



RE: 210251
Lot 7 H3

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: 210251
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

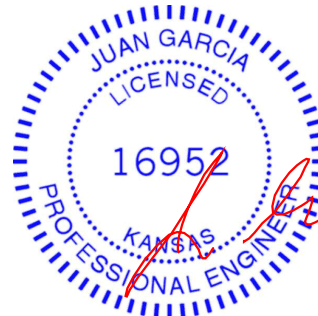
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 40 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43924103	A1	1/22/2021	21	I43924123	D1	1/22/2021
2	I43924104	A2	1/22/2021	22	I43924124	D2	1/22/2021
3	I43924105	A3	1/22/2021	23	I43924125	D3	1/22/2021
4	I43924106	A4	1/22/2021	24	I43924126	P1	1/22/2021
5	I43924107	A5	1/22/2021	25	I43924127	P2	1/22/2021
6	I43924108	A6	1/22/2021	26	I43924128	V1	1/22/2021
7	I43924109	B1	1/22/2021	27	I43924129	V2	1/22/2021
8	I43924110	B2	1/22/2021	28	I43924130	V3	1/22/2021
9	I43924111	B3	1/22/2021	29	I43924131	V4	1/22/2021
10	I43924112	B4	1/22/2021	30	I43924132	V5	1/22/2021
11	I43924113	B5	1/22/2021	31	I43924133	V6	1/22/2021
12	I43924114	C1	1/22/2021	32	I43924134	V7	1/22/2021
13	I43924115	C2	1/22/2021	33	I43924135	V8	1/22/2021
14	I43924116	C3	1/22/2021	34	I43924136	V9	1/22/2021
15	I43924117	C4	1/22/2021	35	I43924137	V10	1/22/2021
16	I43924118	C5	1/22/2021	36	I43924138	V11	1/22/2021
17	I43924119	C6	1/22/2021	37	I43924139	V12	1/22/2021
18	I43924120	C7	1/22/2021	38	I43924140	V13	1/22/2021
19	I43924121	C8	1/22/2021	39	I43924141	V14	1/22/2021
20	I43924122	C9	1/22/2021	40	I43924142	V15	1/22/2021

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.



January 22, 2021



RE: 210251
Lot 7 H3

MiTek USA, Inc.
16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: 210251
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 40 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43924103	A1	1/22/2021	21	I43924123	D1	1/22/2021
2	I43924104	A2	1/22/2021	22	I43924124	D2	1/22/2021
3	I43924105	A3	1/22/2021	23	I43924125	D3	1/22/2021
4	I43924106	A4	1/22/2021	24	I43924126	P1	1/22/2021
5	I43924107	A5	1/22/2021	25	I43924127	P2	1/22/2021
6	I43924108	A6	1/22/2021	26	I43924128	V1	1/22/2021
7	I43924109	B1	1/22/2021	27	I43924129	V2	1/22/2021
8	I43924110	B2	1/22/2021	28	I43924130	V3	1/22/2021
9	I43924111	B3	1/22/2021	29	I43924131	V4	1/22/2021
10	I43924112	B4	1/22/2021	30	I43924132	V5	1/22/2021
11	I43924113	B5	1/22/2021	31	I43924133	V6	1/22/2021
12	I43924114	C1	1/22/2021	32	I43924134	V7	1/22/2021
13	I43924115	C2	1/22/2021	33	I43924135	V8	1/22/2021
14	I43924116	C3	1/22/2021	34	I43924136	V9	1/22/2021
15	I43924117	C4	1/22/2021	35	I43924137	V10	1/22/2021
16	I43924118	C5	1/22/2021	36	I43924138	V11	1/22/2021
17	I43924119	C6	1/22/2021	37	I43924139	V12	1/22/2021
18	I43924120	C7	1/22/2021	38	I43924140	V13	1/22/2021
19	I43924121	C8	1/22/2021	39	I43924141	V14	1/22/2021
20	I43924122	C9	1/22/2021	40	I43924142	V15	1/22/2021

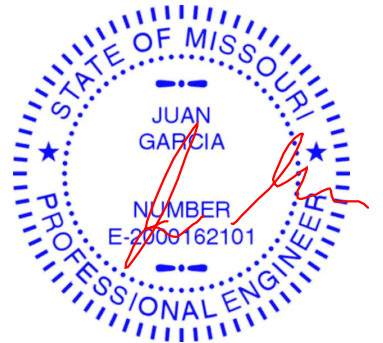
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

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

Missouri COA: 001193

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.



January 22, 2021

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:31 2020 Page 1
ID:Hr0UlovlqMOrZO4rpild7XzssyG-vi6rimfU? gwzEou?u1rv29sRjsPafOL6Za5sovAlks

Plate Offsets (X,Y)-- [28.0-2-8.0-1-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	-0.01	20	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 208 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 19-20, 15-24, 14-25, 13-26, 12-27, 16-23, 17-22, 18-21
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 33-2-8.
(lb) - Max Horz 38=353(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 20, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 23, 22, 21
except 37=-148(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 38, 20, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 37,
23, 22, 21

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-318/41, 3-4=-262/37

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 on one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2'-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" tall by 2'-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) 20, 24, 25, 26, 27, 29, 30, 31, 32, 33, 34, 35, 36, 23, 22, 21 except (jt=lb) 37=148.
- 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.



December 9, 2020

 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

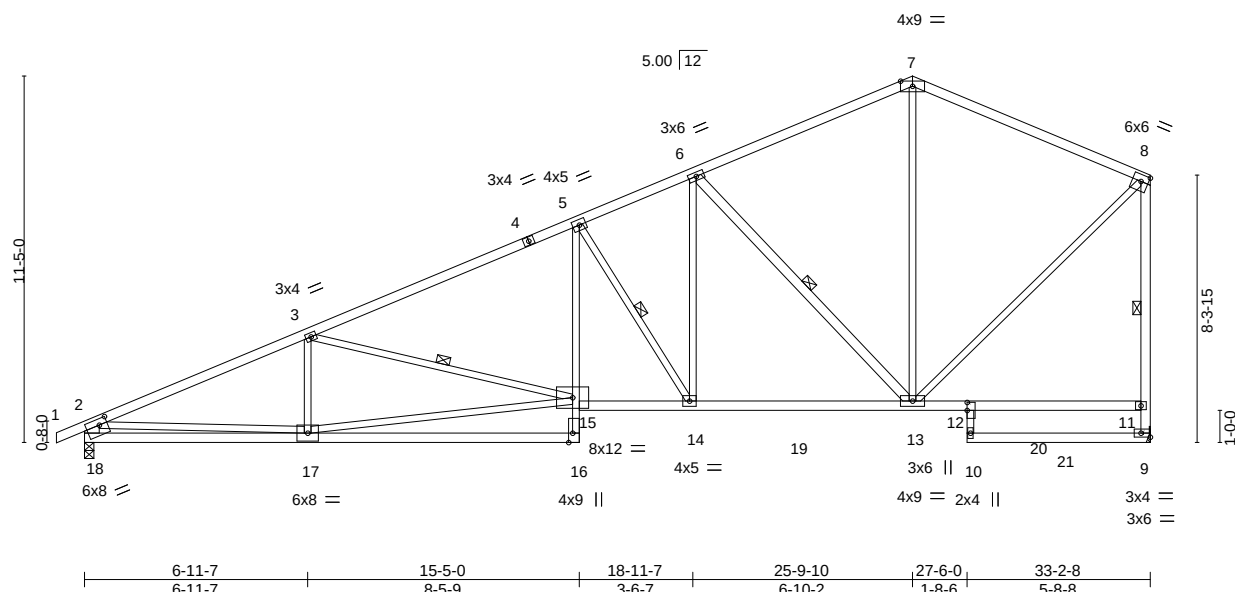
Job 210251	Truss A2	Truss Type Roof Special	Qty 1	Ply 1	Lot 7 H3	I43924104
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:32 2020 Page 1

ID:HrOUlolyIgMORZQ4pild7XzssyG-OvgDw6gmHynbON4ZbY4SFhte62qJvIULDJfPEyAlkr

0-10-8	6-11-7	15-5-0	18-11-7	25-9-10	27-6-0	33-2-8
0-10-8	6-11-7	8-5-9	3-6-7	6-10-2	1-8-6	5-8-8



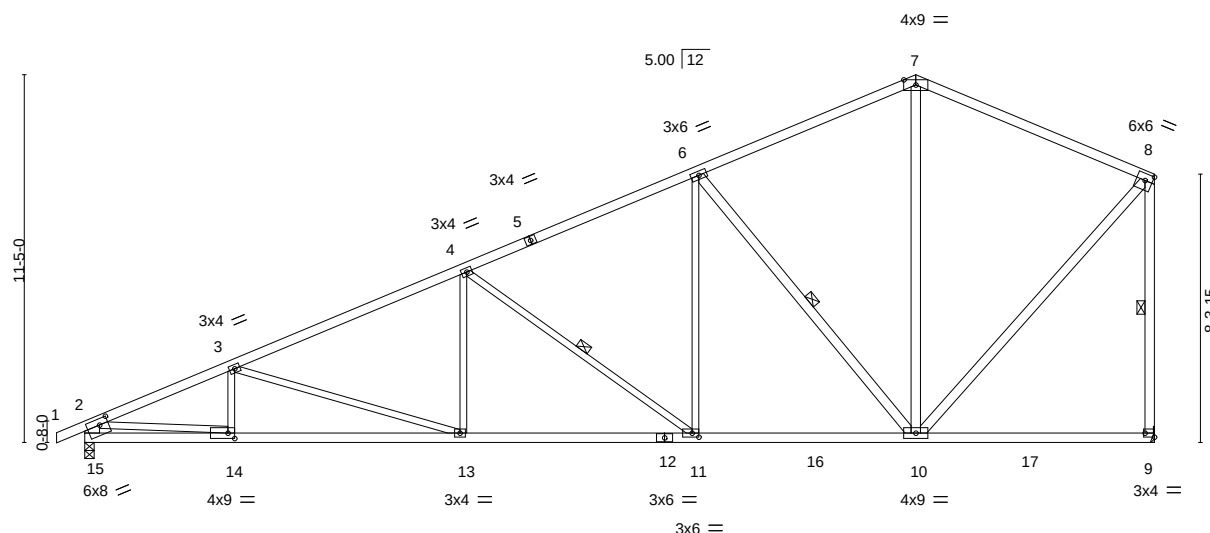
Job 210251	Truss A5	Truss Type Common	Qty 1	Ply 1	Lot 7 H3	I43924107
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:35 2020 Page 1

ID: Hr0UloylgMOrZQ4rpild7XzssyG-oUMMZ8i?3CKMSr6fEj6n4uJooJ0CWKAw1BYJ?ZyAlko

0-10-8	4-6-9	11-9-1	18-11-8	25-9-10	33-2-8
0-10-8	4-6-9	7-2-7	7-2-7	6-10-1	7-4-14



Scale = 1:71.5

4-6-9	11-9-1	18-11-8	25-9-10	33-2-8
4-6-9	7-2-7	7-2-7	6-10-1	7-4-14

Plate Offsets (X,Y)-- [8:Edge,0-2-8], [9:Edge,0-1-8], [11:0-2-8,0-1-8], [14:0-2-8,0-2-0], [15:0-3-4,0-2-4]

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 0.91	Vert(LL)	-0.19 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.35 13-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.08 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 13-14	>999	240	Weight: 154 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-10,7-10,8-9,8-10: 2x4 SPF No.2, 2-15: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-11, 6-10, 8-9

REACTIONS.

(size) 15=0-3-8, 9=Mechanical
Max Horz 15=278(LC 5)
Max Uplift 15=-53(LC 8), 9=-27(LC 8)
Max Grav 15=1607(LC 2), 9=1605(LC 2)

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

TOP CHORD 2-3=-2911/89, 3-4=-2551/96, 4-6=-1789/105, 6-7=-985/108, 7-8=-982/120,
2-15=-1524/71, 8-9=-1455/70
BOT CHORD 14-15=-215/498, 13-14=-176/2640, 11-13=-105/2288, 10-11=-63/1577
WEBS 3-13=-380/75, 4-13=0/382, 4-11=-880/97, 6-11=0/792, 6-10=-1178/130, 7-10=-7/381,
2-14=-49/2153, 8-10=-9/1219

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) 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) 15, 9.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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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



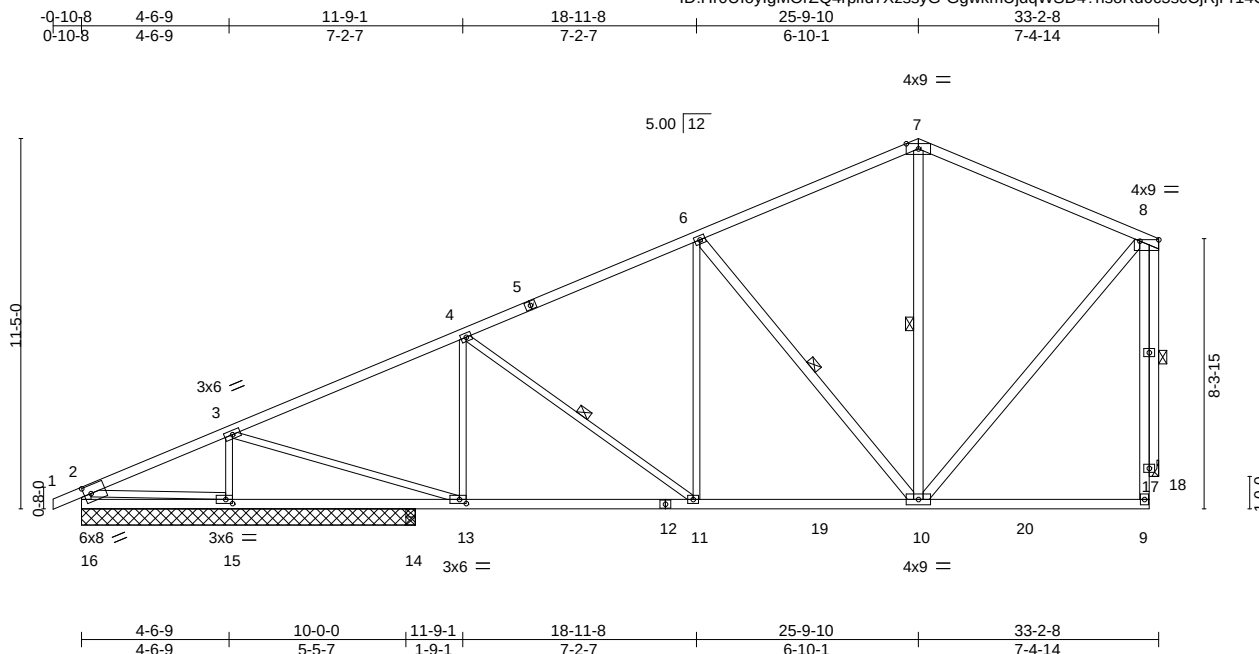
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss A6	Truss Type Roof Special	Qty 1	Ply 1	Lot 7 H3	I43924108
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:36 2020 Page 1

ID:Hr0UloylgMORZQ4rpid7XzssyG-GgwkmUjdqWSD4?hsoRd0c5scCjRjFr14GrHsY?yAlkn



Scale = 1:71.0

Plate Offsets (X,Y)-- [8:Edge,0-0-8], [13:0-2-8,0-1-8], [15:0-2-8,0-1-8], [16:0-2-9,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.12 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.23 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.04 18	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 11-13	>999	240		

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
6-10,7-10,2-16,8-9,8-10: 2x4 SPF No.2
OTHERS 2x4 SPF No.2

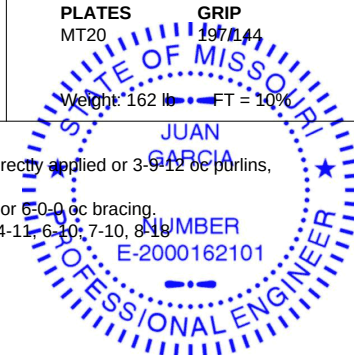
BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 4-11, 6-10, 7-10, 8-18

REACTIONS. All bearings 10-3-8 except (jt=length) 14=0-3-8, 18=Mechanical.
(lb) - Max Horz 16=361(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 14 except 15=-305(LC 8), 18=-177(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 16 except 15=1415(LC 2), 14=259(LC 2), 18=1313(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-1369/158, 4-6=-1313/188, 6-7=-801/151, 7-8=-795/170
BOT CHORD 15-16=-292/61, 11-13=-347/1192, 10-11=-252/1138
WEBS 3-15=-1293/364, 3-13=-187/1262, 4-13=-408/152, 6-11=0/360, 6-10=-765/249, 8-10=-156/906, 8-18=-1314/177

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 3x4 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.
- 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) 14 except (jt=lb) 15=305, 18=177.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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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 210251	Truss B1	Truss Type Roof Special	Qty 3	Ply 1	Lot 7 H3	I43924109
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:37 2020 Page 1

ID:Hr0UioyIgMOrZQ4rpild7XzssyG-ksT6zqjFbqa4h9G2L88F9JPl7oX_GaDVV1Q4RyAlkm

0-10-8	4-6-12	9-11-8	18-11-8	25-9-10	33-2-8
0-10-8	4-6-12	5-4-12	9-0-0	6-10-2	7-4-14

4x9 =

Scale = 1:69.9

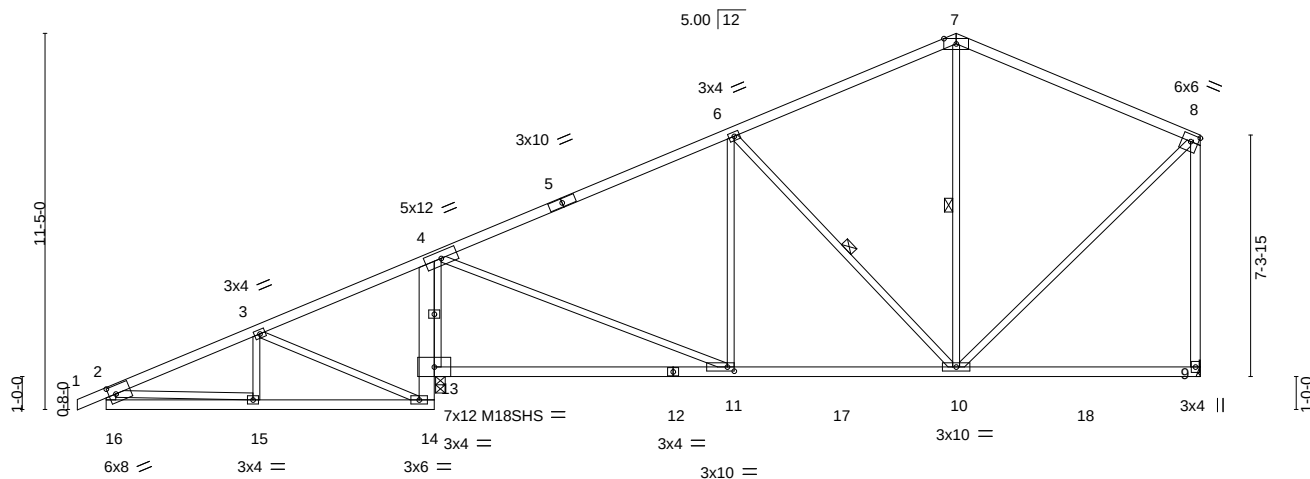


Plate Offsets (X,Y)--	[8:Edge,0-2-8], [11:0-2-8,0-1-8], [16:0-2-9,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.91	Vert(LL)	-0.18 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.35 11-13	>807	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	-0.01 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	-0.02 9-10	>999	240		
								Weight: 147 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-14: 2x6 SP DSS
WEBS 2x3 SPF No.2 *Except*
2-16,8-9: 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 4-6-1 oc bracing.
WEBS 1 Row at midpt 6-10, 7-10

REACTIONS.

