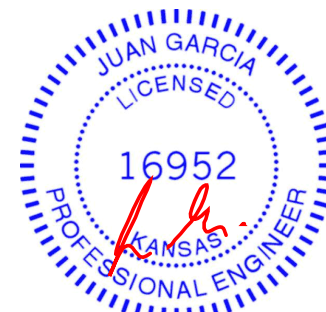
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=333(LC 7)
Max Uplift 2=205(LC 8), 10=155(LC 8)
Max Grav 2=1459(LC 2), 10=1406(LC 2)

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

TOP CHORD 2-3=-934/32, 3-4=-2959/451, 4-6=-1784/275, 6-7=-1720/416, 7-8=-973/254, 8-9=-971/209, 9-10=-1310/185
BOT CHORD 3-15=-537/2764, 14-15=-537/2763, 12-14=-93/896, 8-12=-408/237
WEBS 4-15=0/310, 4-14=-1353/389, 6-14=-418/253, 7-14=-328/1305, 7-12=-334/81, 9-12=-96/1104

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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=205, 10=155.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025225
210367	H5	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:51 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-aRJ?OqyNk7riVuy0pcj0Xx3uJClut0btZd30flzewll

0-10-8	7-9-9	14-9-0	21-0-0	23-4-0	29-7-8
0-10-8	7-9-9	6-11-7	6-3-0	2-4-0	6-3-8

4x9 =

Scale = 1:69.7

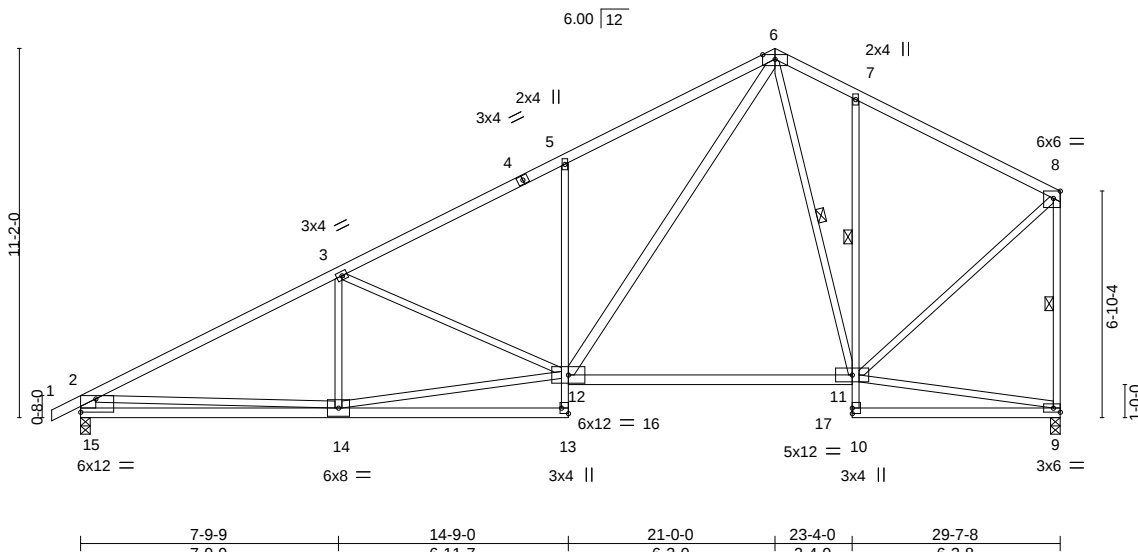


Plate Offsets (X,Y)--		[8:0-2-8,Edge], [13:Edge,0-2-8], [15:Edge,0-4-13]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.92	Vert(LL)	-0.29 11-12 >999 360	MT20	197/144		
TCDL	10.0	Lumber DOL 1.15		BC	0.61	Vert(CT)	-0.51 11-12 >694 240				
BCLL	0.0 *	Rep Stress Incr YES		WB	0.88	Horz(CT)	0.07 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08 5-12 >999 240	Weight: 145 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 5-13,7-10: 2x3 SPF No.2, 11-12: 2x4 SPF 2400F 2.0E
 WEBS 2x3 SPF No.2 *Except*
 6-12: 2x4 SPF No.2, 2-15: 2x6 SPF No.2

BRACING-

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

REACTIONS.

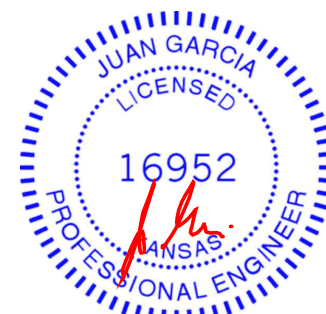
(size) 15=0-3-8, 9=0-3-8
 Max Horz 15=338(LC 7)
 Max Uplift 15=212(LC 8), 9=155(LC 8)
 Max Grav 15=1445(LC 2), 9=1406(LC 2)

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

TOP CHORD 2-3=-2247/299, 3-5=-1858/300, 5-6=-1872/454, 6-7=-977/246, 7-8=-979/206,
 2-15=-1322/254, 8-9=-1320/183
 BOT CHORD 14-15=-434/913, 5-12=-494/270, 11-12=-96/893, 7-11=-404/232
 WEBS 12-14=-329/1978, 3-12=-396/162, 6-12=-358/1352, 6-11=-318/107, 2-14=0/1081,
 8-11=-92/1112

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- The Fabrication Tolerance at joint 2 = 2%
- 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) 15=212, 9=155.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210367	Truss H6	Truss Type Common Supported Gable	Qty 1	Ply 1	Lot 1 H3 Job Reference (optional)	I45025226
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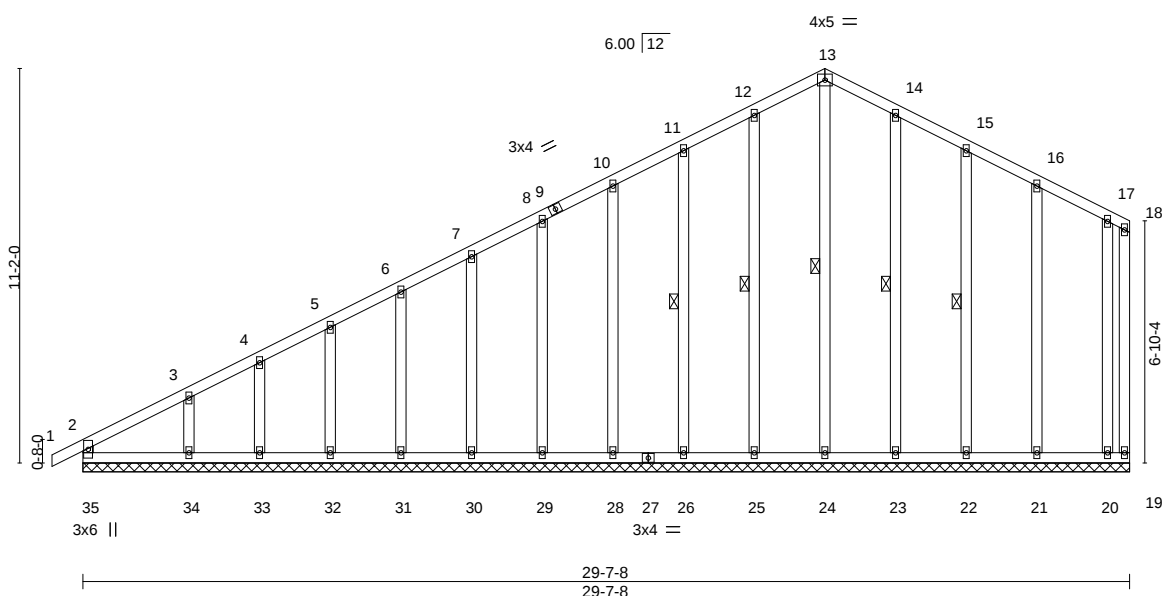
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:53 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-XqQlpWzdGI5Qk6Ox1UcM8P5?ZOL5EA1xY7kdzewlG

0-10-8 21-0-0 29-7-8
0-10-8 21-0-0 8-7-8

Scale = 1:65.2



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 0.20	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	-0.00	19	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 187 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 13-24, 12-25, 11-26, 14-23, 15-22

REACTIONS.

All bearings 29-7-8.

(lb) - Max Horz 35=338(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 35, 19, 24, 25, 26, 28, 29, 30, 31, 32, 33, 23, 22, 21, 20 except 34=-146(LC 8)

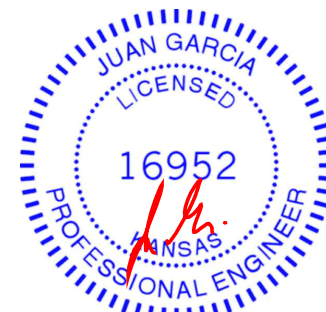
Max Grav All reactions 250 lb or less at joint(s) 19, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 23, 22, 21, 20 except 35=251(LC 16)

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

TOP CHORD 2-3=-296/112

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 35, 19, 24, 25, 26, 28, 29, 30, 31, 32, 33, 23, 22, 21, 20 except (jt=lb) 34=146.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 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