(size) 13=0-3-8 (req. 0-3-9), 9=Mechanical
Max Horz 13=265(LC 5)
Max Uplift 13=180(LC 4), 9=-20(LC 9)
Max Grav 13=2262(LC 2), 9=942(LC 2)

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

TOP CHORD 2-3=-113/556, 3-4=-217/1226, 4-6=-704/45, 6-7=-561/84, 7-8=-554/94, 8-9=-791/56
BOT CHORD 14-15=-454/123, 13-14=-72/339, 4-13=-1796/154, 11-13=-1193/285, 10-11=-96/577
WEBS 3-15=-59/263, 3-14=-680/147, 4-11=-120/1794, 6-11=-461/150, 2-15=-498/118, 8-10=-17/581

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
- 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 greater than input bearing size.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 13=180.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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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 210251	Truss B2	Truss Type Roof Special	Qty 4	Ply 1	Lot 7 H3	I43924110
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:38 2020 Page 1

ID:Hr0U0loylgMOrZQ4rpild7XzssyG-C31UB9ktM7ixJJrEvsfUhwXxqX8djlMk9mzcuyAlkl

0-10-8	4-6-12	9-11-8	18-11-8	25-9-10	33-6-0
0-10-8	4-6-12	5-4-12	9-0-0	6-10-2	7-8-6

4x9 =

Scale = 1:70.1

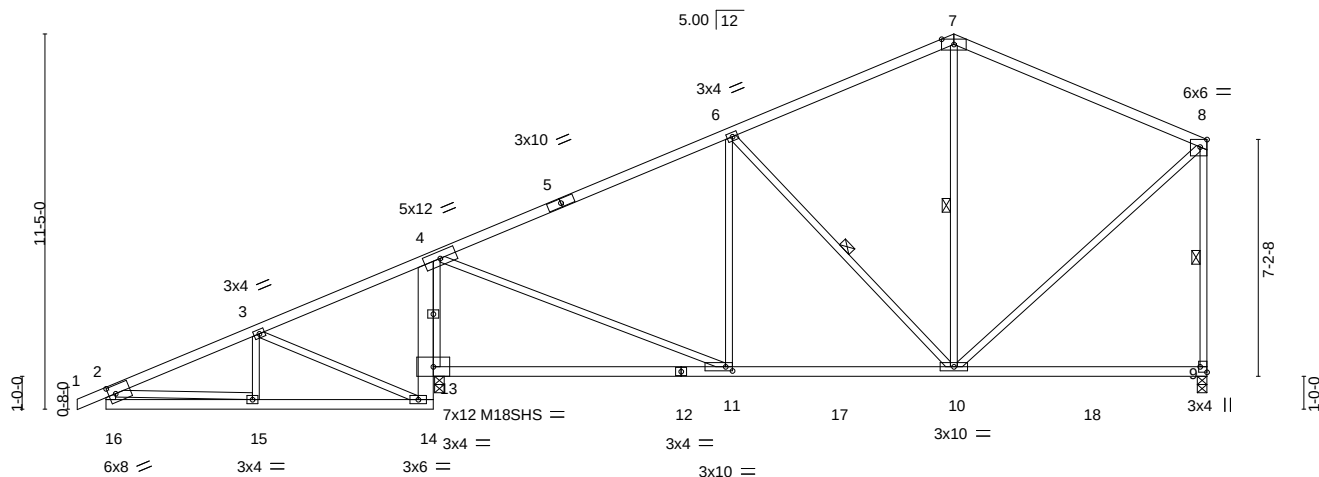


Plate Offsets (X, Y)--	[8:0-2-8,Edge], [9:Edge,0-2-8], [11:0-2-8,0-1-8], [16:0-2-9,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.18 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.35 11-13	>807	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	-0.01 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	-0.04 9-10	>999	240		
								Weight: 146 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-14: 2x6 SP DSS
WEBS 2x3 SPF No.2 *Except*
2-16: 2x4 SPF No.2

BRACING-

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

REACTIONS.

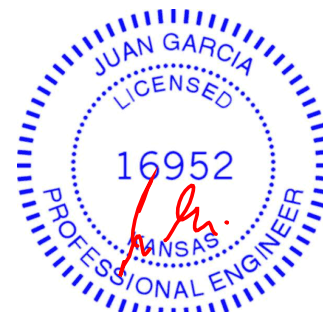
(size) 13=0-3-8 (req. 0-3-9), 9=0-3-8
Max Horz 13=330(LC 5)
Max Uplift 13=382(LC 4), 9=119(LC 9)
Max Grav 13=2275(LC 2), 9=961(LC 2)

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

TOP CHORD 2-3=-163/556, 3-4=-321/1226, 4-6=-704/107, 6-7=-586/152, 7-8=-564/168,
8-9=-808/152
BOT CHORD 14-15=-454/178, 13-14=-99/339, 4-13=-1808/378, 11-13=-1170/367, 10-11=-160/559
WEBS 3-15=-68/263, 3-14=-680/220, 4-11=-254/1808, 6-11=-468/199, 2-15=-498/178,
8-10=-64/605

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 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 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=382, 9=119.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

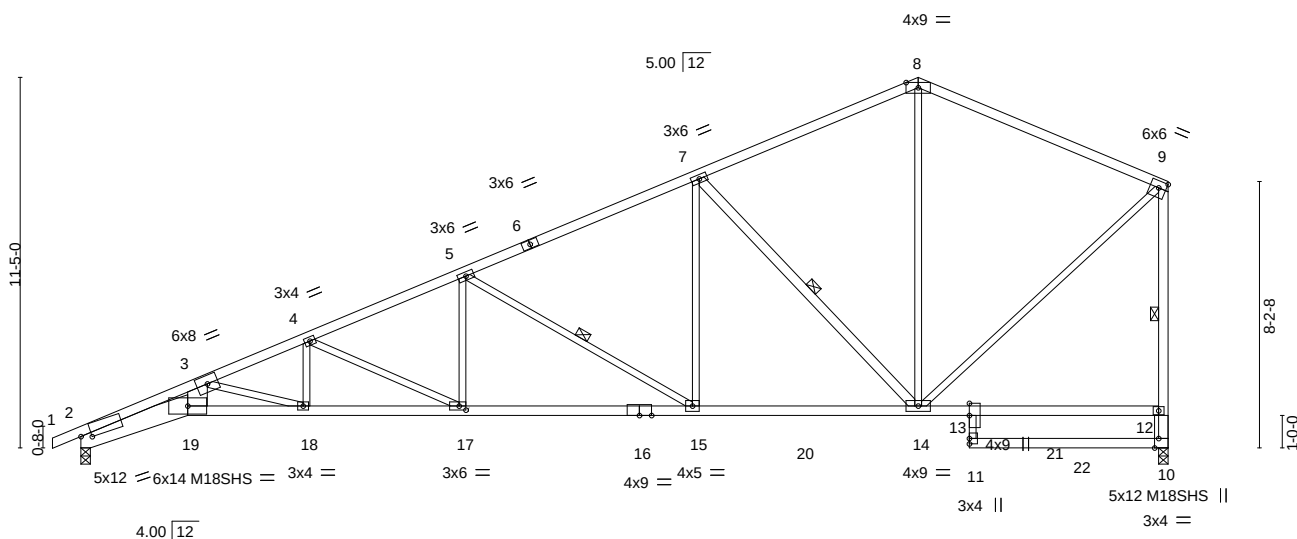
Job 210251	Truss B3	Truss Type Roof Special	Qty 2	Ply 1	Lot 7 H3	I43924111
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:39 2020 Page 1

ID: Hr0UloylgMOrZQ4rpild7XzssyG-gFbsOVIV7RqoxSPQTZAJEkU6nwOhS8pWypWW8KyAlkk

0-10-8	3-3-8	6-11-7	11-9-2	18-11-6	25-9-10	27-4-8	33-6-0
0-10-8	3-3-8	3-7-15	4-9-11	7-2-5	6-10-4	1-6-14	6-1-8



Scale = 1:71.0

Plate Offsets (X,Y)--	[2:0-3-15,0-1-6], [9:Edge,0-2-8], [10:0-3-8,Edge], [13:0-4-8,0-0-0], [17:0-2-8,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.33 18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.58 15-17	>692	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.28 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.25 18-19	>999	240	Weight: 157 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
6-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-19: 2x8 SP DSS, 16-19: 2x4 SPF 2100F 1.8E, 11-13: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-19: 2x8 SP DSS, 9-10,7-14: 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 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-15, 9-10, 7-14

REACTIONS.

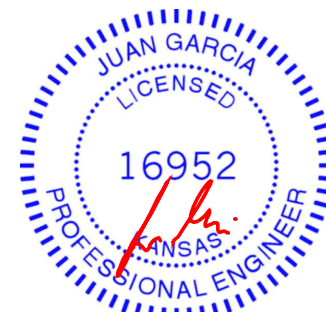
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=341(LC 7)
Max Uplift 2=-253(LC 8), 10=-196(LC 8)
Max Grav 2=1628(LC 2), 10=1743(LC 2)

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

TOP CHORD 2-3=-7119/1270, 3-4=-4154/675, 4-5=-3154/504, 5-7=-2095/350, 7-8=-1139/239,
8-9=-1138/257, 10-12=-1595/235, 9-12=-1495/243
BOT CHORD 2-19=-1362/6559, 18-19=-1161/5495, 17-18=-741/3836, 15-17=-509/2870,
14-15=-257/1864, 12-13=-260/104
WEBS 3-19=-383/2147, 5-17=-30/660, 5-15=-1168/293, 7-15=-63/882, 9-14=-163/1296,
4-17=-1068/257, 4-18=-55/541, 3-18=-1712/433, 8-14=-50/486, 7-14=-1304/335

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 MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=253, 10=196.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	I43924112
210251	B4	Roof Special	2	1		

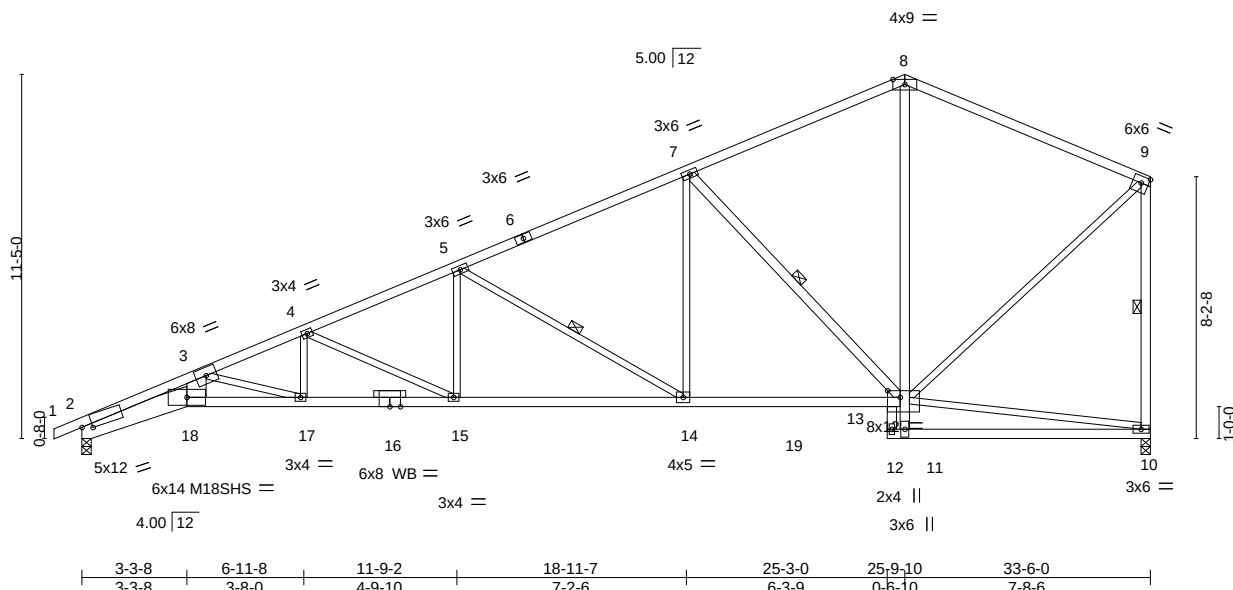
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:40 2020 Page 1

ID: HrOUloylgMOrZQ4rpild7XzssyG-9R9Fcm7ulyfYc_d1Hiynx1GdKk2Bb6fBTF4hmyAlkj

0-10-8	3-3-8	6-11-8	11-9-2	18-11-7	25-3-0	25-9-10	33-2-8	33-6-0
0-10-8	3-3-8	3-8-0	4-9-10	7-2-6	6-3-9	0-6-10	7-4-14	0-3-8

Scale = 1:72.2



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 0.77	Vert(LL)	-0.32 17-18	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.57 17-18	>704	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.27 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.25 17-18	>999	240	Weight: 162 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
6-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-18: 2x8 SP DSS, 16-18,13-16: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
3-18: 2x8 SP DSS, 7-13,8-11,9-10: 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-14, 7-13, 9-10

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=341(LC 7)
Max Uplift 2=252(LC 8), 10=195(LC 8)
Max Grav 2=1615(LC 2), 10=1567(LC 2)

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

TOP CHORD 2-3=-7056/1270, 3-4=-4112/674, 4-5=-3115/504, 5-7=-2063/349, 7-8=-1132/249, 8-9=-1115/266, 9-10=-1432/237
BOT CHORD 2-18=-1362/6501, 17-18=-1161/5446, 15-17=-740/3797, 14-15=-508/2834, 13-14=-256/1835, 12-13=-534/0
WEBS 3-18=-383/2128, 3-17=-1702/434, 4-17=-54/540, 4-15=-1064/256, 5-15=-31/654, 5-14=-1161/294, 7-14=-61/897, 7-13=-1307/329, 11-13=0/748, 8-13=-59/475, 10-13=-265/34, 9-13=-149/1247

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 MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=252, 10=195.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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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 7 H3	I43924113
210251	B5	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:41 2020 Page 1

ID: Hr0UloylgMOrZQ4rpild7XzssyG-ddjdpBnmf24WAmZpa_DBJ9ZSuk3Sw2cpQ6?dDDyAlki

Job Reference (optional)

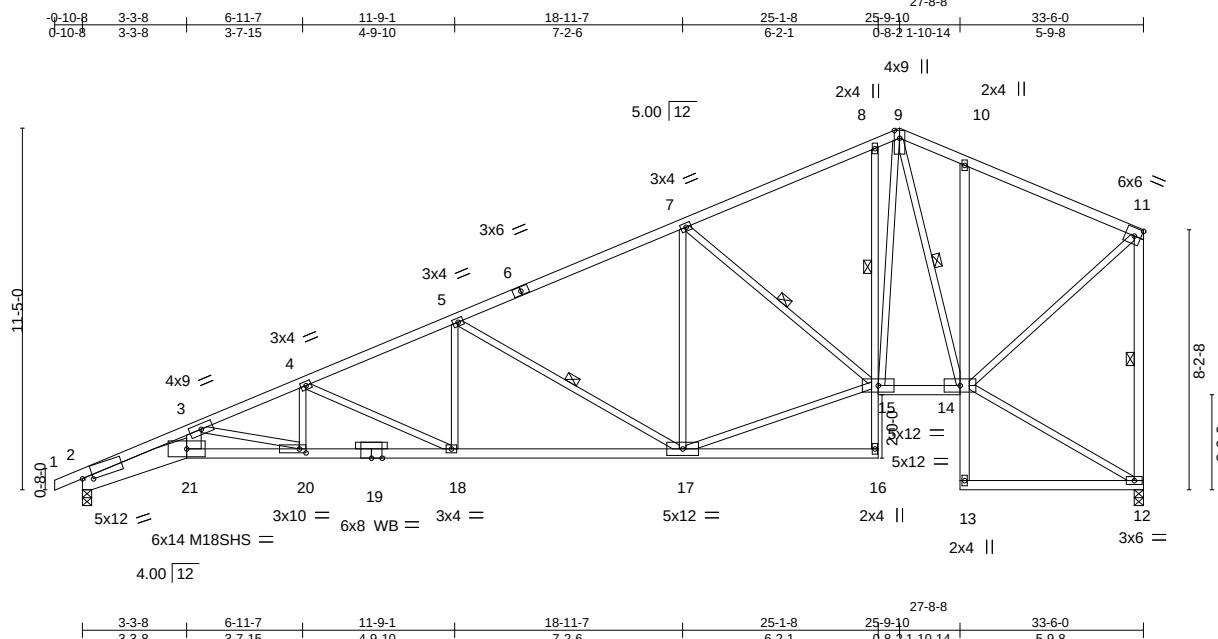


Plate Offsets (X,Y)-- [2:0-3-15,0-1-6], [20:0-2-8,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.31 20-21 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.56 20-21 >711 240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.32 12 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.26 20-21 >999 240	Weight: 177 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-6: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-21: 2x8 SP DSS, 19-21,12-13: 2x4 SPF 2100F 1.8E
8-16: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-21: 2x6 SPF No.2, 11-12: 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-10-4 oc bracing. Except:
1 Row at midpt 8-15
WEBS 1 Row at midpt 5-17, 7-15, 9-14, 11-12

REACTIONS.

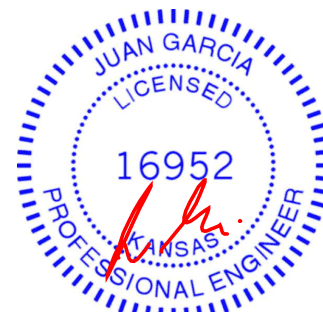
(size) 2=0-3-8, 12=0-3-8
Max Horz 2=341(LC 7)
Max Uplift 2=-253(LC 8), 12=-196(LC 8)
Max Grav 2=1567(LC 1), 12=1493(LC 1)

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

TOP CHORD 2-3=-6692/1259, 3-4=-3936/674, 4-5=-2989/505, 5-7=-1969/348, 7-8=-1399/275,
8-9=-1312/332, 9-10=-1094/252, 10-11=-1115/224, 11-12=-1440/196
BOT CHORD 2-21=-1351/6141, 20-21=-1181/5317, 18-20=-740/3634, 17-18=-511/2710,
14-15=-178/1077, 10-14=-352/198
WEBS 3-21=-369/1918, 3-20=-1731/453, 4-20=-53/463, 4-18=-1021/253, 5-18=-29/548,
5-17=-1138/300, 7-17=0/310, 15-17=-267/1790, 7-15=-733/244, 9-15=-338/1289,
9-14=-560/111, 11-14=-154/1293

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 MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=253, 12=196.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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Chesterfield, MO 63017

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:43 2020 Page 1
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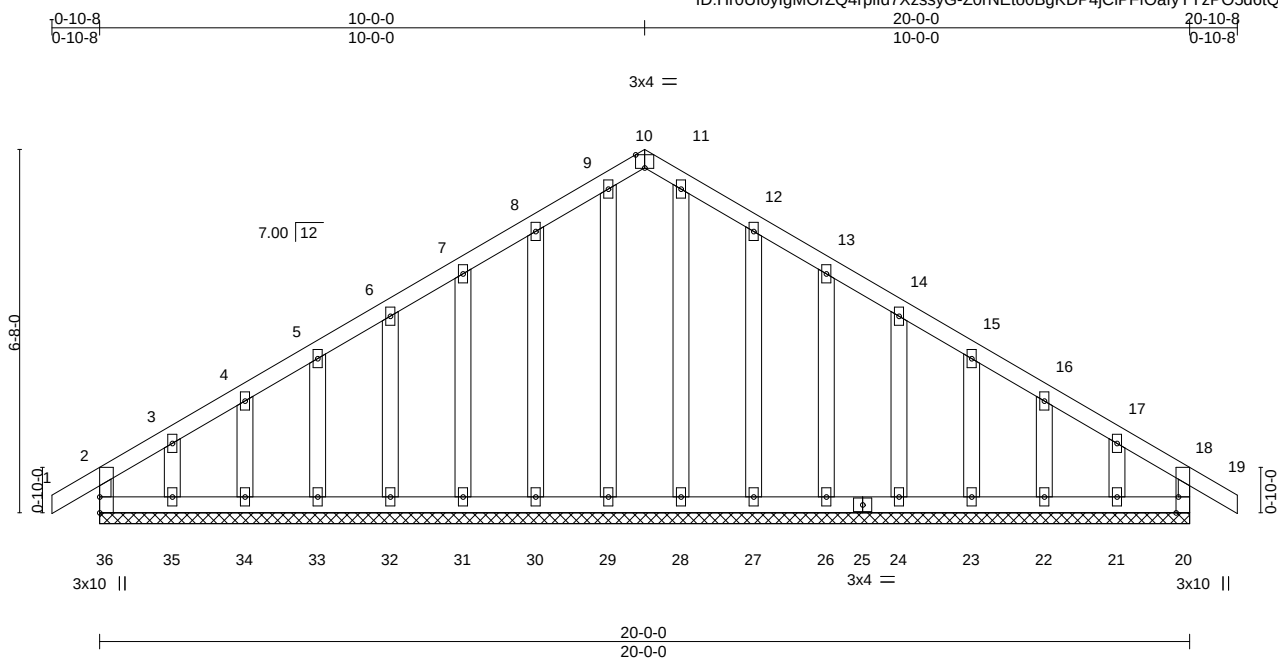


Plate Offsets (X,Y)-- [10:0-2-0,Edge], [20:0-3-8,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	-0.00	19	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	19	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 107 lb	FT = 10%

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

REACTIONS. All bearings 20-0-0.
(lb) - Max Horz 36--188(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 36, 20, 34, 33, 32, 31, 30, 27, 26, 24, 23, 22, 21 except
35--101(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 36, 20, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 24, 23, 22,
21

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 on one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 1-4-0 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) 36, 20, 34, 33, 32, 31, 30, 27, 26, 24, 23, 22, 21 except (jt=lb) 35=101.
- 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.



December 9, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	I43924115
210251	C2	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID: Hr0UloylgMOrZQ4rpild7XzssyG-Z0rNEto0BgKDP4jCiPffOafmlYofO3t6tQUkH5yAlkg

0-10-8 4-9-0 10-0-0 15-2-15 20-0-0 20-10-8
0-10-8 4-9-0 5-2-15 5-3-0 4-9-1 0-10-8

4x9 =

Scale = 1:41.5

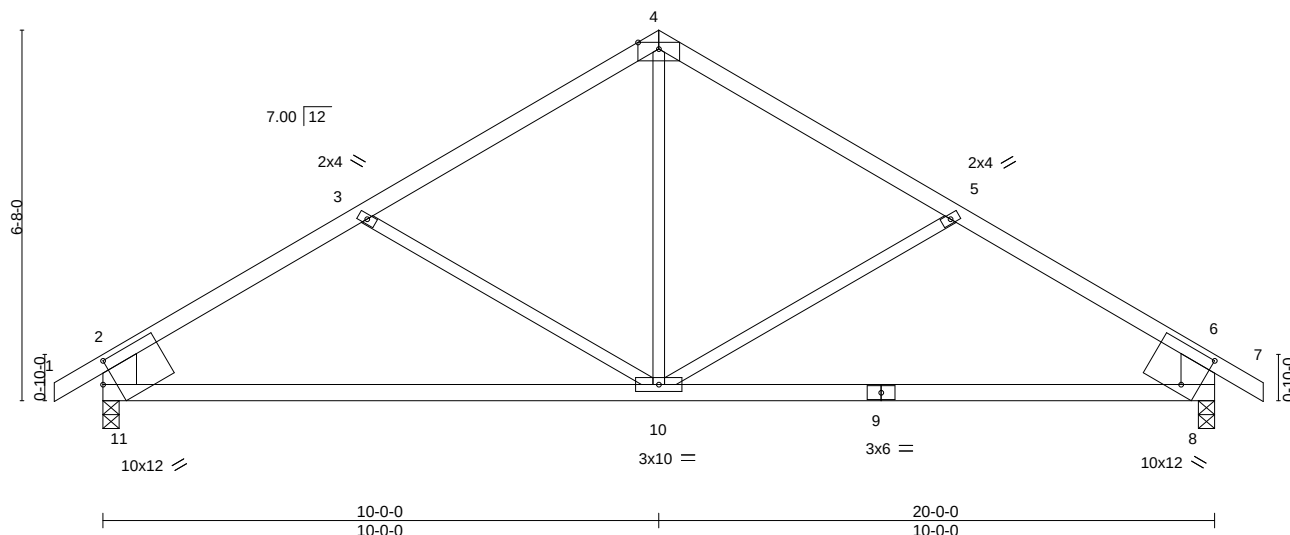


Plate Offsets (X,Y)-- [8:0-3-11,0-8-1], [11:0-2-9,0-4-7]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.17	8-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.35	8-10	>667	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06	10	>999	240	Weight: 70 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-11,6-8: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 11=0-3-8
Max Horz 11=-192(LC 6)
Max Uplift 8=-130(LC 9), 11=-130(LC 8)
Max Grav 8=955(LC 1), 11=955(LC 1)

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

TOP CHORD 2-3=-1148/182, 3-4=-875/141, 4-5=-875/141, 5-6=-1148/183, 2-11=-852/178,
6-8=-852/178
BOT CHORD 10-11=-167/901, 8-10=-79/881
WEBS 4-10=-6/460, 5-10=-255/206, 3-10=-254/206

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) 8=130, 11=130.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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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 210251	Truss C3	Truss Type GABLE	Qty 1	Ply 1	Lot 7 H3	I43924116
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Wheeler Lumber, Waverly, KS 66871, Mitek

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 14:50:58 2020 Page 1
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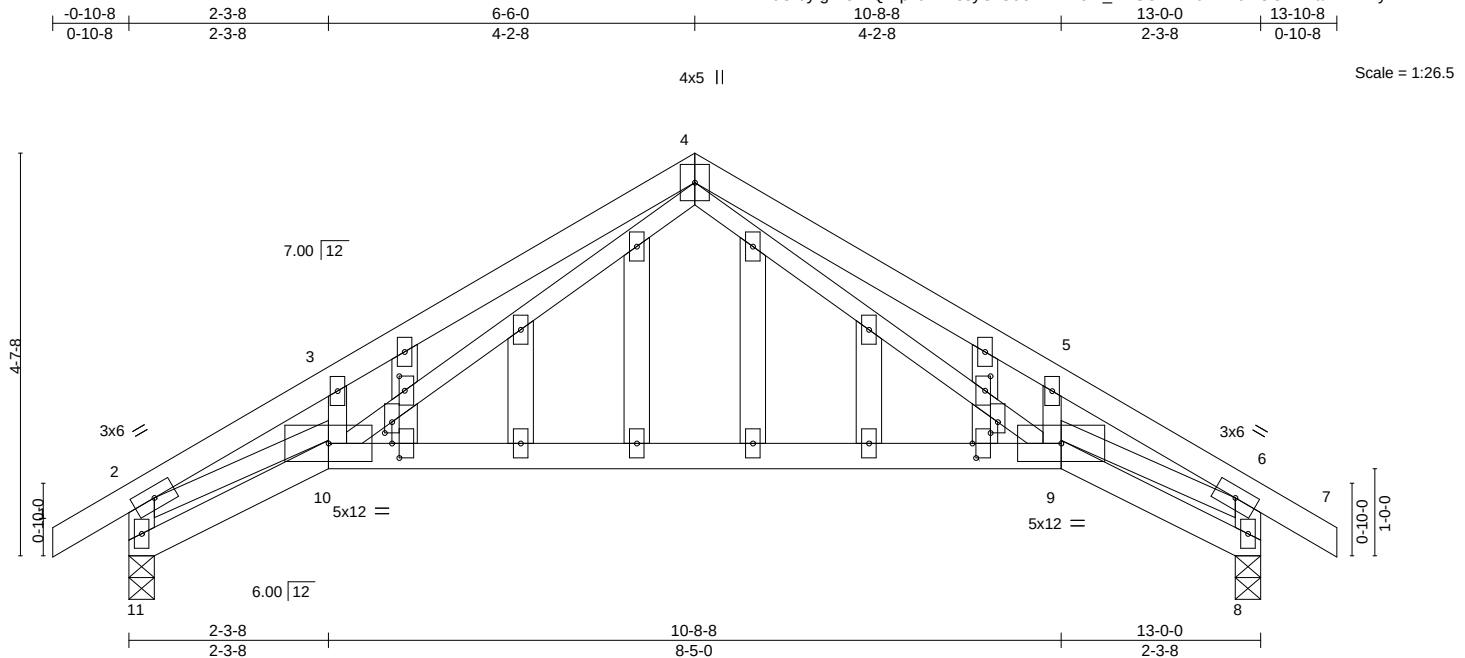


Plate Offsets (X,Y)-- [12:0-1-8,0-1-0], [12:0-2-0,0-0-12], [14:0-2-0,0-1-0], [24:0-2-0,0-0-8], [25:0-1-8,0-1-0], [25:0-2-0,0-0-12]

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	0.30	Vert(LL)	-0.20 9-10	>747	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.44 9-10	>348	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.10 8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 9-10	>999	240		
										Weight: 61 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-6-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except*	
2-11,6-8: 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	
REACTIONS. (lb/size) 11=643/0-3-8, 8=643/0-3-8	
Max Horz 11=-138(LC 6)	
Max Uplift 11=-90(LC 8), 8=-90(LC 9)	

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1422/165, 3-4=-1433/288, 4-5=-1433/221, 5-6=-1422/96, 2-11=-669/108, 6-8=-669/81
BOT CHORD 9-10=-23/526
WEBS 4-9=-143/857, 4-10=-196/945, 2-10=-100/1125, 6-9=-43/1125

- 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 studs spaced at 1-4-0 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) Bearing at joint(s) 11, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 90 lb uplift at joint 11 and 90 lb uplift at joint 8.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:48 2020 Page 1
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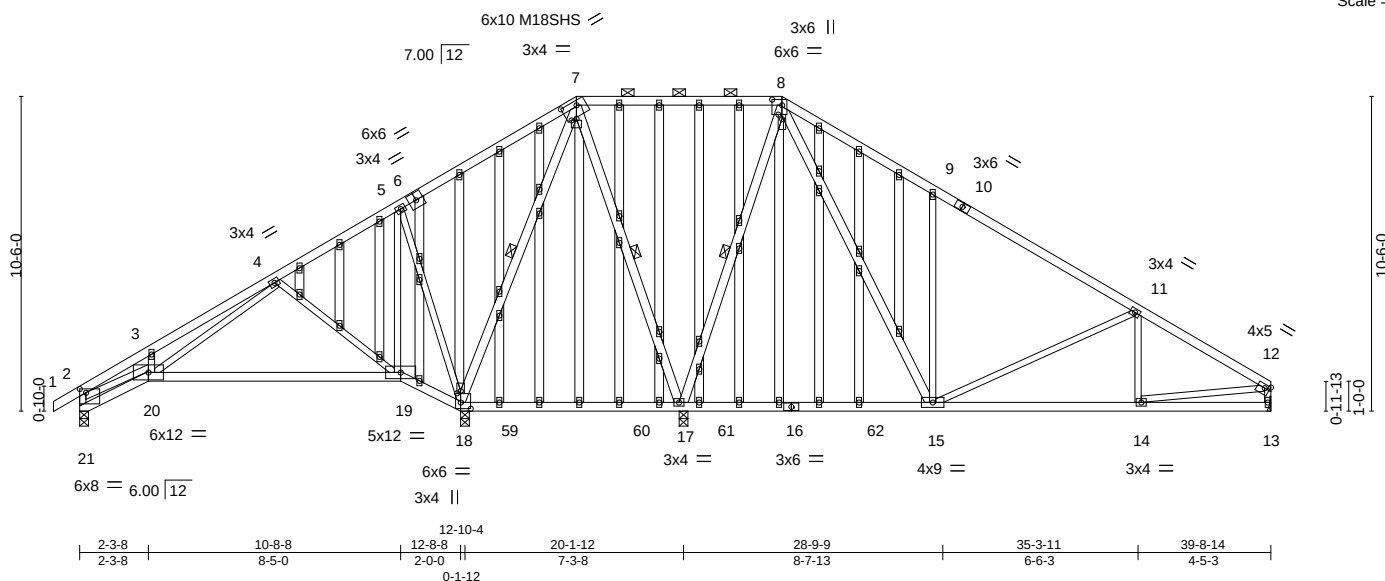


Plate Offsets (X,Y)--														
0-12 [7:0-6-4,0-1-12], [7:0-2-0,0-0-11], [8:0-4-0,0-2-4], [8:0-1-13,0-1-8], [12:Edge,0-1-8], [18:0-0-14,0-1-8], [18:0-4-0,0-2-8], [21:0-2-8,0-1-8]														
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP				
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.18	19-20	>839	360	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.37	19-20	>411	240	M18SHS	197/144		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.03	18	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	14-15	>999	240	Weight: 325 lb	FT = 10%		