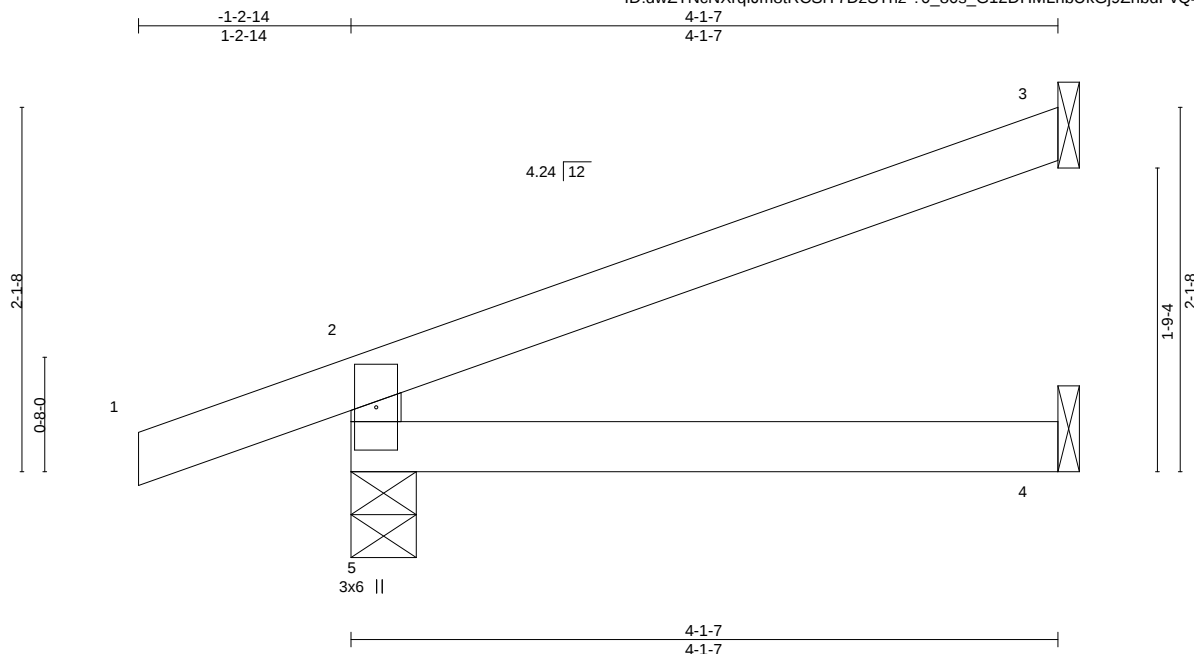
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss J1	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Lot 1 H3 I45025227
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:54 2021 Page 1

ID:dwZTNcNXrfJm8tRCSIY7DzSTnz-?0_80s_G12DHMLhbUkGj9ZhbdPvQ4a0JGblgG3zewlF



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 0.15	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-7 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=81(LC 12)
Max Uplift 5=91(LC 6), 3=51(LC 12)
Max Grav 5=144(LC 1), 3=80(LC 1), 4=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) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 30 lb down and 11 lb up at -1-2-14, and 30 lb down and 11 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=-46(F=-23, B=-23)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-24(F=23, B=23), 2=-3(F=34, B=34)-to-3=-72(F=-1, B=-1), 5=0(F=10, B=10)-to-4=-21(F=-0, B=-0)



March 3, 2021

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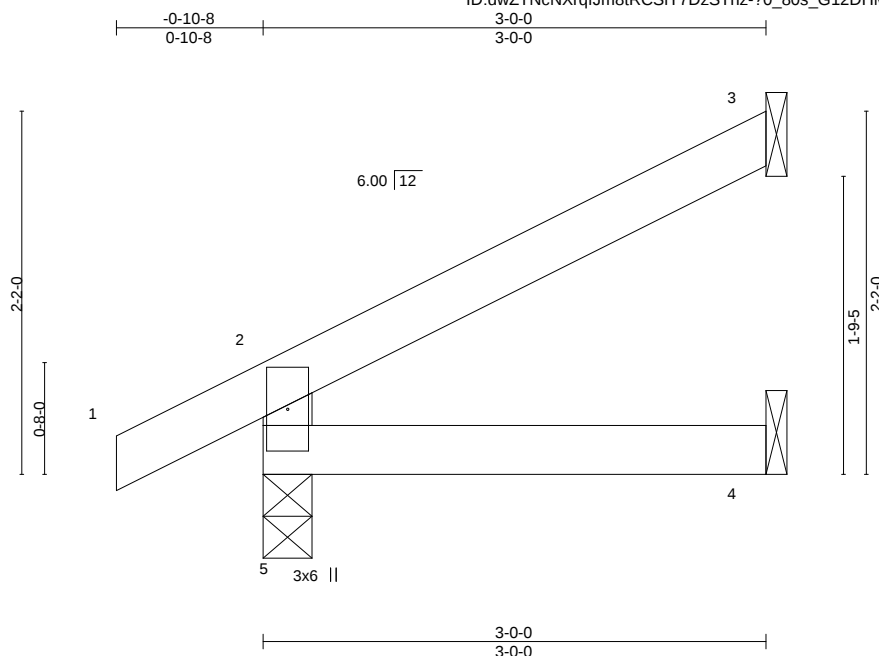
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025228
210367	J2	Jack-Open	6	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:54 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-?0_80s_G12DHMLhbUkGj9ZhcRPw34a0JGblgG3zewlF



Scale = 1:13.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=69(LC 8)
Max Uplift 5=27(LC 8), 3=49(LC 8)
Max Grav 5=210(LC 1), 3=82(LC 1), 4=52(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.



March 3, 2021

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



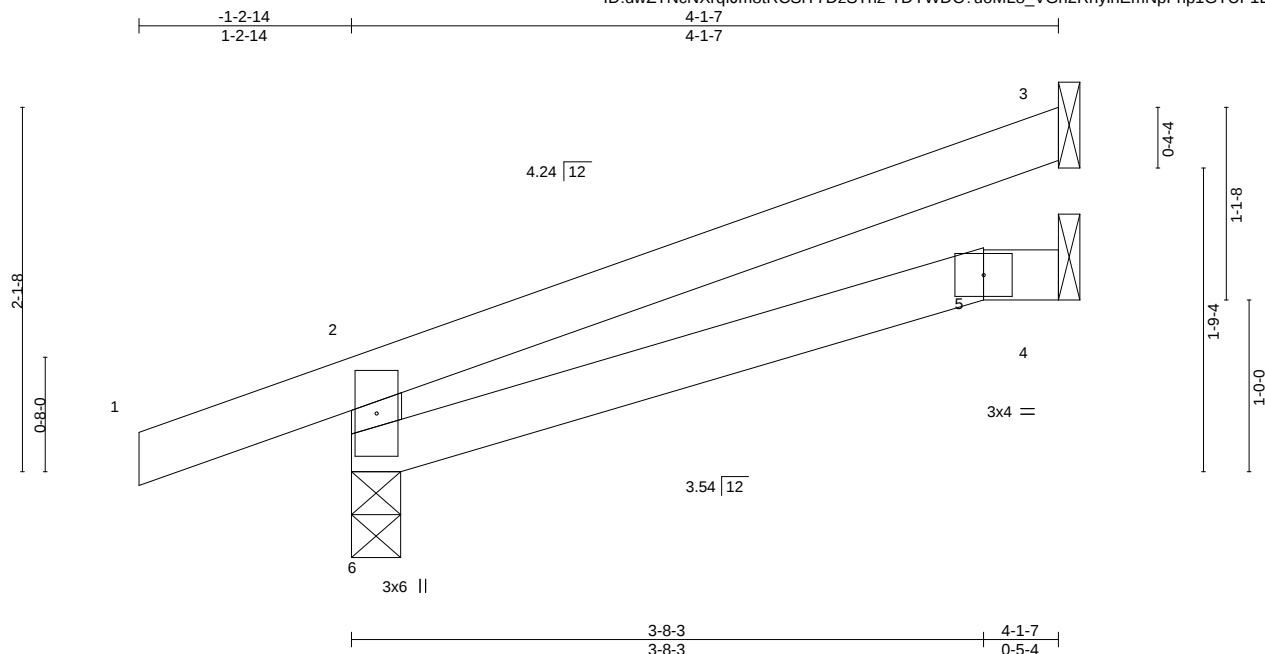
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025229
210367	J3	Jack-Open Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:55 2021 Page 1

ID:dwZTNcNXrqtJm8tRCSiY7DzSTnz-TDYWDC?uoML8_VGn2RnyinEmNpFhp1GTUF1DpWzewIE



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 0.15	Vert(LL)	-0.01	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.02	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	5-6	>999	240	Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 6=0-3-7, 3=Mechanical, 4=Mechanical
Max Horz 6=80(LC 12)
Max Uplift 6=90(LC 6), 3=51(LC 12)
Max Grav 6=144(LC 1), 3=80(LC 1), 4=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) 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.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 30 lb down and 11 lb up at -1-2-14, and 30 lb down and 11 lb up at -1-2-14 on top 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

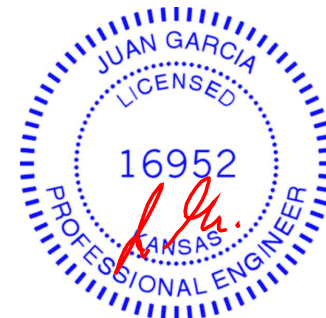
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Concentrated Loads (lb)

Vert: 1=-46(F=-23, B=23)

Trapezoidal Loads (plf)

Vert: 1=0(F=35, B=35)-to-2=-24(F=23, B=23), 2=-3(F=34, B=34)-to-3=-72(F=-1, B=-1), 6=0(F=10, B=10)-to-5=-19(F=1, B=1), 5=-19(F=1, B=1)-to-4=-21(F=-0, B=-0)



March 3, 2021

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

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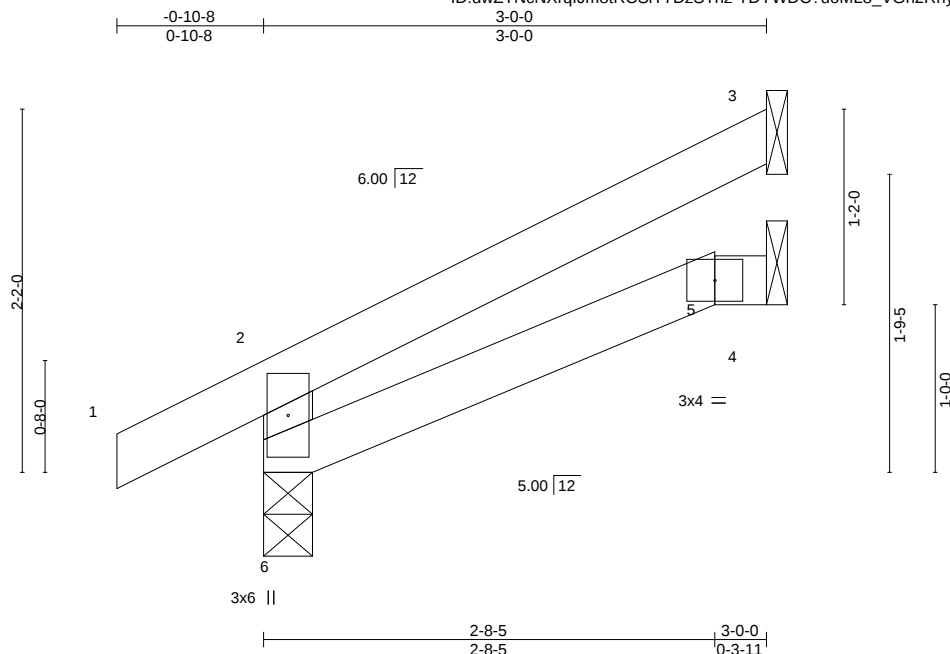
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss J4	Truss Type Jack-Open	Qty 5	Ply 1	Lot 1 H3	I45025230
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:55 2021 Page 1

ID:dwZTNcNXrqJm8tRCSiY7DzSTnz-TDYWDC?uoML8_VGn2RnyinEnApGJp1GTUF1DpWzewlE



Scale = 1:13.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	5-6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.01	5-6	>999	240	197/144
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	5-6	>999	240	
								Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-0 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=68(LC 8)
Max Uplift 6=26(LC 8), 3=50(LC 8)
Max Grav 6=210(LC 1), 3=83(LC 1), 4=52(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.