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-7-1 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 7-8.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except*	WEBS	1 Row at midpt
	7-18,7-17,8-17,8-15: 2x4 SPF No.2		7-18, 7-17, 8-17
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 0-3-8 except (jt=length) 13=Mechanical.
(lb) - Max Horz 21=287(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 21 except 18=-329(LC 8), 17=-146(LC 9), 13=-138(LC 9)
Max Grav All reactions 250 lb or less at joint(s) except 21=344(LC 21), 18=1391(LC 15), 17=1750(LC 2),
13=739(LC 16)

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

TOP CHORD 2-3=-650/667, 3-4=-699/183, 4-5=-133/710, 5-7=-80/880, 7-8=0/578, 8-9=-516/358, 9-11=-510/187, 11-12=-948/204, 12-21=-362/74, 12-13=-674/155

BOT CHORD 20-21=-304/322, 19-20=-255/132, 18-19=-517/196, 17-18=-476/198, 14-15=-136/755

WEBS 20-24=248/1032, 12-19=-430/187, 5-19=-18/262, 5-18=-590/193, 7-18=-559/171, 7-17=-387/772, 8-17=-1108/194, 8-15=-294/1125, 9-15=-465/279, 11-15=-544/184, 2-20=17/515, 12-14=-116/687

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 1-4-0 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, with BCDL = 10.0psf.
- 10) Refer to girder(s) for truss to truss connections.
- 11) Bearing at joint(s) 21 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21 except (jt=lb) 18=329, 17=146, 13=138.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9, 2020

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	I43924117
210251	C4	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:48 2020 Page 2
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NOTES-

14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

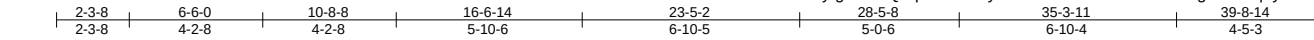
Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	I43924118
210251	C5	Piggyback Base	3	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:49 2020 Page 1

ID:Hr0UloylgMOrZQ4rpild7XzssyG-OACeVwtmW5N7?AL2gM3eruqdyt5ofO_FMx2VlyAlka

Job Reference (optional)



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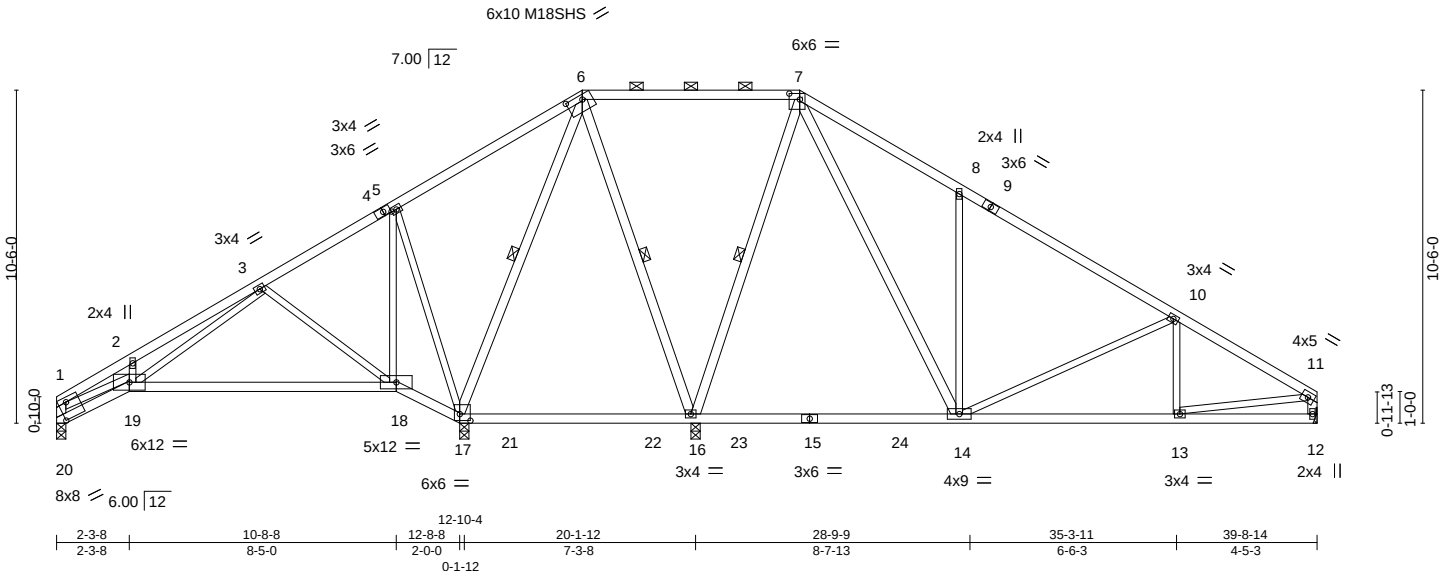


Plate Offsets (X,Y)-- [4:0-2-12,0-1-8], [6:0-6-4,0-1-12], [7:0-4-0,0-2-4], [17:0-4-0,0-2-8], [20:0-3-0,0-6-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.76	Vert(LL)	-0.18 18-19 >839	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.37 18-19 >410	240	M18SHS 197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.03 17 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 13-14 >999	240	Weight: 185 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 6-17,6-16,7-16,7-14,1-20,11-12: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-6 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 6-7.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 6-17, 6-16, 7-16

REACTIONS.

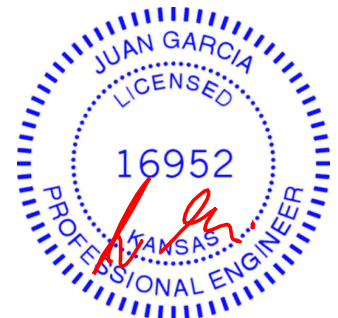
All bearings 0-3-8 except (jt=length) 12=Mechanical.
 (lb) - Max Horz 20=277(LC 5)
 Max Uplift All uplift 100 lb or less at joint(s) 20 except 17=-327(LC 8), 16=-144(LC 9), 12=-138(LC 9)
 Max Grav All reactions 250 lb or less at joint(s) except 20=288(LC 16), 17=1390(LC 15), 16=1743(LC 2), 12=741(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-676/67, 2-3=-726/183, 3-5=-132/700, 5-6=-78/871, 6-7=0/570, 7-8=-522/358, 8-10=-514/187, 10-11=-945/202, 1-20=-309/48, 11-12=-675/155
 BOT CHORD 19-20=-299/326, 17-18=-510/195, 16-17=-470/197, 13-14=-136/753
 WEBS 3-19=-243/1039, 3-18=-438/189, 5-18=-18/265, 5-17=-597/195, 6-17=-557/168, 6-16=-382/70, 7-16=-1103/193, 7-14=-294/1122, 8-14=-466/279, 10-14=-535/183, 1-19=-25/524, 11-13=-115/677

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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 20 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) 20 except (jt=lb) 17=327, 16=144, 12=138.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 9,2020

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 7 H3	I43924119
210251	C6	Piggyback Base	2	1		

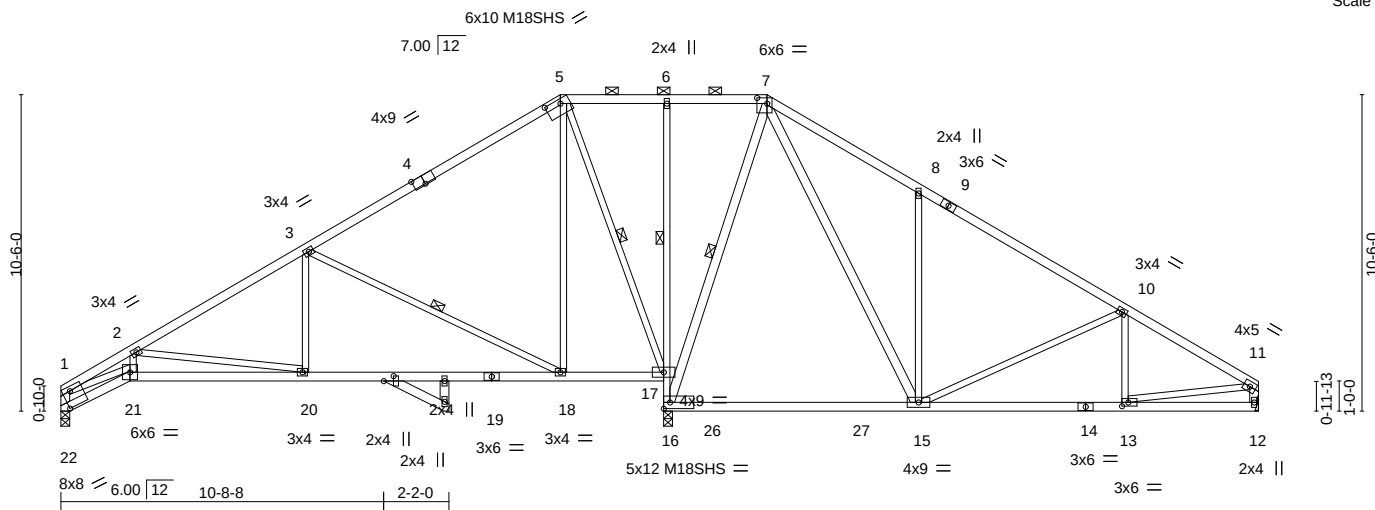
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:51 2020 Page 1

ID: Hr0UloylgMOrZQ4rpild7XzssyG-KZKPvcu17L5NIkka5OXjG_8gmWzGWRHjgQ9adyAlkY

2-3-8	8-1-6	16-6-14	20-0-0	23-5-2	28-5-8	35-3-11	39-8-14
2-3-8	5-9-14	8-5-7	3-5-2	3-5-2	5-0-6	6-10-4	4-5-3

Scale = 1:76.5



2-3-8	8-1-6	16-6-14	20-0-0	20-1-12	28-9-9	35-3-11	39-8-14
2-3-8	5-9-14	8-5-7	3-5-2	0-1-12	8-7-13	6-6-3	4-5-3

Plate Offsets (X,Y)-- [4:0-4-8,Edge], [5:0-6-4,0-1-12], [7:0-4-0,0-2-4], [13:0-2-8,0-1-8], [22:0-3-0,0-6-4], [23:0-2-0,0-3-15]

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 0.85	Vert(LL)	-0.27 15-16	>879	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.42 15-16	>557	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.02 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 20-21	>999	240		
								Weight: 185 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 6-16: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 7-16,7-15,1-22,11-12,24-25: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 5-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 3-8-2 oc bracing: 16-17
 6-0-0 oc bracing: 15-16.
 1 Row at midpt 6-17
 1 Row at midpt 3-18, 5-17, 7-16

REACTIONS.

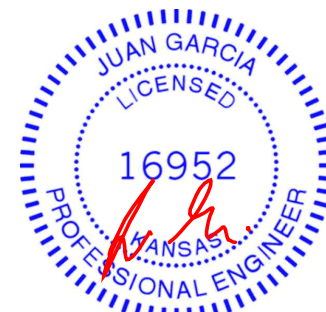
(size) 22=0-3-8, 16=0-3-8, 12=Mechanical
 Max Horz 22=221(LC 5)
 Max Uplift 22=-28(LC 8), 12=-75(LC 9)
 Max Grav 22=881(LC 13), 16=2051(LC 13), 12=962(LC 14)

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

TOP CHORD 1-2=-2415/188, 2-3=-1278/94, 3-5=-437/163, 7-8=-936/283, 8-10=-900/166,
 10-11=-1273/133, 1-22=-953/82, 11-12=-886/95
 BOT CHORD 21-22=-234/342, 20-21=-229/2127, 18-20=-84/1207, 16-17=-1160/87, 6-17=-264/71,
 13-15=-81/1038
 WEBS 2-21=-57/558, 2-20=-932/147, 3-20=0/449, 3-18=-1094/154, 5-18=0/688, 5-17=-1045/42,
 7-16=-832/19, 7-15=-119/1136, 8-15=-464/172, 10-15=-445/86, 1-21=-136/1913,
 11-13=-72/943

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.
- The Fabrication Tolerance at joint 5 = 0%
- 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) 22 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) 22, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 9,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	143924120
210251	C7	Piggyback Base	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:Hr0UloylgMOrZQ4rpild7XzssyG-oltn7yvf3RTy?SvwkovmGTWPQAt1?78QyKAi64yAlkX

Job Reference (optional)

4-8-4	8-3-6	13-3-2	16-6-14	20-0-0	23-5-2	28-5-8	35-3-11	39-8-14
4-8-4	3-7-2	4-11-12	3-3-12	3-5-2	3-5-2	5-0-6	6-10-4	4-5-3

Scale = 1:73.1

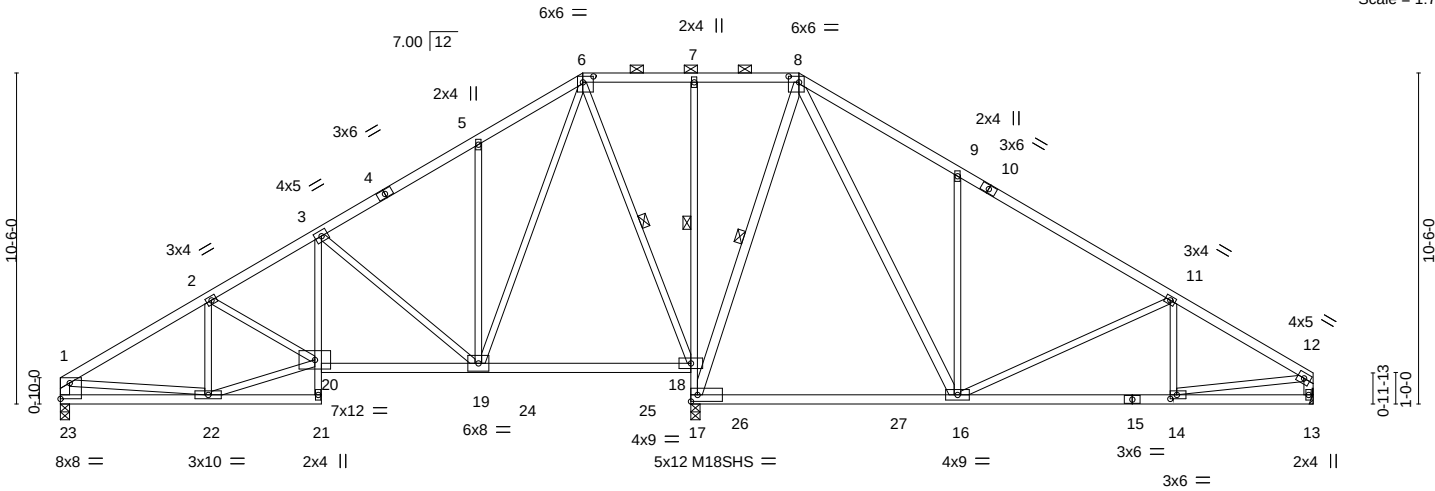


Plate Offsets (X,Y)--	[6:0-4-0,0-2-4], [8:0-4-0,0-2-4], [14:0-2-8,0-1-8], [23:Edge,0-6-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.46	Vert(LL)	-0.26 16-17	>886	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.41 16-17	>568	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	-0.03 17	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 19-20	>999	240		
								Weight: 190 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-11-1 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 6-8.
BOT CHORD 2x4 SPF No.2 *Except* 3-21,7-17: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 3-7-0 oc bracing: 17-18.
WEBS 2x3 SPF No.2 *Except* 8-17,8-16,1-23,12-13: 2x4 SPF No.2	WEBS 1 Row at midpt 7-18 1 Row at midpt 6-18, 8-17

REACTIONS. (size) 23=0-3-8, 17=0-3-8, 13=Mechanical
Max Horz 23=220(LC 5)
Max Uplift 23=45(LC 8), 13=85(LC 9)
Max Grav 23=910(LC 13), 17=2061(LC 13), 13=969(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1211/82, 2-3=-1266/144, 3-5=-721/145, 5-6=-687/215, 8-9=-948/300, 9-11=-912/182, 11-12=-1284/147, 1-23=-829/70, 12-13=-894/104
BOT CHORD 22-23=-198/378, 3-20=-11/499, 19-20=-106/1181, 17-18=-1196/77, 7-18=-287/67, 14-16=-93/1048
WEBS 2-22=-325/94, 20-22=-113/1153, 3-19=-746/113, 5-19=-323/122, 6-19=-112/1098, 6-18=-926/52, 8-17=-817/6, 8-16=-118/1133, 9-16=-464/172, 11-16=-444/83, 1-22=-6/788, 12-14=-84/953

- 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) All plates are MT20 plates unless otherwise indicated.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 13.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 9,2020

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	I43924121
210251	C8	Piggyback Base	3	1		

Wheeler Lumber, Waverly, KS - 66871,

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Job Reference (optional)

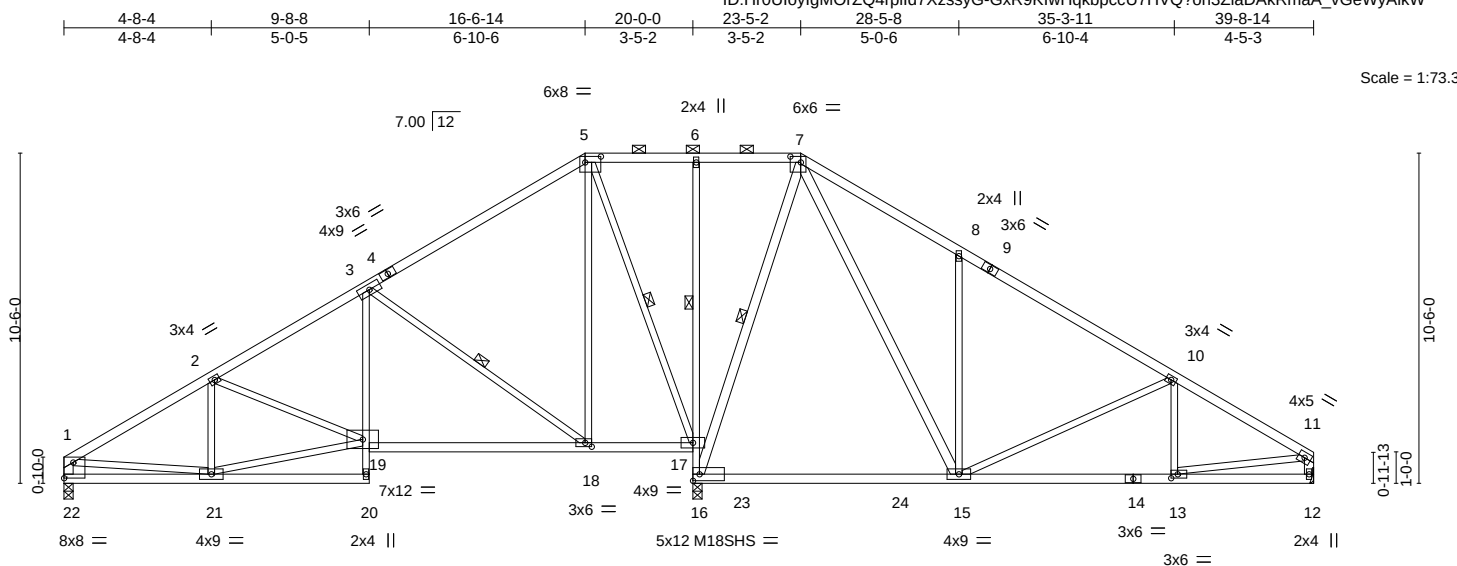


Plate Offsets (X,Y)--	[5:0-6-0,0-2-4], [7:0-4-0,0-2-4], [13:0-2-8,0-1-8], [18:0-2-8,0-1-8], [22:Edge,0-6-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	-0.26 15-16	>886	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.41 15-16	>569	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.86	Horz(CT)	-0.03 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 18-19	>999	240		
								Weight: 189 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 3-20,6-16: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 7-16,7-15,1-22,11-12: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-4 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-7.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 20-21
 4-0-8 oc bracing: 16-17.
 1 Row at midpt 6-17
 1 Row at midpt 3-18, 5-17, 7-16

REACTIONS.

(size) 22=0-3-8, 16=0-3-8, 12=Mechanical
 Max Horz 22=220(LC 5)
 Max Uplift 22=-35(LC 8), 12=-73(LC 9)
 Max Grav 22=924(LC 13), 16=1966(LC 13), 12=991(LC 14)

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

TOP CHORD 1-2=-1244/63, 2-3=-1148/115, 3-5=-461/162, 7-8=-988/279, 8-10=-952/162,
 10-11=-1319/129, 1-22=-848/57, 11-12=-916/92
 BOT CHORD 21-22=-200/367, 3-19=0/536, 18-19=-70/1075, 17-18=-10/302, 16-17=-1118/82,
 6-17=-269/68, 13-15=-78/1078
 WEBS 19-21=-84/1178, 3-18=-962/140, 5-18=0/737, 5-17=-985/38, 7-16=-798/20,
 7-15=-120/1130, 8-15=-464/172, 10-15=-438/86, 1-21=0/825, 11-13=-69/982

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) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 12.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 9,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:54 2020 Page 1
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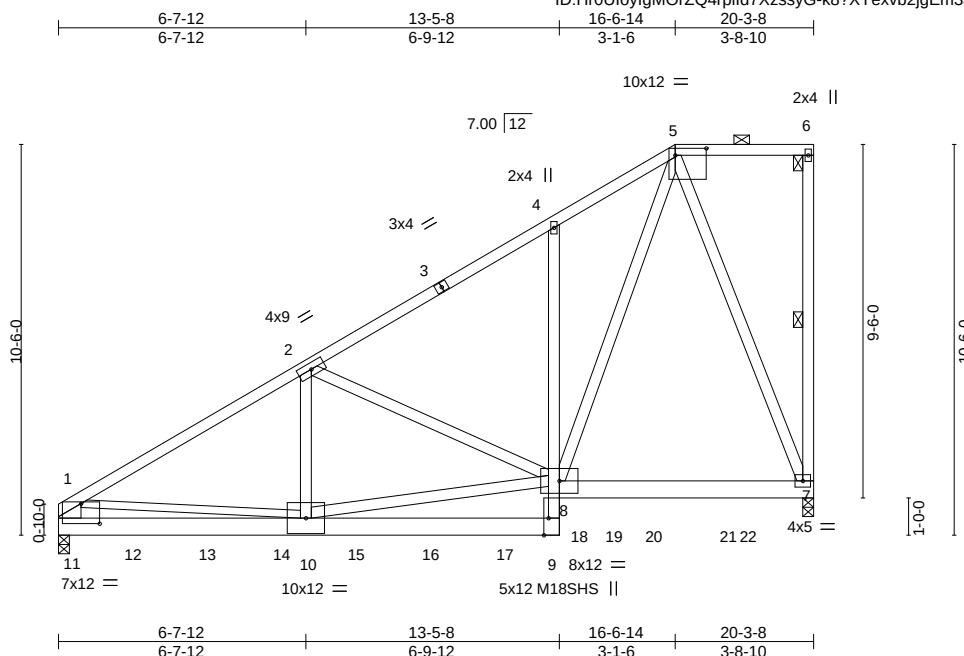


Plate Offsets (X,Y)-- [5:0-10-0-0-2-4], [9:0-5-8,Edge], [11:0-6-0-0-6-7]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.17	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.29	9-10	>819	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	9-10	>999	240	Weight: 420 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except*
	4-9: 2x4 SPF No.2
WEBS	2x4 SPF No.2 *Except*
	1-11: 2x8 SP DSS, 1-10: 2x3 SPF No.2

BRACING-

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

REACTIONS.

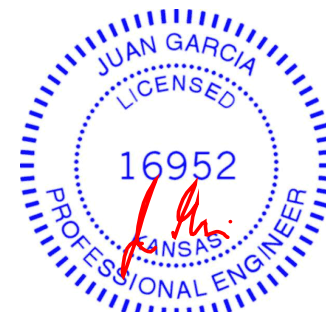
(size) 7=0-3-8 (req. 0-3-15), 11=0-3-8 (req. 0-4-5)
 Max Horz 11=314(LC 20)
 Max Uplift 7=-463(LC 5), 11=-681(LC 8)
 Max Grav 7=7484(LC 2), 11=8193(LC 2)

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

TOP CHORD 1-2=-10775/759, 2-4=-5811/407, 4-5=-5816/497, 1-11=-6087/433
BOT CHORD 10-11=-671/3878, 9-10=-36/1028, 8-9=0/2143, 4-8=-400/144, 7-8=-216/2101
WEBS 2-10=-366/4263, 8-10=-724/8288, 2-8=-4791/468, 5-8=-660/8515, 5-7=-5667/428,
1-10=-161/5371

NOTES-

- 1) 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, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-4-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x3 - 1 row at 0-9-0 oc.
- 2) 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.
- 3) Wind: ASCE 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 8) WARNING: Required bearing size at joint(s) 7, 11 greater than input bearing size.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=463, 11=681.
- 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.



December 9, 2020

Continued on page 2

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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 7 H3
210251	C9	Piggyback Base Girder	1	3	I43924122
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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ID:Hr0UloylgMOrZQ4rpild7XzssyG-k8?XYexvb2jgEm3JrDyELucfzUITxYjPefpAyyAlkV

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1684 lb down and 218 lb up at 1-11-4, 1698 lb down and 238 lb up at 3-11-4, 1698 lb down and 238 lb up at 5-11-4, 1575 lb down and 47 lb up at 7-11-4, 1575 lb down and 47 lb up at 9-11-4, 1571 lb down and 47 lb up at 11-11-4, 1277 lb down and 197 lb up at 13-11-4, 892 lb down and 40 lb up at 15-11-4, and 896 lb down and 40 lb up at 17-11-4, and 921 lb down and 32 lb up at 20-1-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-5=-70, 5-6=-70, 9-11=-20, 7-8=-20
 - Concentrated Loads (lb)
 - Vert: 7=-830(B) 12=-1456(B) 13=-1460(B) 14=-1460(B) 15=-1460(B) 16=-1460(B) 17=-1456(B) 18=-1185(B) 20=-822(B) 21=-822(B)

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	143924123
210251	D1	Common Supported Gable	1	1		

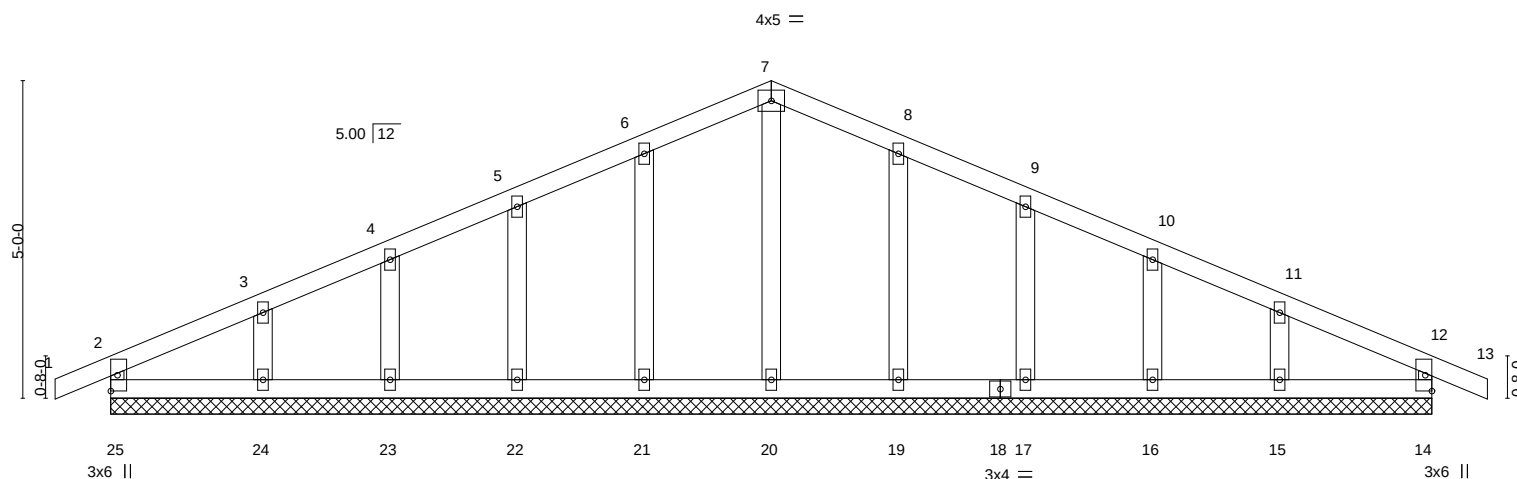
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:55 2020 Page 1

ID:Hr0UloylgMOrZQ4rpild7XzssyG-CKZwl_xYMMrXsweVPwTTt68?wN3QCYxtelOMjPyAlkU

0-10-8 10-4-12 20-9-8 21-8-0
0-10-8 10-4-12 10-4-12 0-10-8

Scale = 1:36.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	13	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	13	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 79 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 20-9-8.
(lb) - Max Horz 25=69(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 25, 14, 21, 22, 23, 24, 19, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 25, 14, 20, 21, 22, 23, 24, 19, 17, 16, 15

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

NOTES-

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



December 9, 2020

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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 7 H3	143924124
210251	D2	Common	4	1		

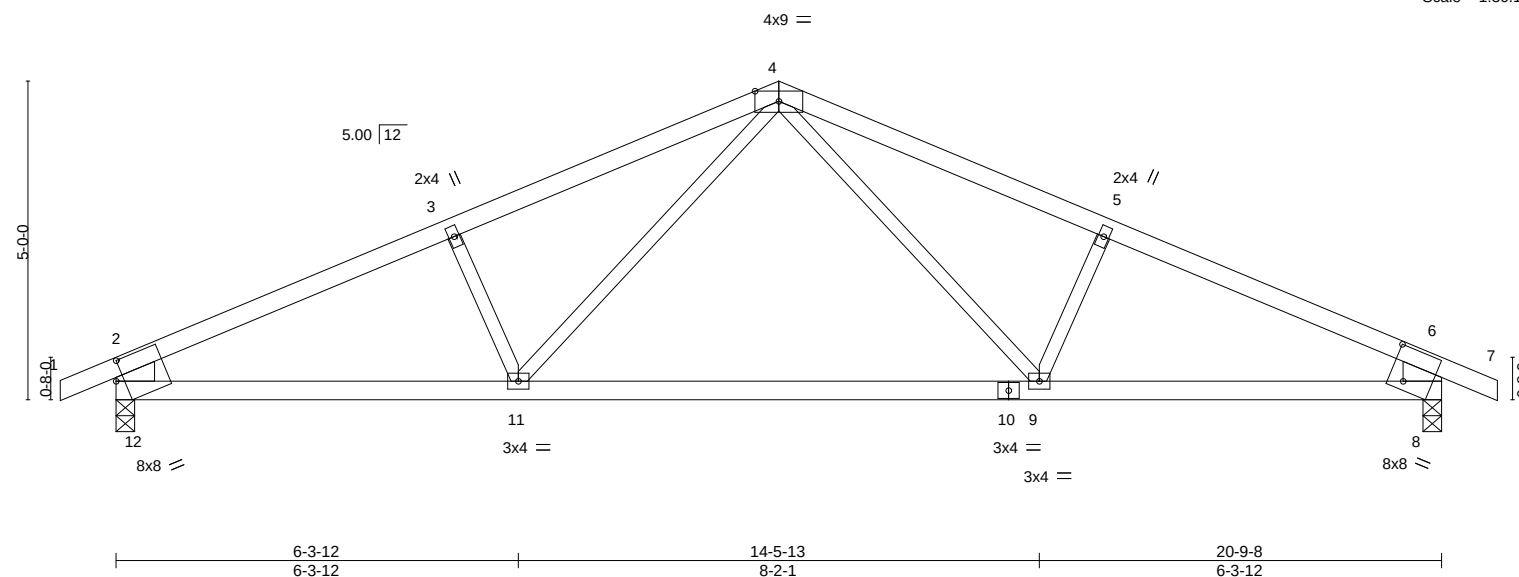
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:14:56 2020 Page 1

ID:Hr0U0y0lgM0rZQ4rpild7XzssyG-hW7lzJyA7fzNT4Dize_iQJhzOnGExz00sy8wFryAlkT

0-10-8	5-3-10	10-4-12	15-5-14	20-9-8	21-8-0
0-10-8	5-3-10	5-1-2	5-1-2	5-3-10	0-10-8

Scale = 1:36.1



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.91	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.64	Vert(LL) -0.17 9-11 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.39 9-11 >621 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.04 8 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.10 9-11 >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*
2-12,6-8: 2x8 SP DSS

BRACING-

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

REACTIONS.