March 3, 2021

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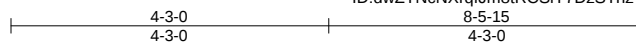
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss LAY1A	Truss Type GABLE	Qty 1	Ply 1	Lot 1 H3 I45025231
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Wheeler Lumber, Waverly, KS - 66871,

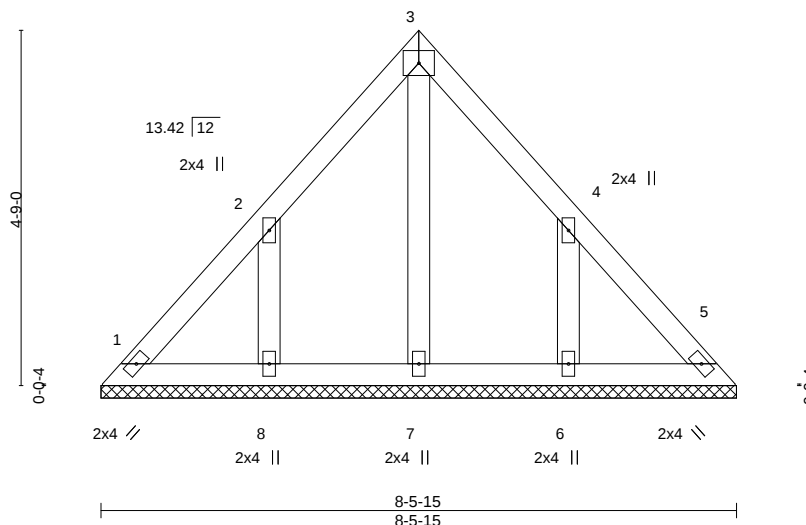
8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:56 2021 Page 1

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4x5 =

Scale = 1:30.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 32 lb	FT = 10%

LUMBER-

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

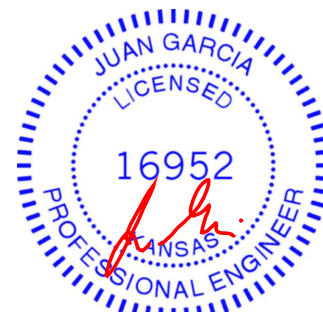
REACTIONS.

All bearings 8-5-15.
(lb) - Max Horz 1=-118(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-166(LC 8), 6=-166(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=166, 6=166.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 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

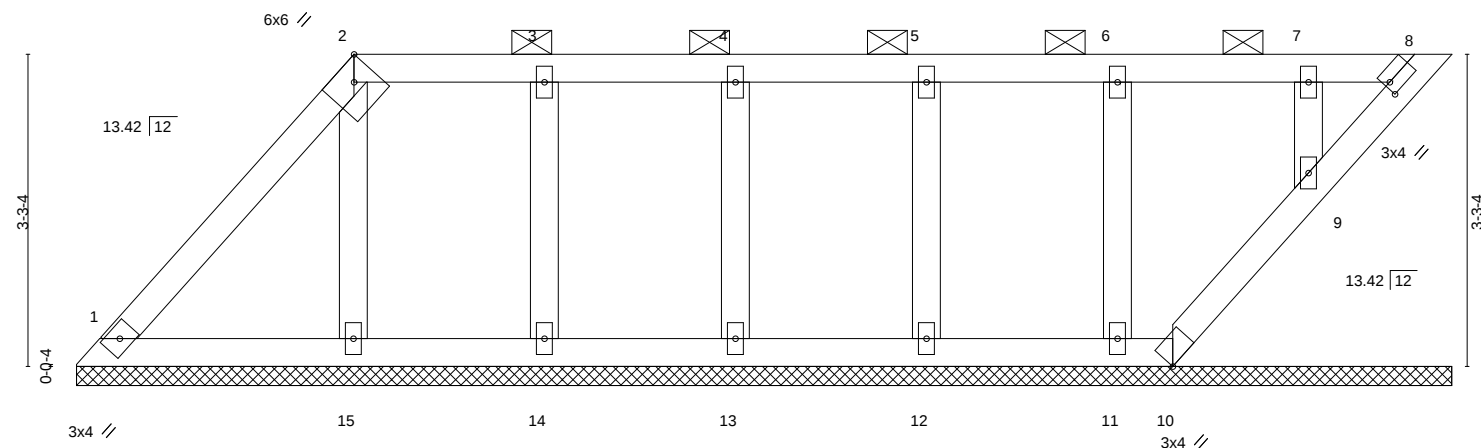
Job 210367	Truss LAY2	Truss Type GABLE	Qty 1	Ply 1	Lot 1 H3	I45025232
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:50:57 2021 Page 1
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2-11-1 2-11-1 14-5-0 11-5-15

Scale: 1/2"=1'



0'-0-4	11-5-15	14-5-0
0'-0-4	11-5-12	2-11-1

Plate Offsets (X,Y)-- [2:0-2-10,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 0.08	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 0.03	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 52 lb	FT = 10%

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

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

REACTIONS. All bearings 14-4-12.
(lb) - Max Horz 1=121(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8, 10, 15, 14, 13, 12, 11, 9
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 15, 14, 13, 12, 11, 9

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10, 15, 14, 13, 12, 11, 9.
- Non Standard bearing condition. Review required.
- This truss 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.



March 3, 2021

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

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



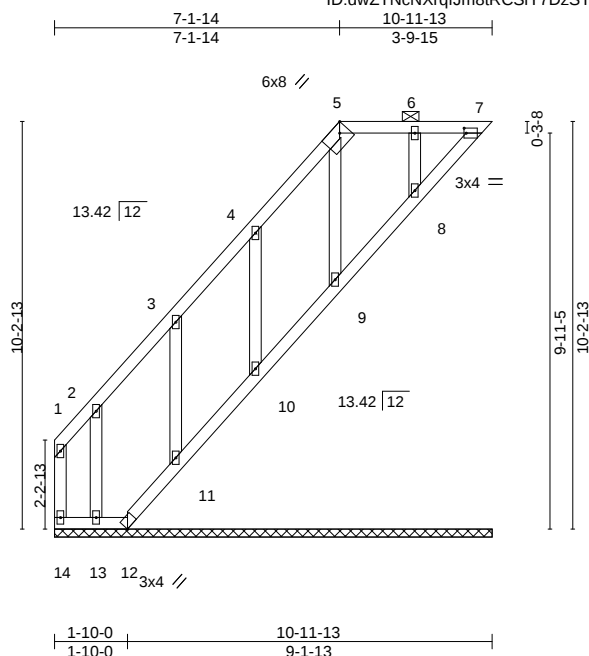
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025233
210367	LAY3A	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:dwZTNcNXrfJm8tRCSIY7DzSTnz-toEesD1m4Hjrz_MjaLfJPslW0HCNDvADGuPrzewlB



Scale = 1:57.8

Plate Offsets (X,Y)--		[5:0-2-10,Edge], [7:0-0-10,0-1-8]							
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 0.09		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 0.05		Horz(CT) -0.01 7	n/a	n/a	
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S					Weight: 54 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 6-0-0 oc bracing.

REACTIONS.

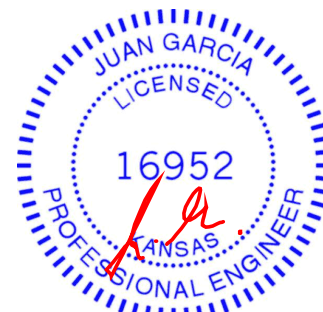
All bearings 10-11-13.
(lb) - Max Horz 14=295(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 14, 9, 8 except 7=298(LC 8), 12=148(LC 6), 13=207(LC 8), 11=154(LC 8), 10=152(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 14, 7, 13, 11, 10, 9, 8 except 12=344(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-198/360, 5-6=-133/273, 6-7=-132/274
BOT CHORD 13-14=-280/133, 12-13=-280/133, 11-12=-434/217, 10-11=-429/215, 9-10=-429/214, 8-9=-421/210, 7-8=-419/203

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) 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) 14, 9, 8 except (jt=lb) 7=298, 12=148, 13=207, 11=154, 10=152.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 11, 10, 9, 8.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 3,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss LAY4A	Truss Type GABLE	Qty 1	Ply 1	Lot 1 H3 I45025234
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Wheeler Lumber, Waverly, KS - 66871,

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ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-M_o13Z2OrarZS6ZYHhsudOTQQdfIqe2Pt0RyHzewIA

Job Reference (optional)

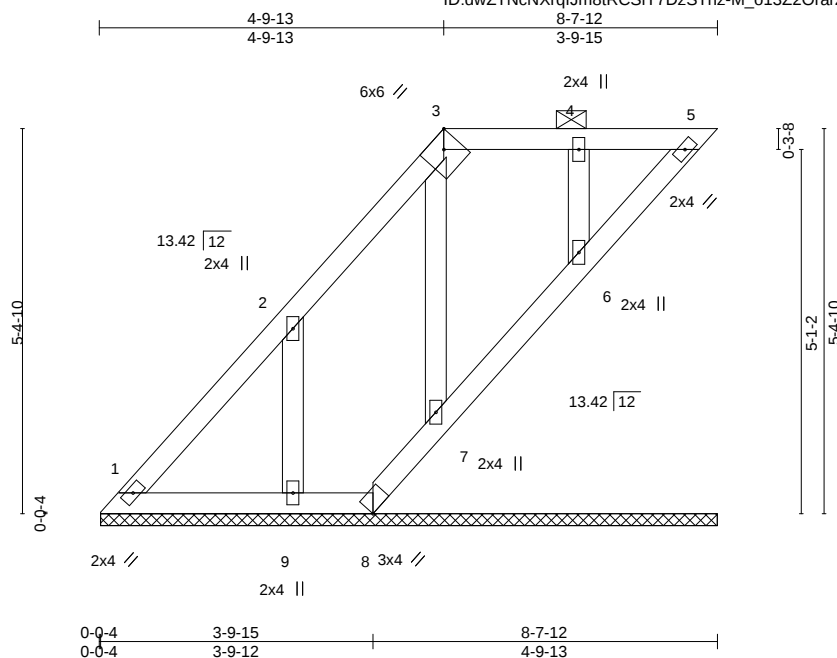


Plate Offsets (X,Y)-- [3:0-2-10,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 33 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, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 5-6.