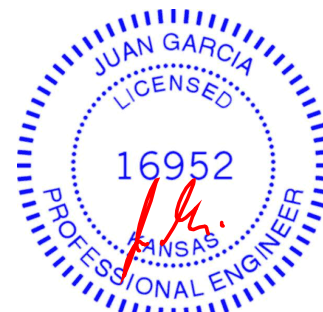
(size) 12=0-3-8, 8=0-3-8
Max Horz 12=-66(LC 13)
Max Uplift 12=-143(LC 8), 8=-143(LC 9)
Max Grav 12=991(LC 1), 8=991(LC 1)

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

TOP CHORD 2-3=-1541/197, 3-4=-1394/220, 4-5=-1394/220, 5-6=-1541/197, 2-12=-907/170, 6-8=-907/170
BOT CHORD 11-12=-185/1326, 9-11=-59/968, 8-9=-119/1326
WEBS 4-9=-89/469, 5-9=-251/176, 4-11=-88/469, 3-11=-251/176

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) 12=143, 8=143.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9,2020

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

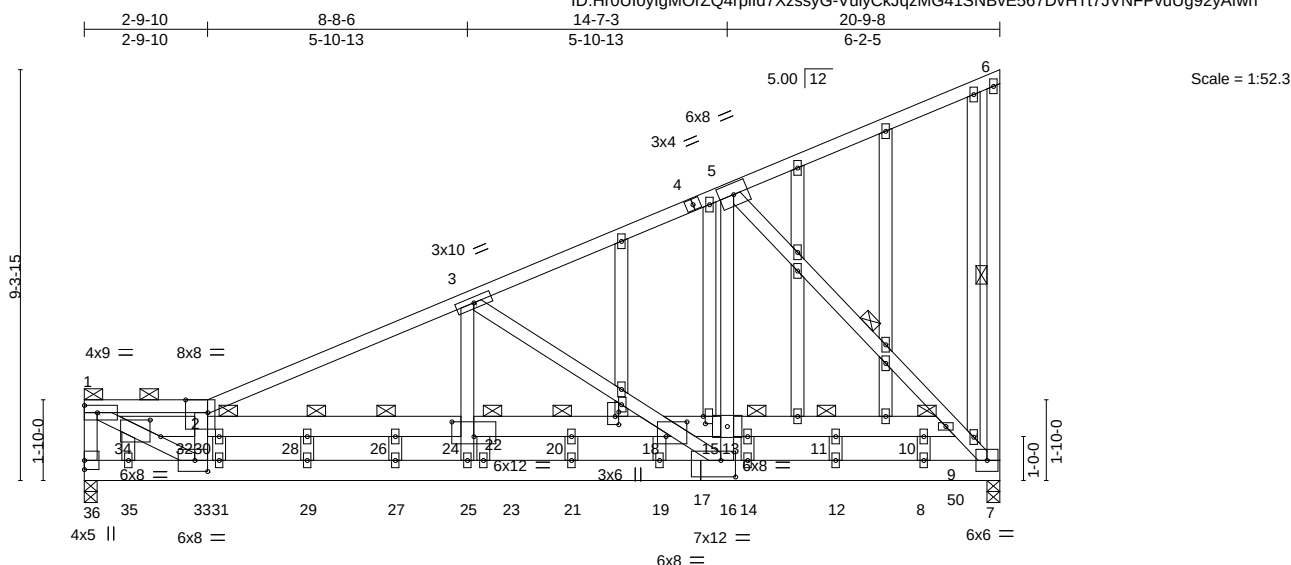
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS 66871, Mitek

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 14:51:24 2020 Page 1
ID:Hr0UJovIqMOrZO4rnpId7XzssvG-VuivCkIazMG41SNbYrE567DvHTi7JVNFpviUla92yAfw



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.10	26-28	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.20	26-28	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09	26-28	>999	240	Weight: 365 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 2-4: 2x4 SPF 2100F 1.8E	TOP CHORD	Structural wood sheathing directly applied or 5-11-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-9 max.): 1-2.
BOT CHORD	2x6 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2 *Except* 1-33: 2x4 SPF 2100F 1.8E	WEBS	1 Row at midpt 6-7, 5-7
OTHERS	2x4 SPF No.2	JOINTS	1 Brace at Jt(s): 1, 30, 28, 26, 22, 20, 13, 11, 10

REACTIONS. (lb/size) 36=4616/0-3-8 (req. 0-3-11), 7=4768/0-3-8 (req. 0-3-13)
 Max Horz 36=380(LC 5)
 Max Uplift 36=-681(LC 8), 7=-780(LC 8)
 Max Grav 36=4684(LC 15), 7=4851(LC 15)

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

TOP CHORD 1-36=-2284/341, 1-2=-5126/706, 2-3=-6843/973, 3-4=-3838/549, 4-5=-3721/573

BOT CHORD 35-36=-362/319, 33-35=-360/1208, 31-33=-1197/7830, 29-31=-1197/7830,
27-29=-1197/7830, 25-27=-1197/7830, 23-25=-1135/7472, 21-23=-1135/7472,
19-21=-1135/7472, 17-19=-1132/7441, 16-17=-1132/7441, 14-16=-586/4068,
12-14=-586/4068, 8-12=-586/4068, 8-50=-586/4068, 7-50=-586/4068, 32-34=-2646/359,
30-32=-1565/229, 28-30=-1565/229, 26-28=-1565/229, 24-26=-1565/229, 22-24=-1212/167,
20-22=-1212/167, 18-20=-1212/167, 15-18=-562/106, 13-15=-566/104, 11-13=-566/104,
10-11=-566/104, 9-10=-566/104

WEBS 1-34=-735/5263, 33-34=-1091/7939, 32-33=-2135/330, 2-32=-2996/501, 24-25=-149/1369,
3-24=-270/2622, 3-18=-3270/563, 16-18=-4172/666, 15-16=-373/2726, 5-15=-627/4750,
5-9=-4978/837, 7-9=-6109/1024, 30-31=-1114/185, 28-29=-307/54, 26-27=-312/52,
22-23=-409/79, 20-21=-595/96, 13-14=-52/388, 11-12=-755/130, 8-10=-77/299,
34-35=-3560/507

NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 33-2 2x4 - 1 row at 0-4-0 oc, member 7-5 2x4 - 1 row at 0-4-0 oc, member 35-34 2x4 - 1 row at 0-7-0 oc.
- 2) 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.
- 3) Wind: ASCE 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
- 4) 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.
- 5) Provide adequate drainage to prevent water ponding.

6) All plates are 2x4 MT20 unless otherwise specified.



December 9, 2020

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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 7 H3	I43924125
210251	D3	Roof Special Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS 66871, Mitek

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 14:51:24 2020 Page 2
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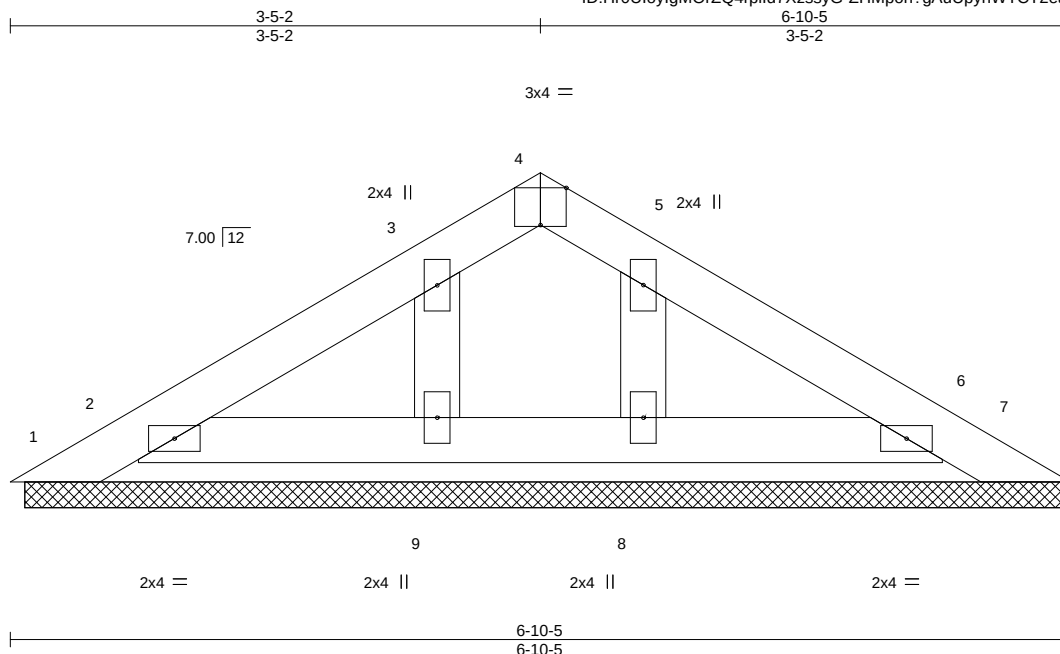
- NOTES-**
- 7) Gable studs spaced at 2-0-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 10) WARNING: Required bearing size at joint(s) 36, 7 greater than input bearing size.
 - 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 681 lb uplift at joint 36 and 780 lb uplift at joint 7.
 - 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.
 - 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) . The design/selection of such connection device(s) is the responsibility of others.
 - 15) Studding applied to ply: 1(Front)

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-2=-70, 2-6=-70, 7-36=-20, 9-34=-20
 - Concentrated Loads (lb)
 - Vert: 18=-816(B) 30=-623(B) 28=-623(B) 26=-623(B) 22=-777(B) 20=-777(B) 13=-769(B) 11=-769(B) 10=-769(B) 34=-625(B)

Job 210251	Truss P1	Truss Type GABLE	Qty 1	Ply 1	Lot 7 H3 I43924126
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:00 2020 Page 1
ID: Hr0UloylgMOrZQ4rpild7XzssyG-ZHMPoh?gAuUpyhWTCT2ea9st?Omltohcna67OcyAlkP



Scale = 1:14.9

Plate Offsets (X,Y)--		[4:0-2-0,Edge], [5:0-0-0,0-0-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.02	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.01	Horz(CT)	0.00	6	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 17 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 6-0-0 oc bracing.

REACTIONS.

All bearings 6-9-3.

(lb) - Max Horz 1=48(LC 6)

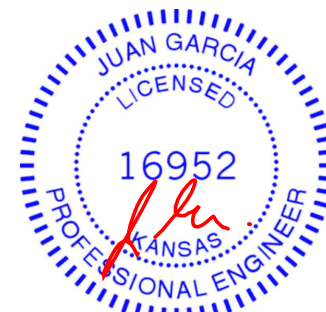
Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 2, 6, 9, 8

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 2, 6, 9, 8

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 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) 1, 7, 2, 6, 9, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 9,2020

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

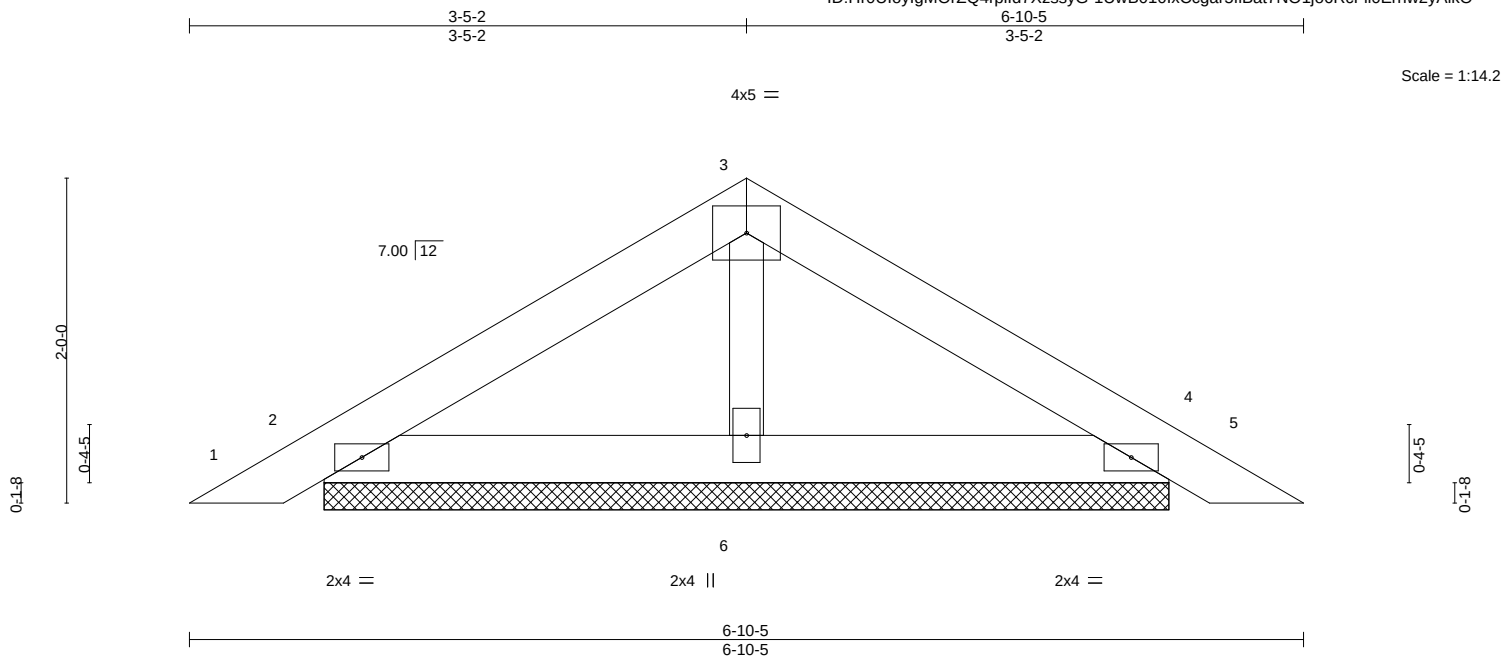


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss P2	Truss Type Piggyback	Qty 9	Ply 1	Lot 7 H3 Job Reference (optional)	I43924127
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:01 2020 Page 1
ID:Hr0UloylgMOrZQ4rpild7XzssyG-1UwB010IxCgar5flBat7NO1jo6RcFI0Erhw2yAlko



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	0.00	5	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	5	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 16 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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) 2=5-2-6, 4=5-2-6, 6=5-2-6
Max Horz 2=-48(LC 6)
Max Uplift 2=-43(LC 8), 4=-49(LC 9)
Max Grav 2=168(LC 1), 4=168(LC 1), 6=207(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) 2, 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 9,2020

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

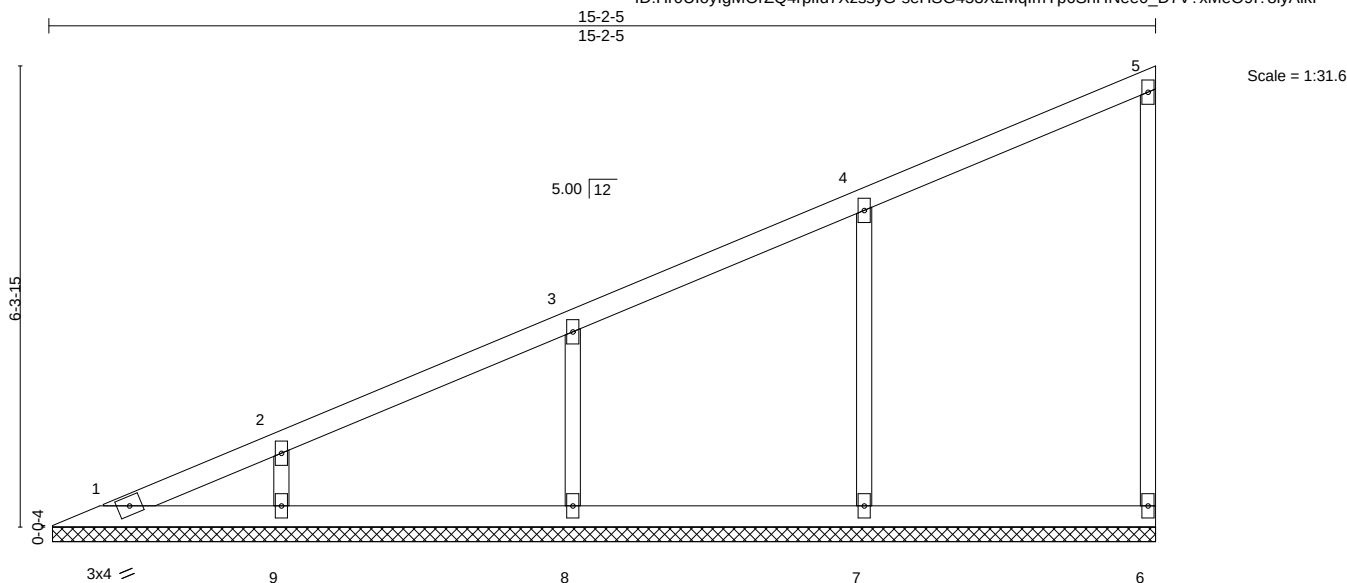


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3	I43924129
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:07 2020 Page 1
ID:Hr0UloylgMOrZQ4rpild7XzssyG-seHSG453X2MqlmYp6ShHNee0_D7V?xMeO9I?8iyAlkl



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 0.31	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 0.15	Horz(CT)	-0.00	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 46 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 15-1-11.

(lb) - Max Horz 1=261(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 6, 8, 9 except 7=-104(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 6 except 7=440(LC 2), 9=336(LC 2)

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

WEBS 4-7=-306/143, 3-8=-280/147, 2-9=-251/128

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8, 9 except (jt=lb) 7=104.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9, 2020

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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

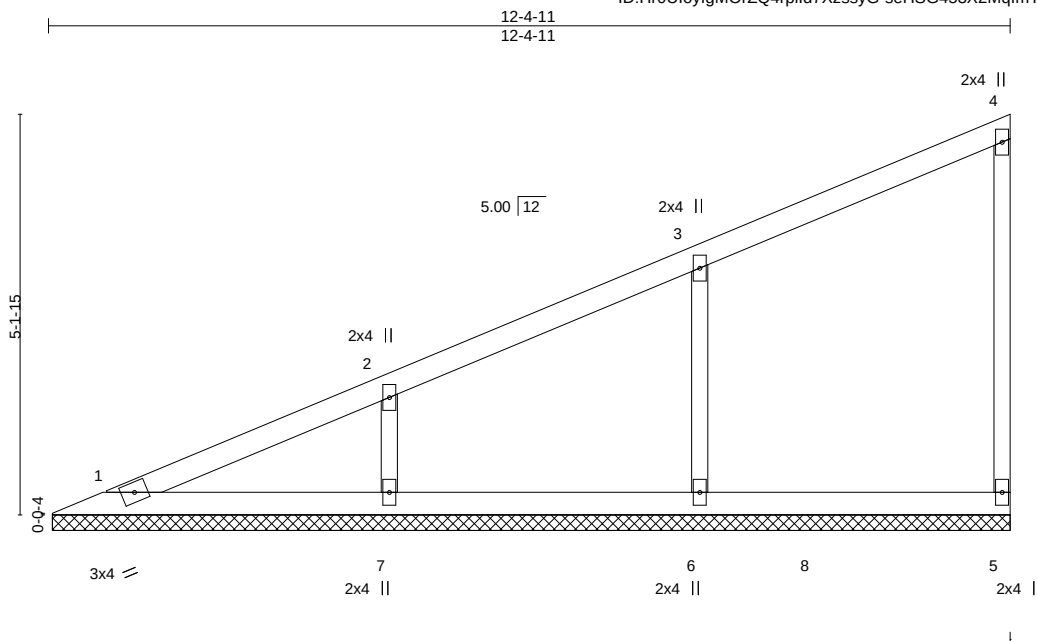


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3	I43924130
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:07 2020 Page 1
ID: Hr0UloYlgMOrZQ4rpild7XzssyG-seHSG453X2MqlmYp6ShHNee1D7i?yleO9I?8iyAlkl



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 36 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 12-4-2.