REACTIONS.

All bearings 8-7-8.
(lb) - Max Horz 1=209(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 5, 8, 7, 6 except 9=-195(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 8, 7, 6 except 9=284(LC 15)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 8, 7, 6 except (jt=lb) 9=195.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 3, 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 210367	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025235
Job Reference (optional)					

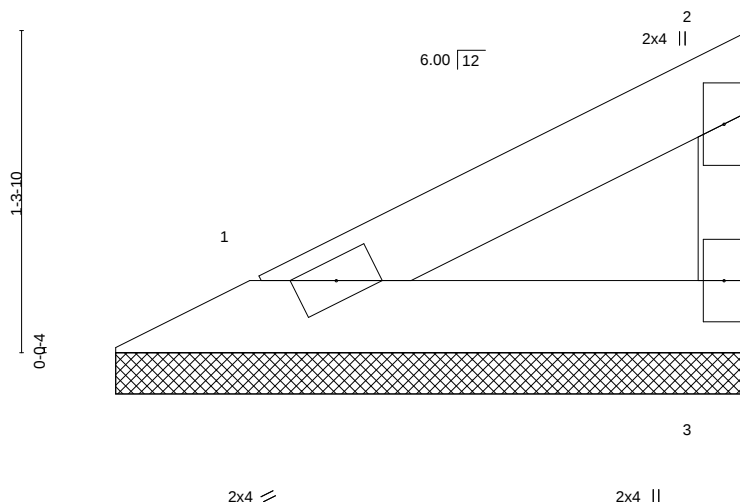
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:00 2021 Page 1

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2-7-4
2-7-4

Scale = 1:9.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	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: 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 2-7-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-6-12, 3=2-6-12
Max Horz 1=39(LC 5)
Max Uplift 1=11(LC 8), 3=21(LC 8)
Max Grav 1=84(LC 1), 3=84(LC 1)

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

NOTES-

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



March 3, 2021

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

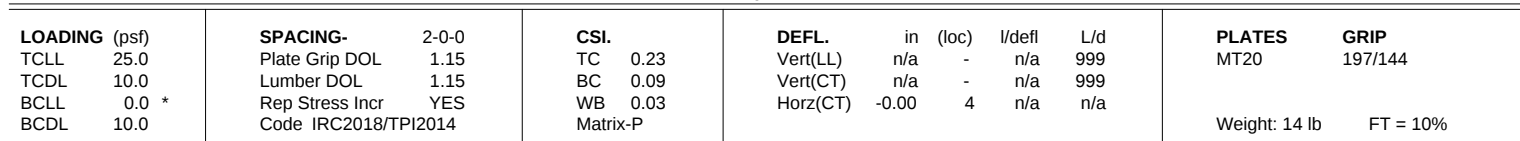
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:06 2021 Page 1
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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 5-1-12 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-1-4, 4=5-1-4, 5=5-1-4
 Max Horz 1=63(LC 7)
 Max Uplift 1=-28(LC 8), 4=-38(LC 3), 5=-4(LC 8)
 Max Grav 1=154(LC 1), 4=8(LC 16), 5=237(LC 1)

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

NOTES-

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



March 3, 2021



WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED WITHER REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.

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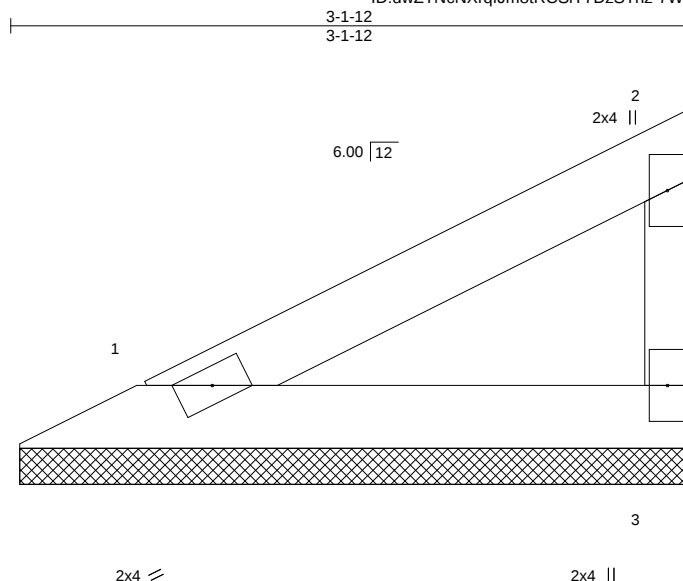
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V3A	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025237
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:07 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-7WH2II8Pz2sRQLA4Iz?mBJjq7fMGdSEEF6ysEpzewl2



Scale = 1:10.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=3-1-4, 3=3-1-4
Max Horz 1=50(LC 5)
Max Uplift 1=14(LC 8), 3=27(LC 8)
Max Grav 1=109(LC 1), 3=109(LC 1)

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

NOTES-

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



March 3, 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



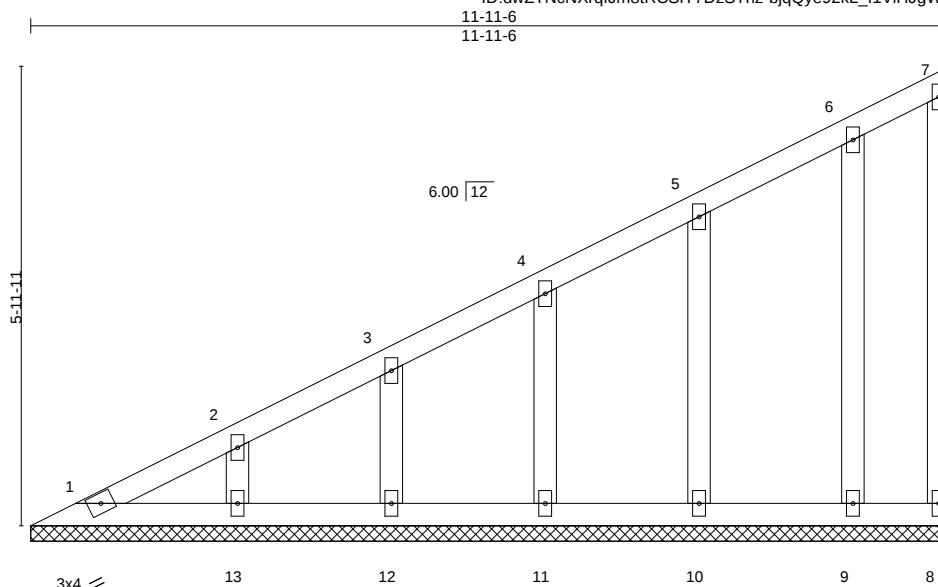
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V4A	Truss Type GABLE	Qty 1	Ply 1	Lot 1 H3	I45025238
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:08 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-bjqQye92kL_11VHJgW?jWG_N2iRMvNUmhQmGzewl1



Scale = 1:30.0

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 0.13	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 50 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-11-6.
(lb) - Max Horz 1=233(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 8, 13, 12, 11, 10, 9
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 13, 12, 11, 10, 9

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 13, 12, 11, 10, 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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

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

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

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



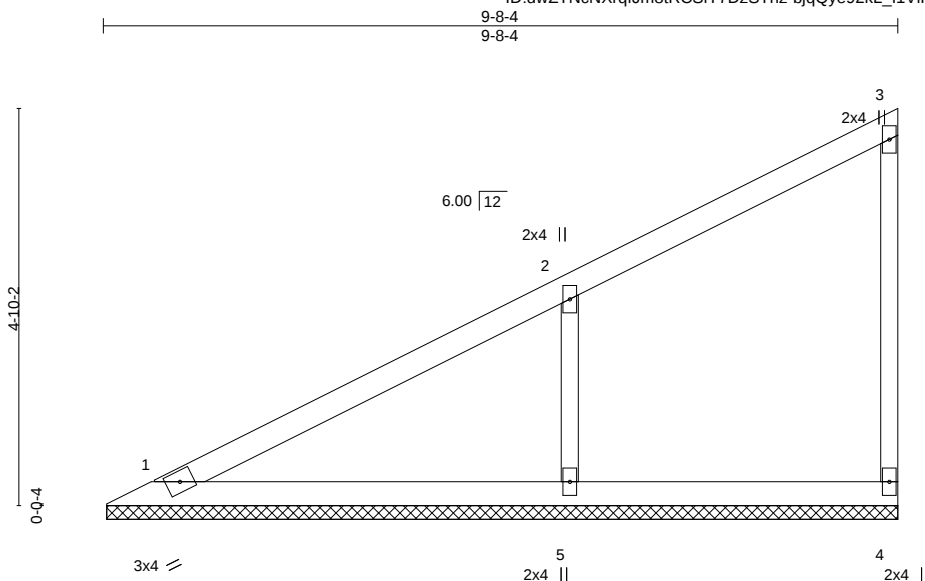
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V5	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025239
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:08 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-bjqQye92kL_I1VIHJgW?jWGxK2geMu8NUmhQmGzewl1



Scale = 1:28.1

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 0.33	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	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: 28 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-7-12, 4=9-7-12, 5=9-7-12
Max Horz 1=187(LC 5)
Max Uplift 4=-28(LC 5), 5=-152(LC 8)
Max Grav 1=183(LC 1), 4=117(LC 1), 5=506(LC 1)

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

WEBS 2-5=-383/203

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=152.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021

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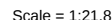


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:09 2021 Page 1

ID:dwZTNcNXrpfJm8tRCSiY7DzSTnz-3vOp9_AqVf69ffKTtO1EGkp88S0_5MuWiORzIizewl0



LUMBER-

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

BRACING-

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

REACTIONS.