(lb) - Max Horz 1=210(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 5 except 6=-103(LC 8), 7=-101(LC 8)

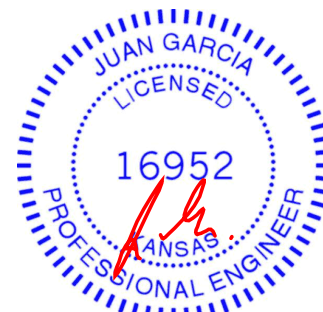
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=415(LC 2), 7=384(LC 2)

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

WEBS 3-6=-304/148, 2-7=-287/147

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 6=103, 7=101.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9, 2020

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

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



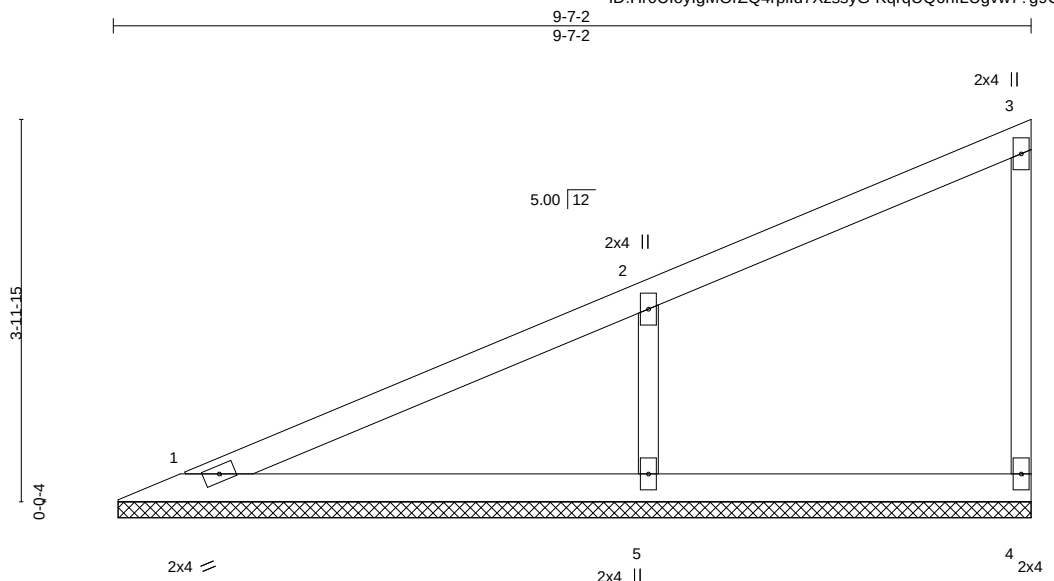
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3	I43924131
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:08 2020 Page 1

ID:Hr0UloylgMOrZQ4rpild7XzssyG-KqrqUQ6hILUgww7?g9CWvrBB0dTVkPlndp2Yg8yAlkH



Scale: 1/2"=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 0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 26 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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=9-6-8, 4=9-6-8, 5=9-6-8
Max Horz 1=159(LC 5)
Max Uplift 4=-23(LC 5), 5=-130(LC 8)
Max Grav 1=174(LC 1), 4=121(LC 1), 5=491(LC 1)

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

WEBS 2-5=-372/183

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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=130.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9, 2020

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

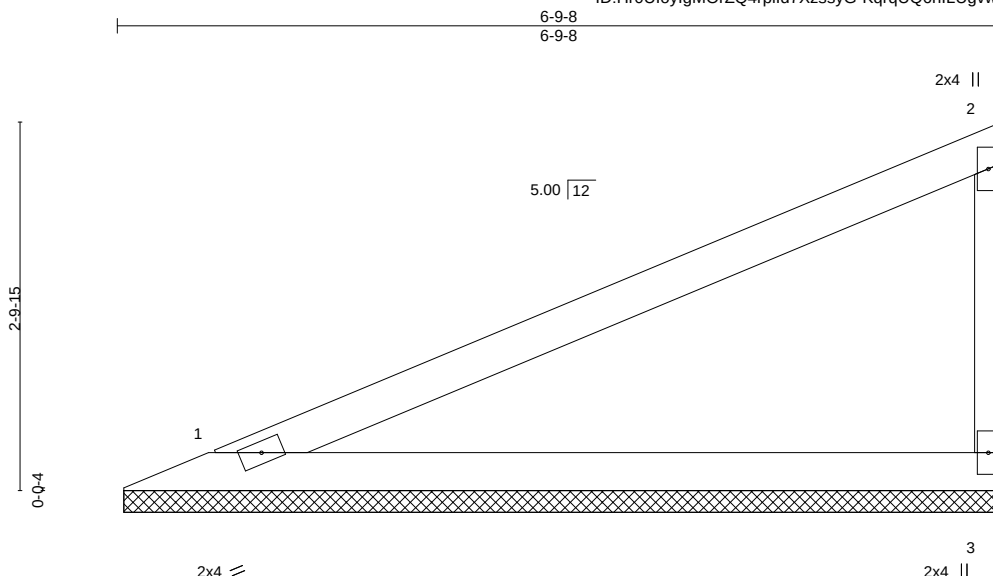


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	I43924132
210251	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:08 2020 Page 1
ID:Hr0UloytGMOrZQ4rpild7XzssyG-KqrqUQ6hILUgww7?g9CWvrB5ldQ4kQundp2Yg8yAlkH



Scale = 1:17.7

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 0.70	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.38	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: 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 6-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-8-14, 3=6-8-14
Max Horz 1=108(LC 5)
Max Uplift 1=39(LC 8), 3=61(LC 8)
Max Grav 1=267(LC 1), 3=267(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.



December 9, 2020

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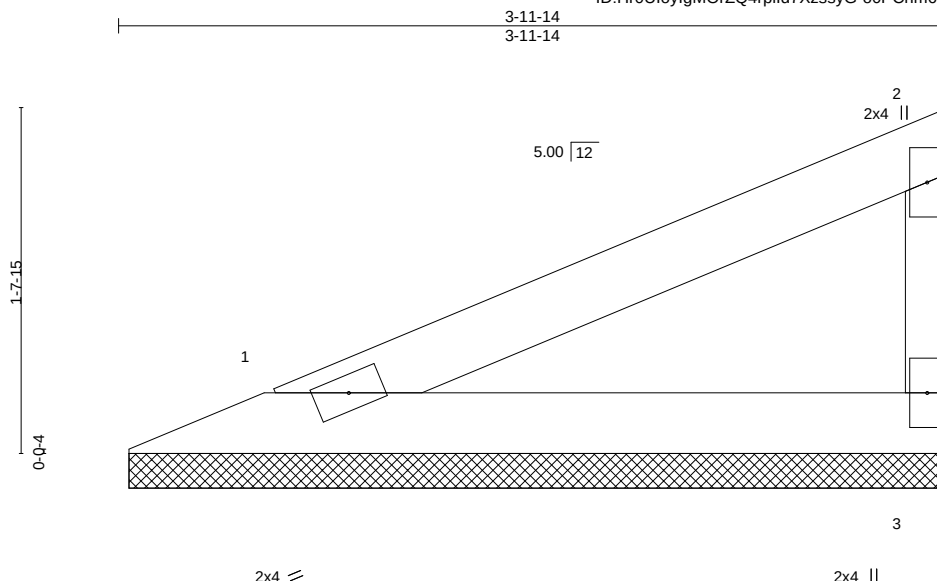


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V6	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3 Job Reference (optional)	I43924133
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:09 2020 Page 1
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Scale = 1:11.1

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 0.17	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

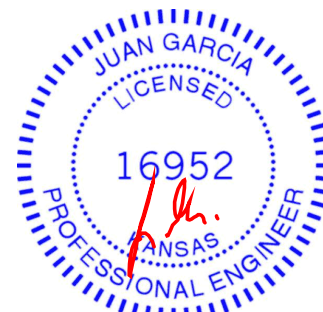
REACTIONS.

(size) 1=3-11-5, 3=3-11-5
Max Horz 1=57(LC 5)
Max Uplift 1=21(LC 8), 3=32(LC 8)
Max Grav 1=141(LC 1), 3=141(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.



December 9, 2020

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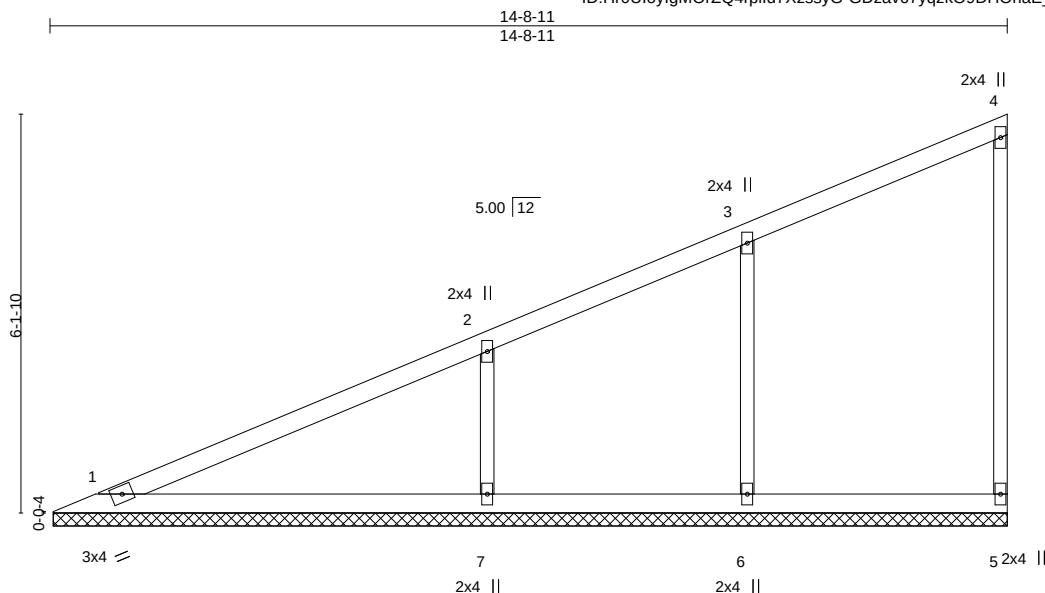


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3	I43924134
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:10 2020 Page 1
ID: Hr0UloylgMOrZQ4rpild7XzssyG-GDzav67yqzkO9DHOaE__GGVBQ7ECJb447Xfl1yAlkF



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 0.45	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 44 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-8-2.

(lb) - Max Horz 1=253(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=-146(LC 8)

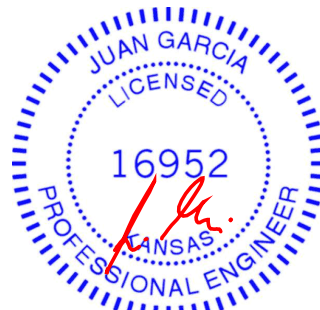
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=371(LC 2), 7=557(LC 2)

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

WEBS 3-6=-260/123, 2-7=-410/207

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 7=146.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9, 2020

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

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

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



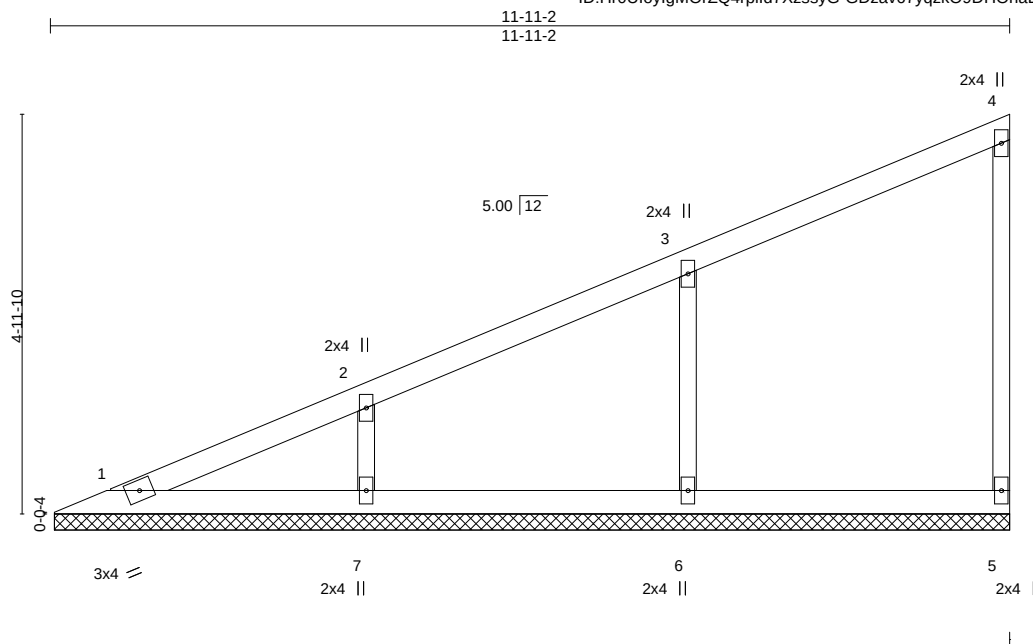
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V8	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3 I43924135
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:10 2020 Page 1

ID: Hr0UloylgMOrZQ4rpild7XzssyG-GDzav67yqzkO9DHOnaE_GGY7QAnCJ6447Xfl1yAlkF



Scale = 1:28.6

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 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 34 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 11-10-8.

(lb) - Max Horz 1=202(LC 5)

Max Uplift All uplift 100 lb or less at joint(s) 5, 7 except 6=104(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=395(LC 1), 7=350(LC 1)

FORCES.

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

WEBS 3-6=-309/151, 2-7=-267/138

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

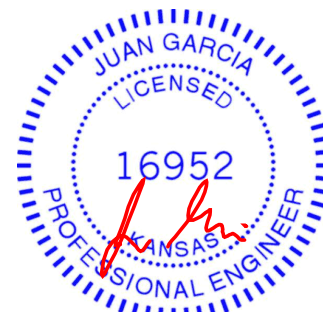
2) Gable requires continuous bottom chord bearing.

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) 5, 7 except (jt=lb) 6=104.

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



December 9, 2020

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

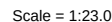
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:11 2020 Page 1
OrZO4rpjld7XzssvG-kPXz6S8aaGsEmNsaLHlDxUphggVWxmaDjNjGDHtVAlKE



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.

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=122.
- 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.



WARNING: Velly design parameters and READ NOTES ON THIS AND INCLUDED WITHER REFERENCE PAGE MM1473 Rev. 3/25/2020 BEFORE USE.

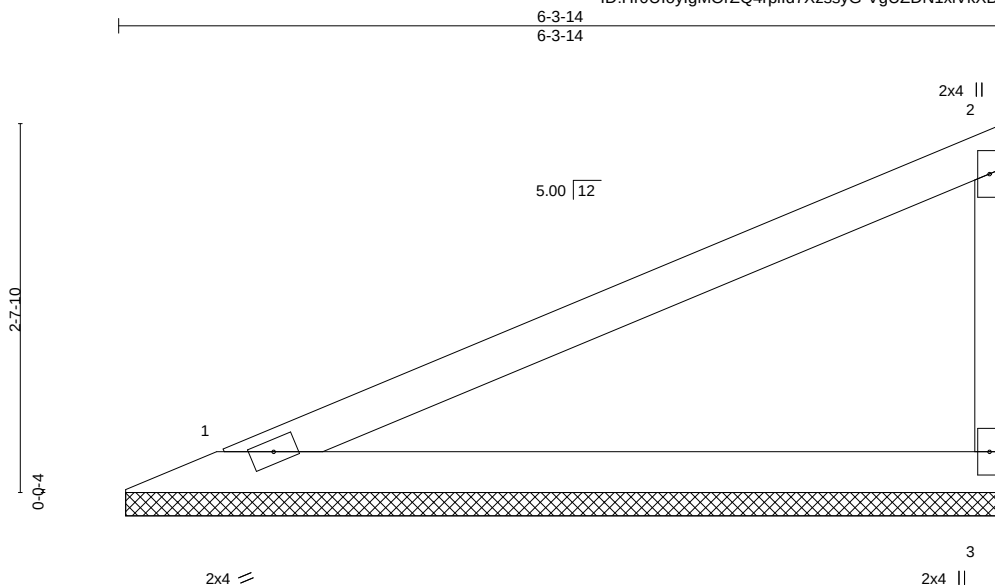
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/P11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Lot 7 H3	I43924137
210251	V10	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:02 2020 Page 1
ID:Hr0UloylgMOrZQ4rpild7XzssyG-VgUZDN1xiVkB?grJu56gax41COeLiPvFubESVyAlkN



Scale = 1:16.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.32	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-3-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-3-5, 3=6-3-5
Max Horz 1=100(LC 5)
Max Uplift 1=36(LC 8), 3=56(LC 8)
Max Grav 1=246(LC 1), 3=246(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.