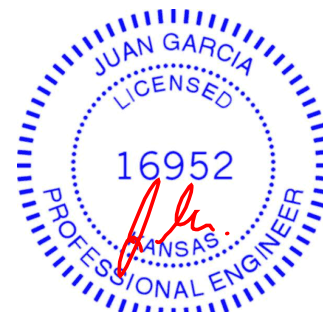
(size) 1=7-3-12, 4=7-3-12, 5=7-3-12
 Max Horz 1=138(LC 5)
 Max Uplift 4=-26(LC 8), 5=-115(LC 8)
 Max Grav 1=87(LC 16), 4=141(LC 1), 5=382(LC 1)

FORCES.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-297/165

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=115.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 2021



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.



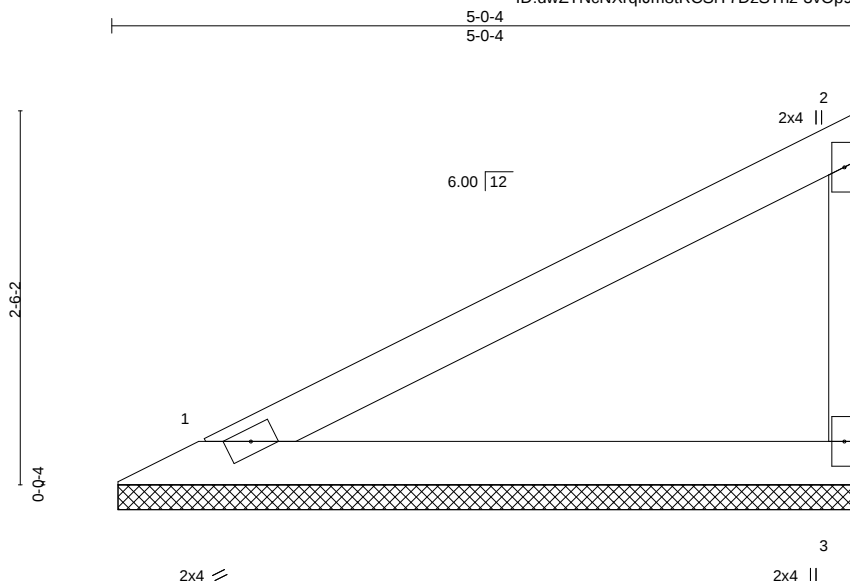
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025241
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:09 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-3vOp9_AgVf69ffKTtO1EGkp6mS?e5MjWiQRzIzewl0



Scale = 1:15.5

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

LUMBER-

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

BRACING-

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

REACTIONS. (size) 1=4-11-12, 3=4-11-12
Max Horz 1=89(LC 7)
Max Uplift 1=25(LC 8), 3=47(LC 8)
Max Grav 1=193(LC 1), 3=193(LC 1)

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

NOTES-

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



March 3, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V8	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025242
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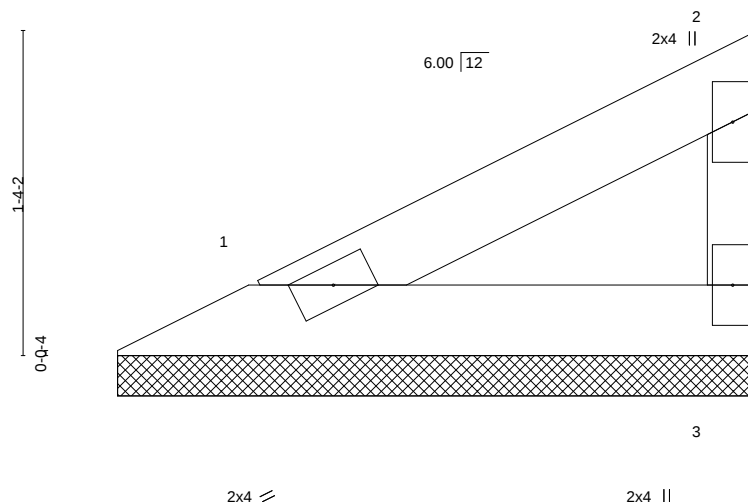
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:10 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-X5yBNKBIGzE0HpvfQ5ZToxLMwsNGqpzgx4AWq8zewl?

2-8-4
2-8-4

Scale = 1:9.5



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 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	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: 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 2-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

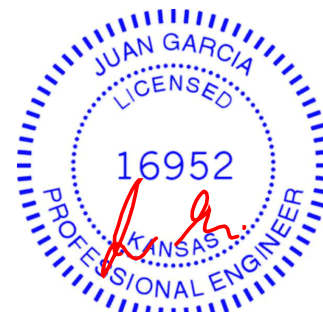
REACTIONS.

(size) 1=2-7-12, 3=2-7-12
Max Horz 1=41(LC 5)
Max Uplift 1=11(LC 8), 3=22(LC 8)
Max Grav 1=88(LC 1), 3=88(LC 1)

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

NOTES-

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



March 3, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

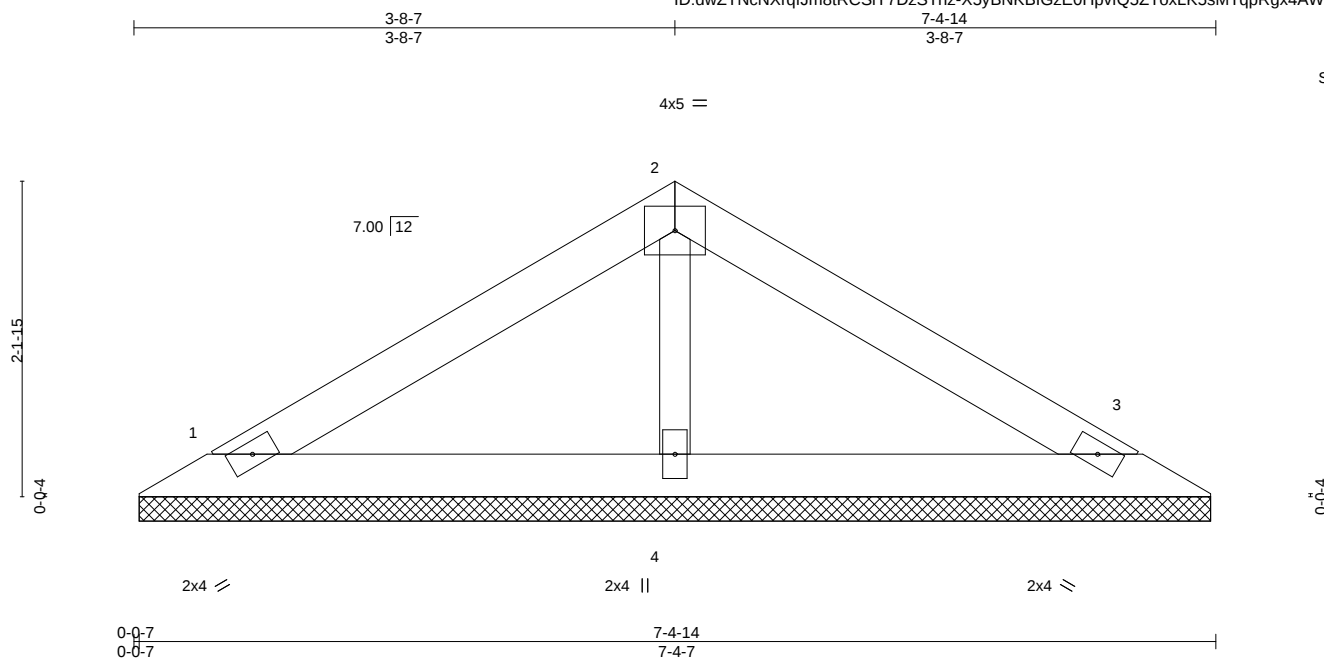
Job 210367	Truss V9	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025243
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:10 2021 Page 1

ID:dwZTNcNXrqJm8tRCSiY7DzSTnz-X5yBNKBIgZE0HpvfQ5ZToxLK5sMTqRgx4AWq8zewl?

Scale = 1:15.8



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 0.18	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 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 18 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-4-0, 3=7-4-0, 4=7-4-0
Max Horz 1=-48(LC 6)
Max Uplift 1=-35(LC 8), 3=-41(LC 9)
Max Grav 1=154(LC 1), 3=154(LC 1), 4=261(LC 1)

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

NOTES-

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



March 3, 2021

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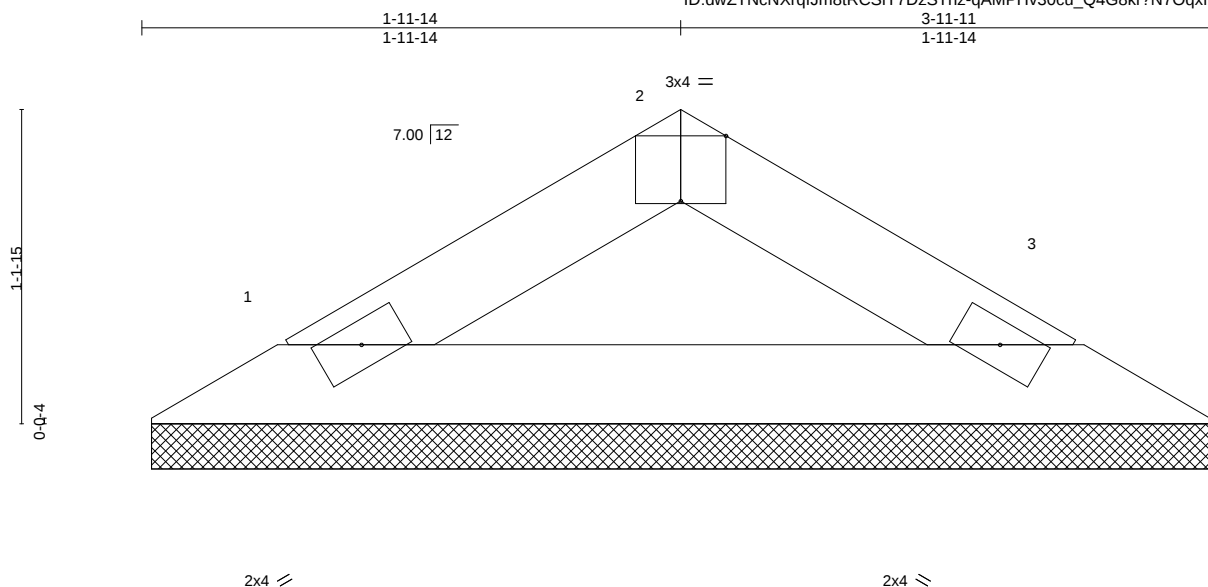
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V10	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025244
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:00 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-qAMPHv30cu_Q4G8kr?N7Oqxfwqy8UHVCEwI_Ujzewl9



Scale = 1:8.5

Plate Offsets (X,Y)-- [2:0-2,0,Edge]		0-0-7 0-0-7		3-11-11 3-11-5	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03	Vert(LL)	n/a - n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.08	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: 8 lb	FT = 10%

LUMBER-

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

BRACING-

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

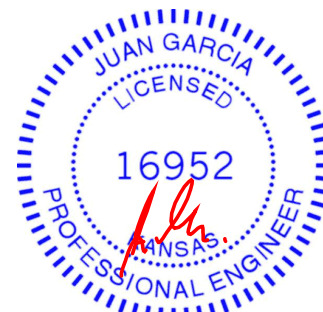
REACTIONS.

(size) 1=3-10-14, 3=3-10-14
Max Horz 1=-22(LC 4)
Max Uplift 1=-16(LC 8), 3=-16(LC 9)
Max Grav 1=130(LC 1), 3=130(LC 1)

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

NOTES-

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



March 3, 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

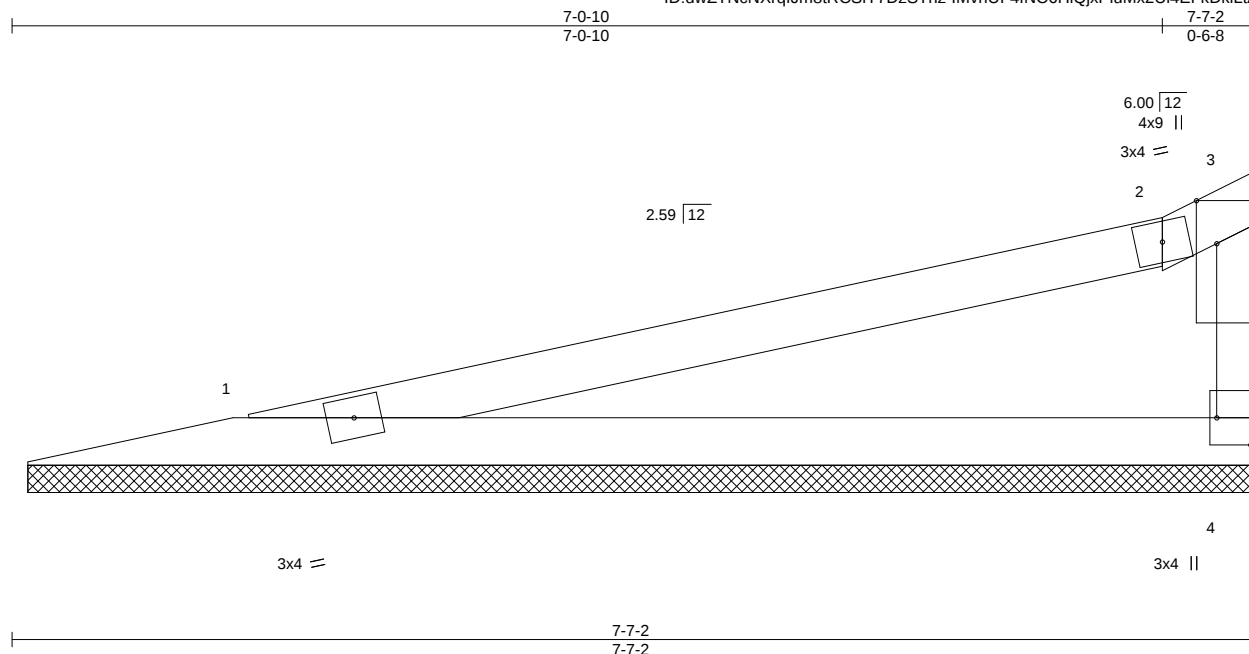


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025245
210367	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:01 2021 Page 1
ID:dwZTNcNXrfJm8tRCSIY7DzSTnz-IMvnUF4fNC6HiQjxPiuMx2Uj4EFKdKltAVY09zewl8



Scale = 1:14.1

Plate Offsets (X,Y)--		[3:0-3-3,Edge], [4:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52
TCDL 10.0	Lumber DOL	1.15	BC 0.32
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 4 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 17 lb FT = 10%

LUMBER-

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

BRACING-

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

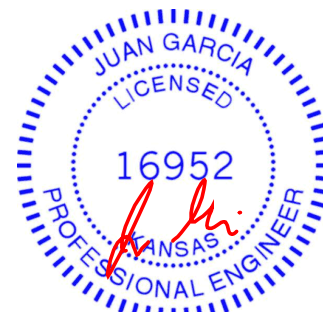
REACTIONS.

(size) 1=7-6-0, 4=7-6-0
Max Horz 1=60(LC 5)
Max Uplift 1=-48(LC 4), 4=-54(LC 8)
Max Grav 1=272(LC 1), 4=272(LC 1)

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



March 3, 2021

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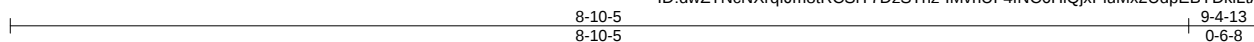
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025246
210367	V12	Valley	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:01 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-IMvnUF4fNC6HiQjxPiuMx2UdpEBYDkLtAVY09zewl8



Scale = 1:17.3

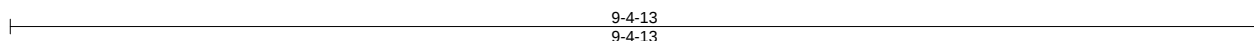
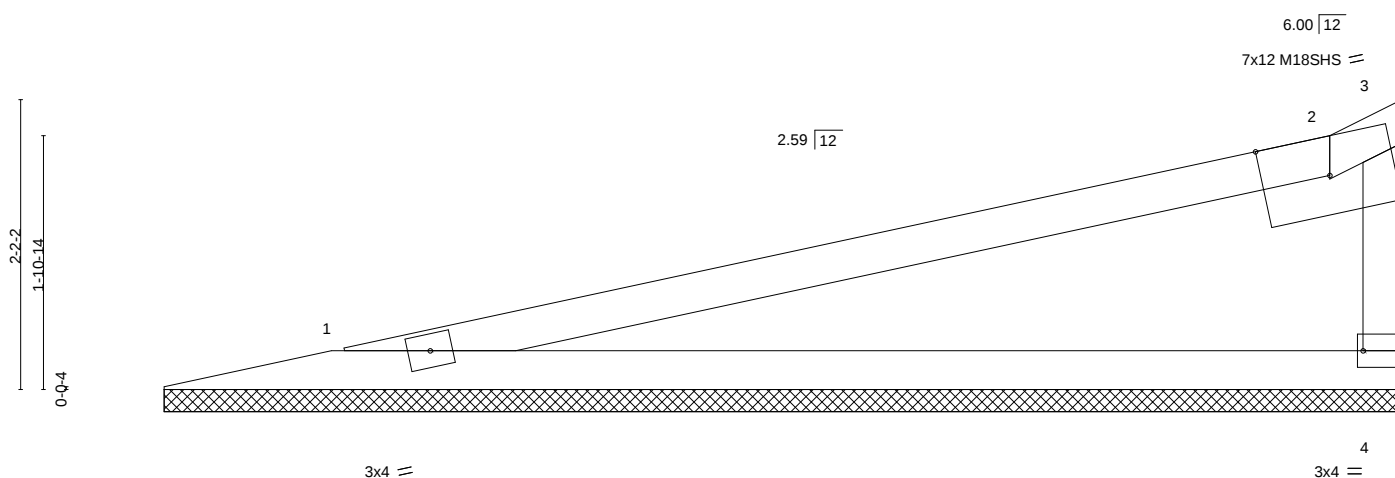


Plate Offsets (X,Y)--		[2:0-6-2,Edge], [4:Edge,0-1-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.86		Vert(LL)	n/a -	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.52		Vert(CT)	n/a -	M18SHS	197/144
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 4		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R				Weight: 22 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

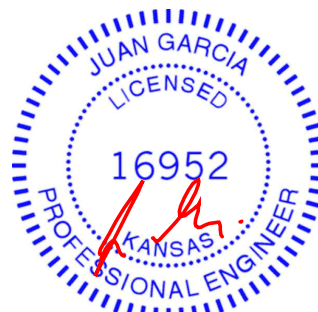
(size) 1=9-3-10, 4=9-3-10
Max Horz 1=76(LC 5)
Max Uplift 1=62(LC 4), 4=70(LC 8)
Max Grav 1=351(LC 1), 4=351(LC 1)

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

TOP CHORD 1-2=-269/43

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) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 3, 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