December 9, 2020

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

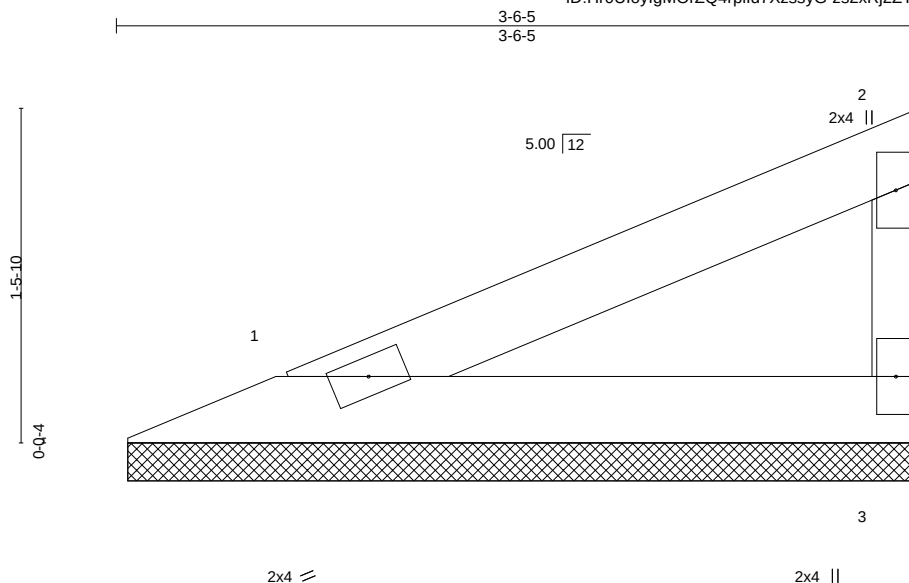


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V11	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3 Job Reference (optional)	I43924138
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:03 2020 Page 1
ID:Hr0UloylgMOrZQ4rpild7XzssyG-zs2xRj2ZTpsOp9F2tcclCoUN_cnn39e2TYKo?xyAlkM



Scale = 1:10.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

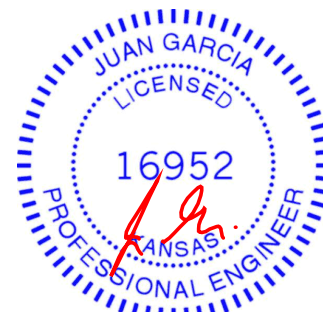
REACTIONS.

(size) 1=3-5-11, 3=3-5-11
Max Horz 1=49(LC 5)
Max Uplift 1=17(LC 8), 3=27(LC 8)
Max Grav 1=120(LC 1), 3=120(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.



December 9, 2020

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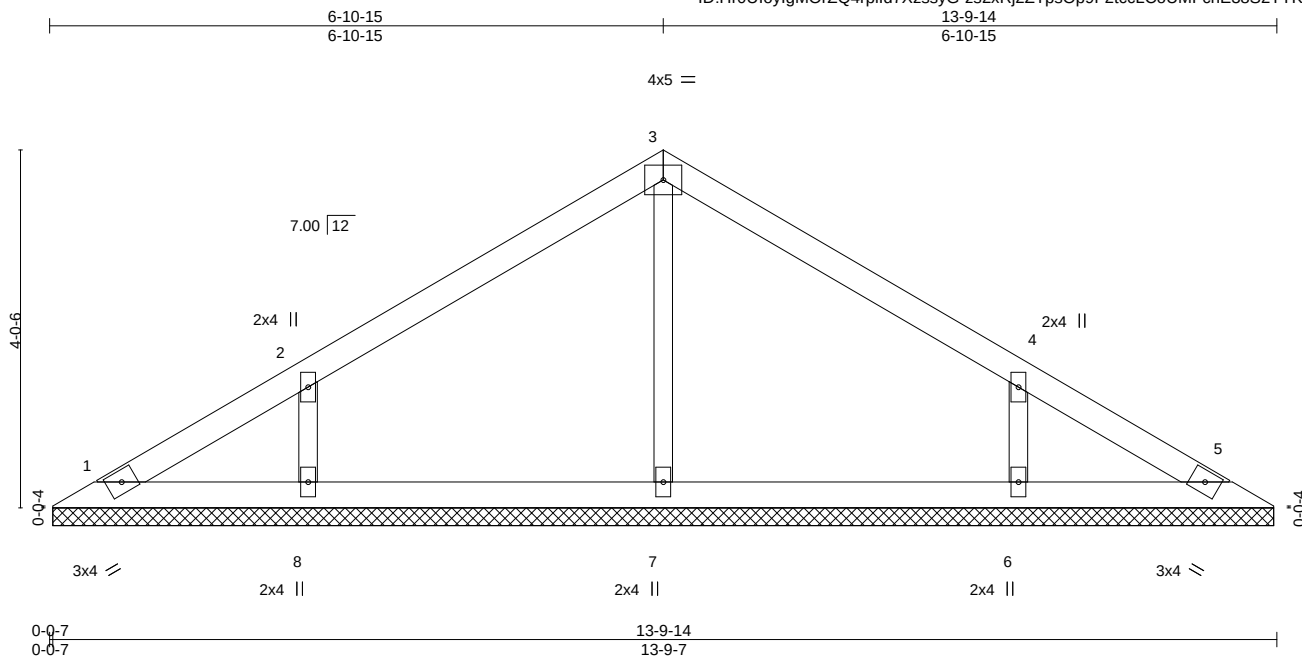


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V12	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3	I43924139
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:03 2020 Page 1
ID:Hr0UloylgMOrZQ4rpild7XzssyG-zs2xRj2ZTpsOp9F2tccLCoUMFenE38S2TYKo?xyAlkM



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	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 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 37 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.

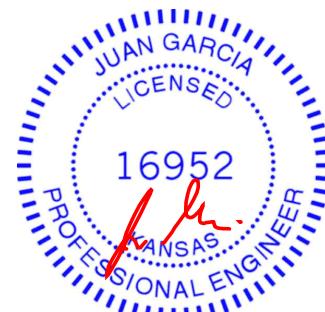
All bearings 13-9-0.
(lb) - Max Horz 1=-97(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-126(LC 8), 6=-125(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=298(LC 1), 8=353(LC 15), 6=353(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-282/167, 4-6=-282/167

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 except (jt=lb) 8=126, 6=125.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 9, 2020

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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

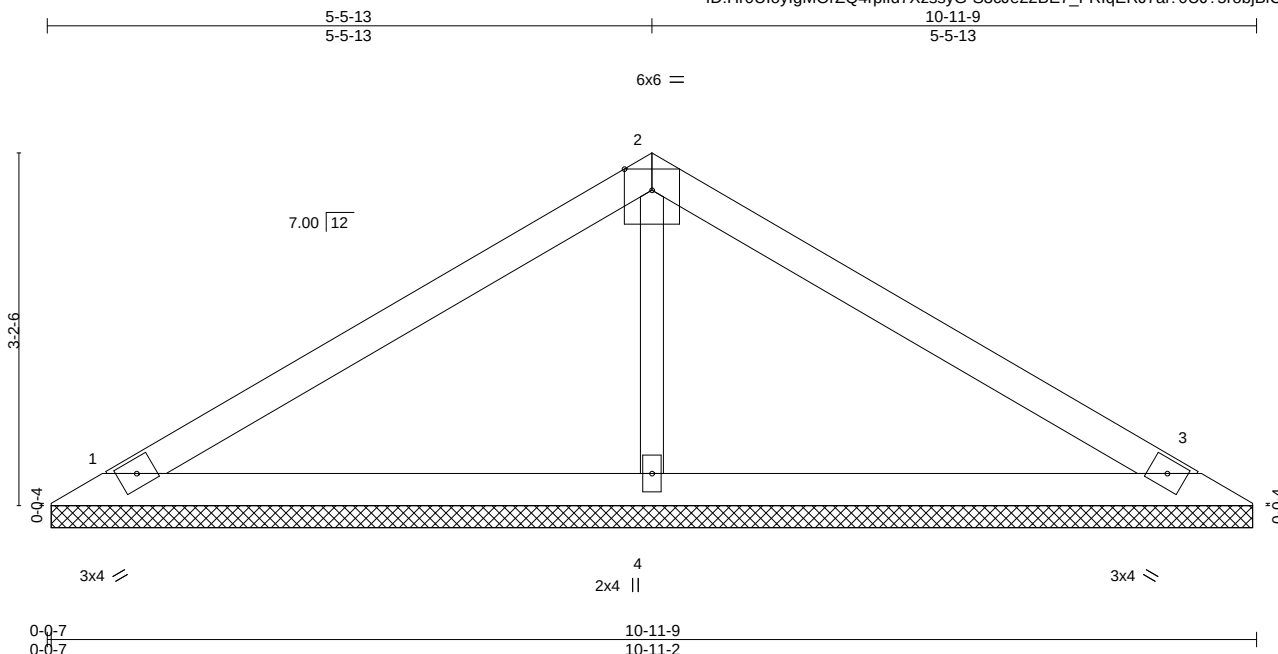


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V13	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3	I43924140
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:04 2020 Page 1
ID: Hr0UloylgMOrZQ4rpild7XzssyG-S3cJe22BE7_FRlqERJ7al?0UJ?5robjBiC4LXNyAlkL



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 28 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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=10-10-11, 3=10-10-11, 4=10-10-11
Max Horz 1=75(LC 5)
Max Uplift 1=-43(LC 8), 3=-53(LC 9), 4=-21(LC 8)
Max Grav 1=218(LC 1), 3=218(LC 1), 4=452(LC 1)

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

WEBS 2-4=-302/78

NOTES-

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



December 9, 2020

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

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

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



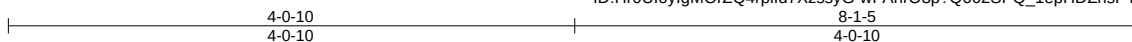
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V14	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3 Job Reference (optional)	I43924141
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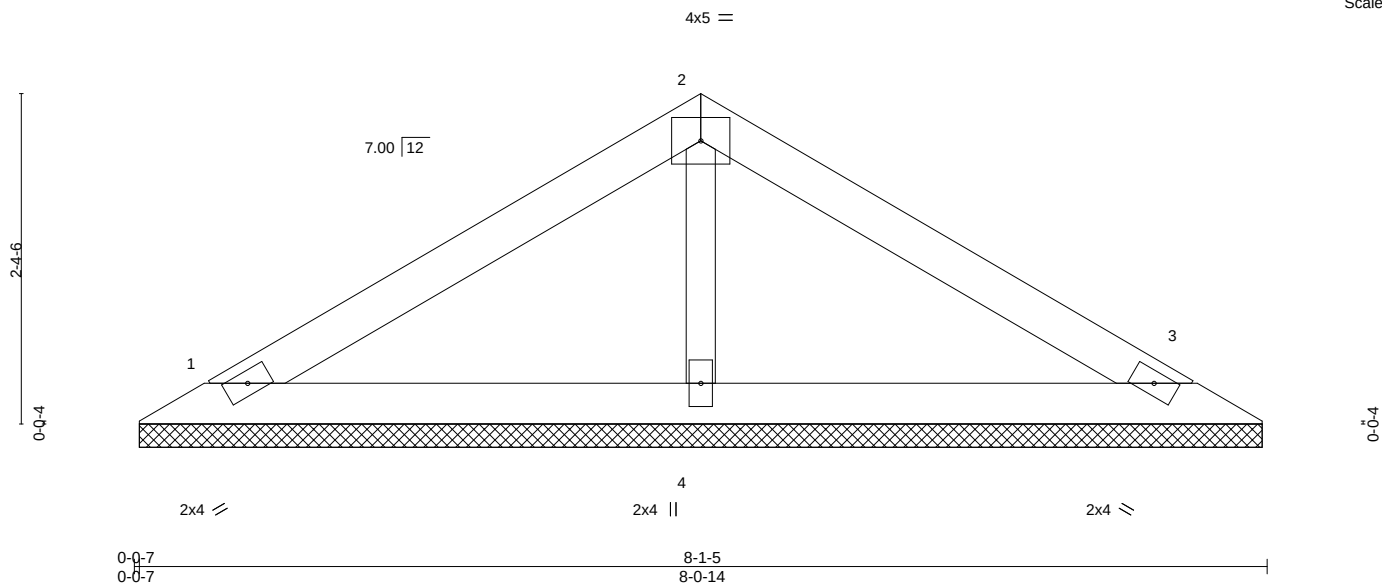
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:05 2020 Page 1

ID:Hr0UioylgMOrZQ4rpild7XzssyG-wFAhrO3p?Q662SPQ_1epHDZhsPTeX3WLxrp3qyAlkK



Scale = 1:16.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 20 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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=8-0-7, 3=8-0-7, 4=8-0-7
Max Horz 1=-54(LC 4)
Max Uplift 1=-39(LC 8), 3=-45(LC 9)
Max Grav 1=171(LC 1), 3=171(LC 1), 4=290(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.



December 9, 2020

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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



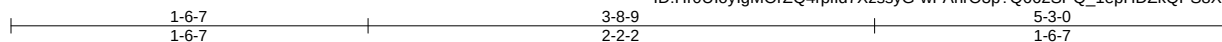
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210251	Truss V15	Truss Type Valley	Qty 1	Ply 1	Lot 7 H3 Job Reference (optional)	I43924142
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Wed Dec 9 08:15:05 2020 Page 1

ID: Hr0UloylgMOrZQ4rpild7XzssyG-wFAhrO3p?Q662SPQ_1epHDZkQPS8X38LxrpU3qyAlkK



Scale = 1:9.9

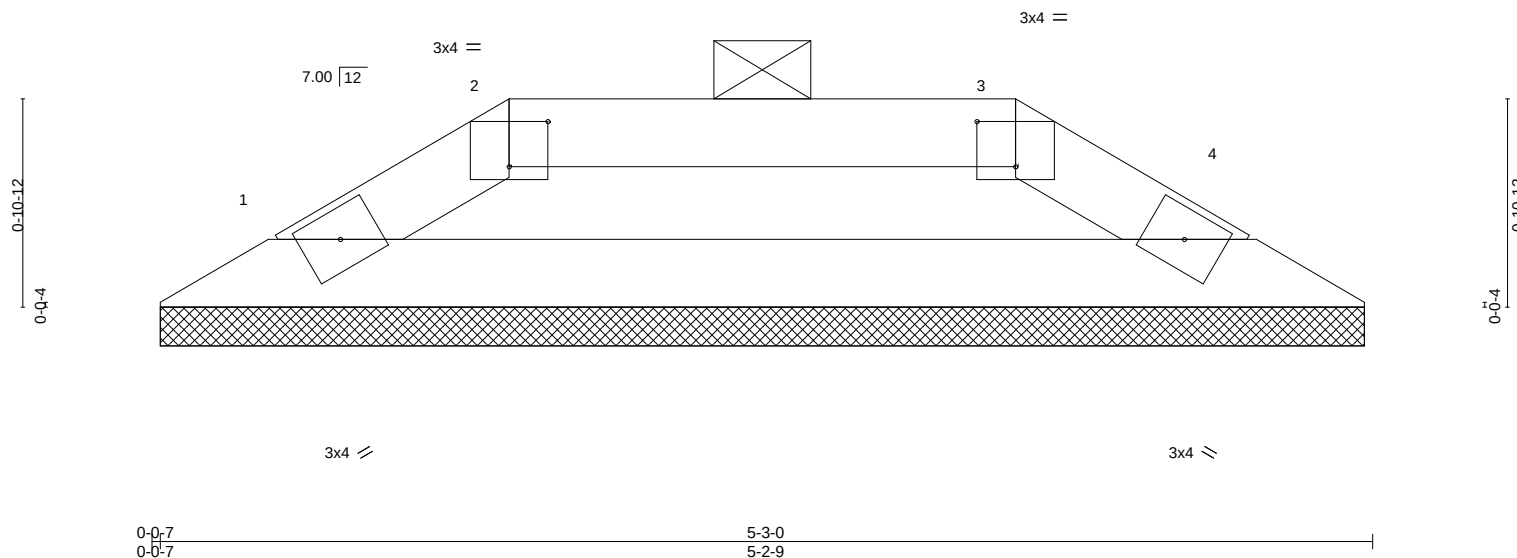


Plate Offsets (X,Y)--		[2:0-2-0,0-2-5], [3:0-2-0,0-2-5]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06
TCDL 10.0	Lumber DOL	1.15	BC 0.14
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 11 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 5-3-0 oc purlins, except 2-0-0 oc purlins: 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-2-2, 4=5-2-2
Max Horz 1=-16(LC 4)
Max Uplift 1=-13(LC 5), 4=-13(LC 4)
Max Grav 1=188(LC 1), 4=188(LC 1)

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

TOP CHORD 1-2=-261/54, 3-4=-261/54

NOTES-

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



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

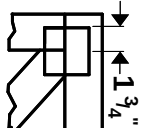
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



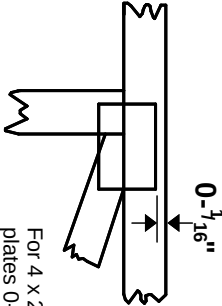
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

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

PLATE SIZE

4 X 4

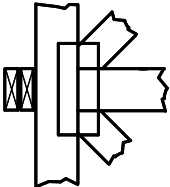
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



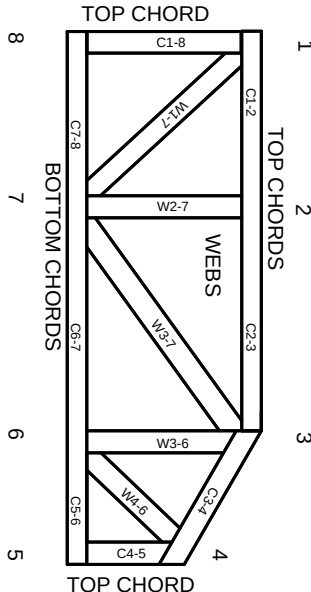
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: 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 T or 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.