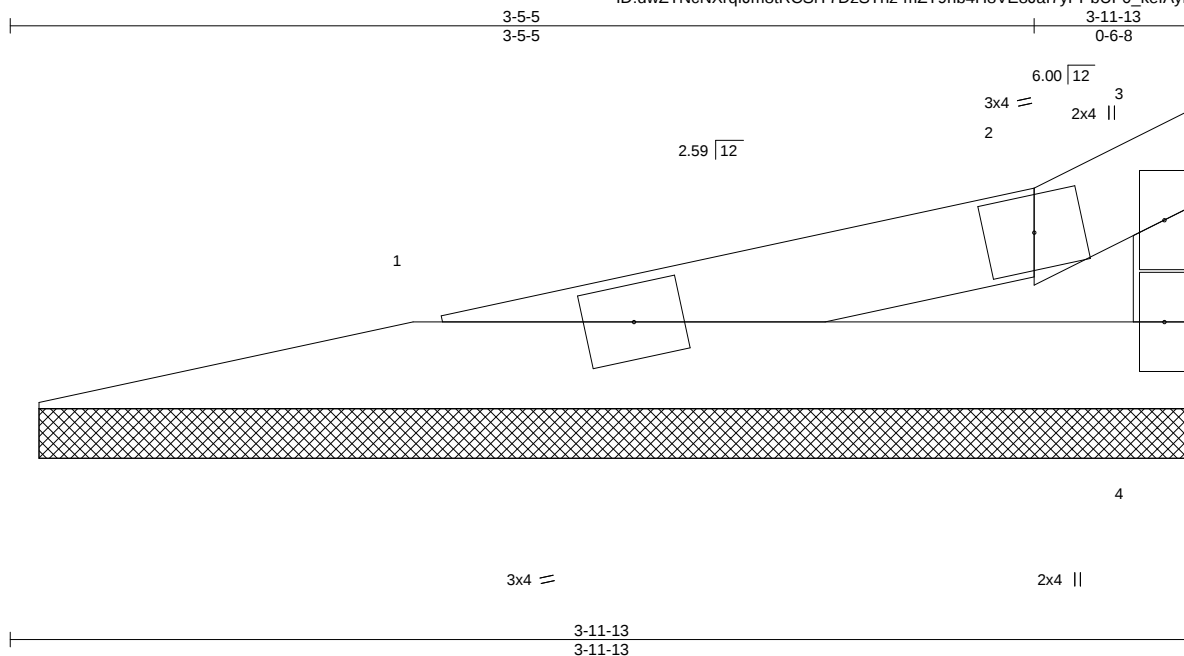


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025247
210367	V13	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:02 2021 Page 1
ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-mZT9hb4H8VE8Jal7yPPbUF0_kefAyB_U5qE5Yczewl7



Scale = 1:7.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

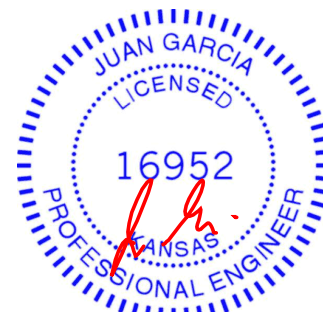
REACTIONS.

(size) 1=3-10-10, 4=3-10-10
Max Horz 1=27(LC 5)
Max Uplift 1=19(LC 4), 4=22(LC 8)
Max Grav 1=109(LC 1), 4=109(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, 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.



March 3, 2021

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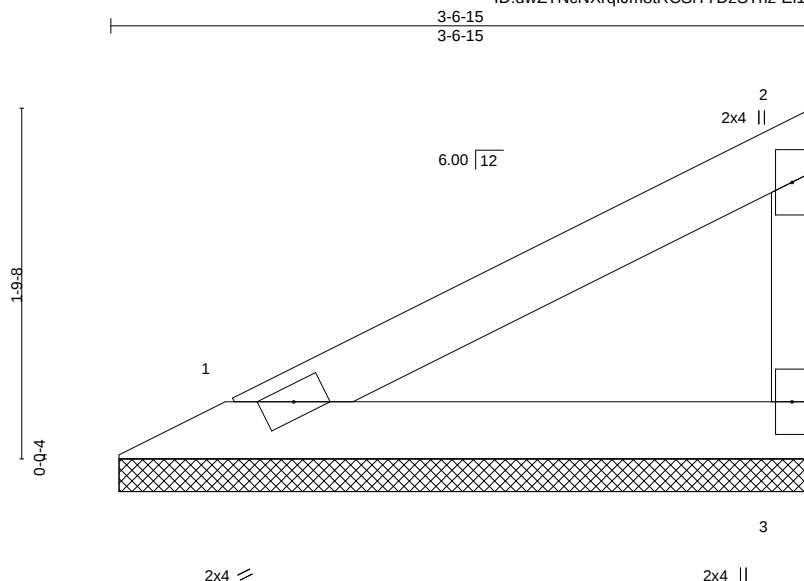
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025248
210367	V14	Valley	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:03 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-El1Xvx5vvpM?xktJW7xq0Tz8T1zzheEeKU_f52zewl6



Scale = 1:11.8

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 0.14	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	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 3-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

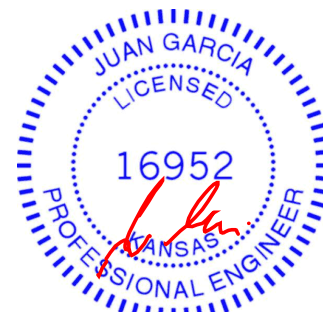
REACTIONS.

(size) 1=3-6-7, 3=3-6-7
Max Horz 1=59(LC 5)
Max Uplift 1=16(LC 8), 3=31(LC 8)
Max Grav 1=128(LC 1), 3=128(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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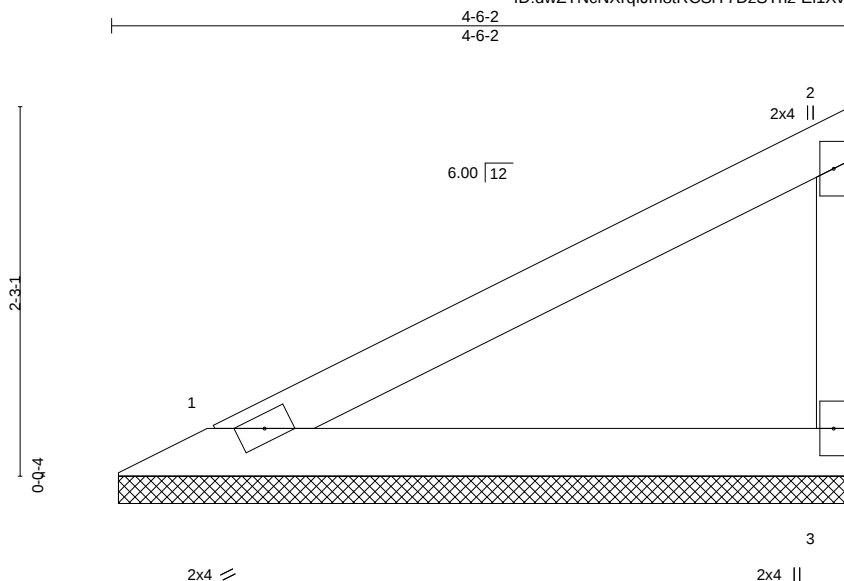
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025249
210367	V15	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:03 2021 Page 1

ID:dwZTNcNXrfJm8tRCSiY7DzSTnz-El1Xvx5vvpM?xktJW7xq0TZ6a1yxheEeKU_f52zewf6



Scale = 1:14.1

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 0.26	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	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: 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 4-6-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-5-10, 3=4-5-10
Max Horz 1=79(LC 5)
Max Uplift 1=22(LC 8), 3=42(LC 8)
Max Grav 1=170(LC 1), 3=170(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

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025250
210367	V16	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

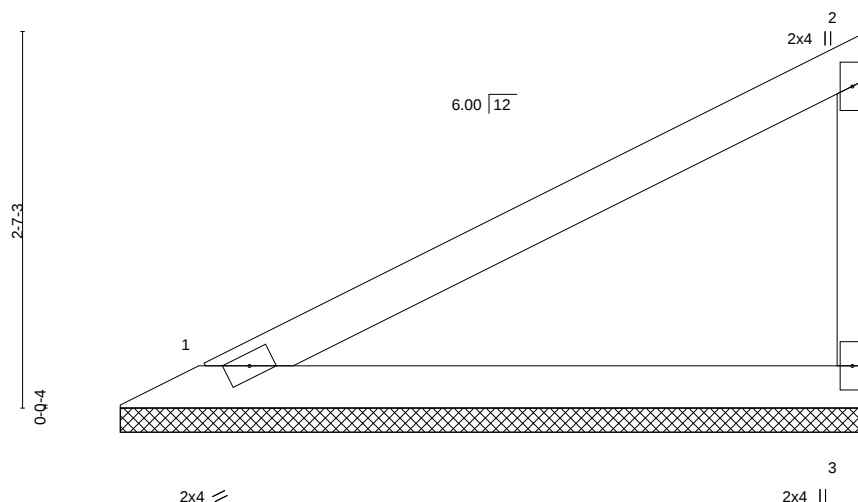
8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:04 2021 Page 1

ID:dwZTNcNXrqJm8tRCSiY7DzSTnz-ixbw6H6Xg7UsZuSW4qS3Zg5GWRHCQ5UnZ8jCdUzewl5

5-2-6

5-2-6

Scale: 3/4"=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 0.38	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 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 13 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-2-6 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=5-1-14, 3=5-1-14
Max Horz 1=93(LC 5)
Max Uplift 1=-26(LC 8), 3=-49(LC 8)
Max Grav 1=201(LC 1), 3=201(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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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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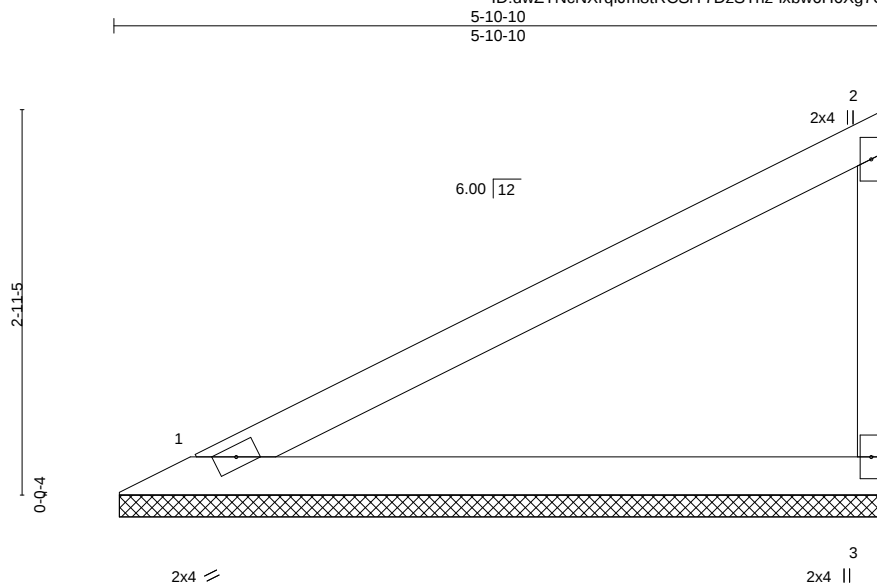
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025251
210367	V17	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:04 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-ixbw6H6Xg7UsZuSW4qS3Zg5DMRG2Q5UnZ8jCdUzewl5



Scale = 1:17.6

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 0.52	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 15 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-10-2, 3=5-10-2
Max Horz 1=107(LC 5)
Max Uplift 1=30(LC 8), 3=57(LC 8)
Max Grav 1=232(LC 1), 3=232(LC 1)

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

NOTES-

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



March 3, 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



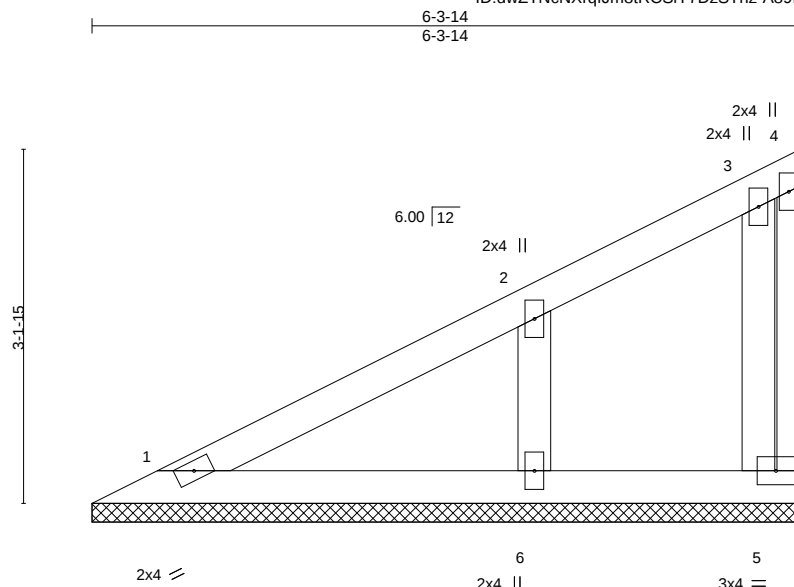
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V18	Truss Type GABLE	Qty 1	Ply 1	Lot 1 H3 I45025252
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:05 2021 Page 1

ID:dwZTNcNXrqfJm8tRCSiY7DzSTnz-A89IKd79RQcjA11ieYzl5ueUurfW9YExnoT19xzewl4



Scale = 1:20.6

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 0.15	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 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 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-3-14, 5=6-3-14, 6=6-3-14
Max Horz 1=117(LC 5)
Max Uplift 5=-23(LC 5), 6=-94(LC 8)
Max Grav 1=122(LC 1), 5=62(LC 1), 6=316(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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 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) 5, 6.
- 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.



March 3, 2021

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

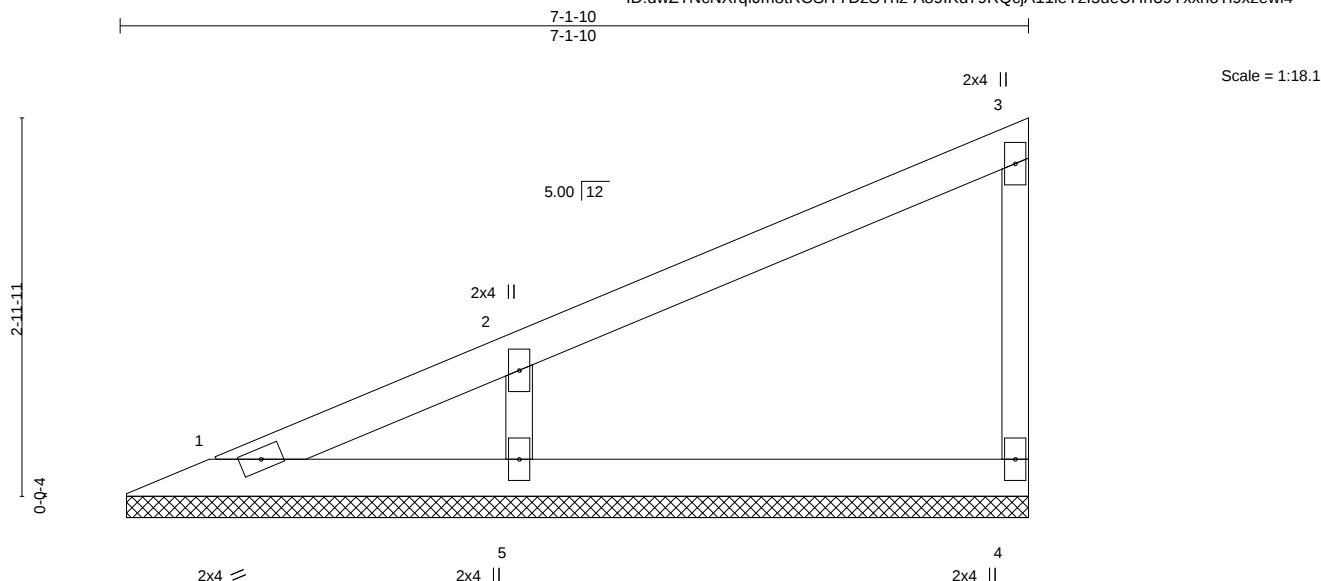


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210367	Truss V19	Truss Type Valley	Qty 1	Ply 1	Lot 1 H3 I45025253
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:05 2021 Page 1
ID:dwZTNcNXrqJm8tRCSiY7DzSTnz-A89IKd79RQcjA11ieYzI5ueUHrf39YxxnoTl9xzewl4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 18 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-1-0, 4=7-1-0, 5=7-1-0
Max Horz 1=115(LC 5)
Max Uplift 4=-27(LC 8), 5=-98(LC 8)
Max Grav 1=62(LC 16), 4=142(LC 1), 5=370(LC 1)

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

WEBS 2-5=-288/148

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, 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.



March 3, 2021

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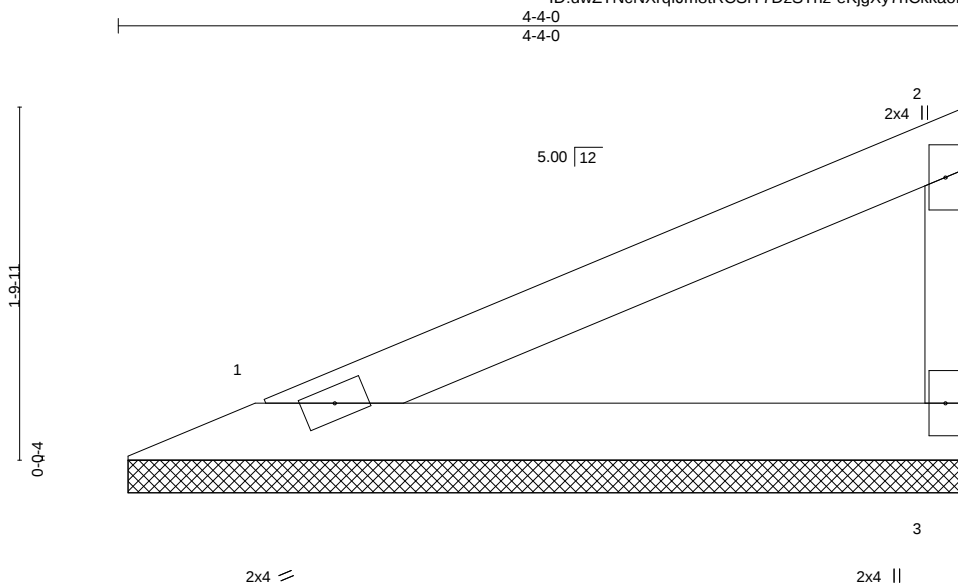
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 1 H3	I45025254
210367	V20	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Feb 12 2021 MiTek Industries, Inc. Tue Mar 2 14:51:06 2021 Page 1

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Scale = 1:11.8

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 0.22	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	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 4-4-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-3-6, 3=4-3-6
Max Horz 1=64(LC 5)
Max Uplift 1=23(LC 8), 3=36(LC 8)
Max Grav 1=156(LC 1), 3=156(LC 1)

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

NOTES-

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



March 3, 2021

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

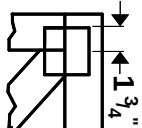
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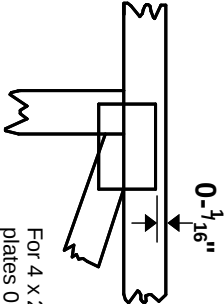
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 X 4

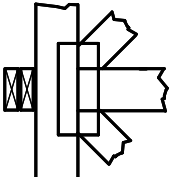
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



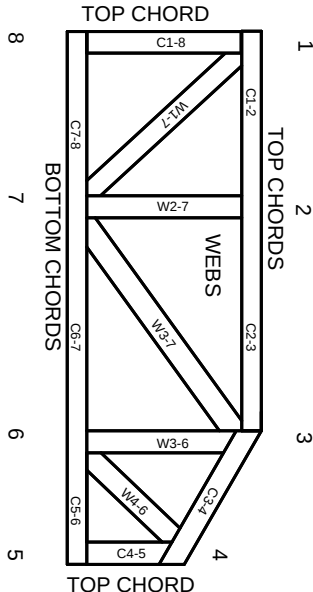
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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