



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/14/2021

RE: 210401
Lot 129 H4

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

Site Information:

Customer: Project Name: 210401
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: ASCE716LowRise
Roof Load: 45.0 psf

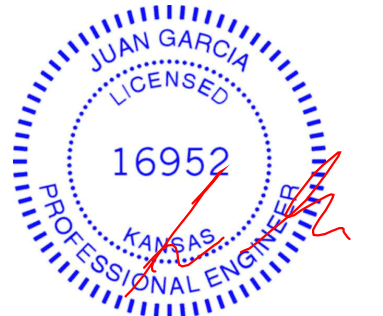
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 66 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I45381980	A1	4/21/2021	21	I45382000	C4	4/21/2021
2	I45381981	A2	4/21/2021	22	I45382001	C5	4/21/2021
3	I45381982	A3	4/21/2021	23	I45382002	D1	4/21/2021
4	I45381983	A4	4/21/2021	24	I45382003	D2	4/21/2021
5	I45381984	B1	4/21/2021	25	I45382004	D3	4/21/2021
6	I45381985	B2	4/21/2021	26	I45382005	D4	4/21/2021
7	I45381986	B3	4/21/2021	27	I45382006	D5	4/21/2021
8	I45381987	B4	4/21/2021	28	I45382007	D6	4/21/2021
9	I45381988	B6	4/21/2021	29	I45382008	D7	4/21/2021
10	I45381989	B7	4/21/2021	30	I45382009	D8	4/21/2021
11	I45381990	B8	4/21/2021	31	I45382010	D9	4/21/2021
12	I45381991	B9	4/21/2021	32	I45382011	D10	4/21/2021
13	I45381992	B10	4/21/2021	33	I45382012	D11	4/21/2021
14	I45381993	B11	4/21/2021	34	I45382013	D12	4/21/2021
15	I45381994	B12	4/21/2021	35	I45382014	D13	4/21/2021
16	I45381995	B13	4/21/2021	36	I45382015	E1	4/21/2021
17	I45381996	B14	4/21/2021	37	I45382016	E2	4/21/2021
18	I45381997	C1	4/21/2021	38	I45382017	E3	4/21/2021
19	I45381998	C2	4/21/2021	39	I45382018	J1	4/21/2021
20	I45381999	C3	4/21/2021	40	I45382019	J2	4/21/2021

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.





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No.	Seal#	Truss Name	Date
41	I45382020	J3	4/21/2021
42	I45382021	J4	4/21/2021
43	I45382022	J5	4/21/2021
44	I45382023	J6	4/21/2021
45	I45382024	J7	4/21/2021
46	I45382025	J8	4/21/2021
47	I45382026	J9	4/21/2021
48	I45382027	J10	4/21/2021
49	I45382028	J10A	4/21/2021
50	I45382029	J11	4/21/2021
51	I45382030	J12	4/21/2021
52	I45382031	J13	4/21/2021
53	I45382032	J14	4/21/2021
54	I45382033	J15	4/21/2021
55	I45382034	J16	4/21/2021
56	I45382035	J17	4/21/2021
57	I45382036	J18	4/21/2021
58	I45382037	J19	4/21/2021
59	I45382038	J20	4/21/2021
60	I45382039	J21	4/21/2021
61	I45382040	LAY1	4/21/2021
62	I45382041	LAY2	4/21/2021
63	I45382042	LAY3	4/21/2021
64	I45382043	LAY4	4/21/2021
65	I45382044	V1	4/21/2021
66	I45382045	V2	4/21/2021



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Design Code: IRC2018/TPI2014
Wind Code: ASCE716LowRise
Roof Load: 45.0 psf

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

This package includes 66 individual, dated Truss Design Drawings and 0 Additional Drawings.

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2	I45381981	A2	4/21/2021	22	I45382001	C5	4/21/2021
3	I45381982	A3	4/21/2021	23	I45382002	D1	4/21/2021
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7	I45381986	B3	4/21/2021	27	I45382006	D5	4/21/2021
8	I45381987	B4	4/21/2021	28	I45382007	D6	4/21/2021
9	I45381988	B6	4/21/2021	29	I45382008	D7	4/21/2021
10	I45381989	B7	4/21/2021	30	I45382009	D8	4/21/2021
11	I45381990	B8	4/21/2021	31	I45382010	D9	4/21/2021
12	I45381991	B9	4/21/2021	32	I45382011	D10	4/21/2021
13	I45381992	B10	4/21/2021	33	I45382012	D11	4/21/2021
14	I45381993	B11	4/21/2021	34	I45382013	D12	4/21/2021
15	I45381994	B12	4/21/2021	35	I45382014	D13	4/21/2021
16	I45381995	B13	4/21/2021	36	I45382015	E1	4/21/2021
17	I45381996	B14	4/21/2021	37	I45382016	E2	4/21/2021
18	I45381997	C1	4/21/2021	38	I45382017	E3	4/21/2021
19	I45381998	C2	4/21/2021	39	I45382018	J1	4/21/2021
20	I45381999	C3	4/21/2021	40	I45382019	J2	4/21/2021

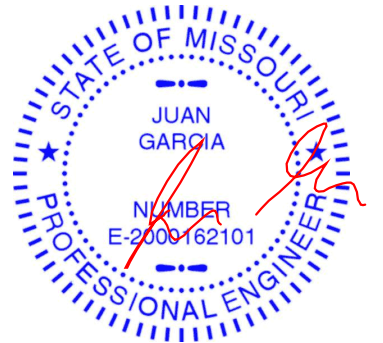
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

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.



April 21, 2021



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Site Information:

Project Customer: Project Name: 210401

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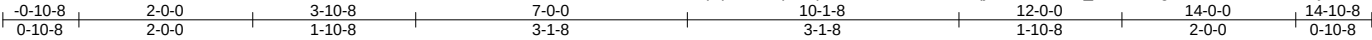
No.	Seal#	Truss Name	Date
41	I45382020	J3	4/21/2021
42	I45382021	J4	4/21/2021
43	I45382022	J5	4/21/2021
44	I45382023	J6	4/21/2021
45	I45382024	J7	4/21/2021
46	I45382025	J8	4/21/2021
47	I45382026	J9	4/21/2021
48	I45382027	J10	4/21/2021
49	I45382028	J10A	4/21/2021
50	I45382029	J11	4/21/2021
51	I45382030	J12	4/21/2021
52	I45382031	J13	4/21/2021
53	I45382032	J14	4/21/2021
54	I45382033	J15	4/21/2021
55	I45382034	J16	4/21/2021
56	I45382035	J17	4/21/2021
57	I45382036	J18	4/21/2021
58	I45382037	J19	4/21/2021
59	I45382038	J20	4/21/2021
60	I45382039	J21	4/21/2021
61	I45382040	LAY1	4/21/2021
62	I45382041	LAY2	4/21/2021
63	I45382042	LAY3	4/21/2021
64	I45382043	LAY4	4/21/2021
65	I45382044	V1	4/21/2021
66	I45382045	V2	4/21/2021

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381980
210401	A1	Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:07 2021 Page 1

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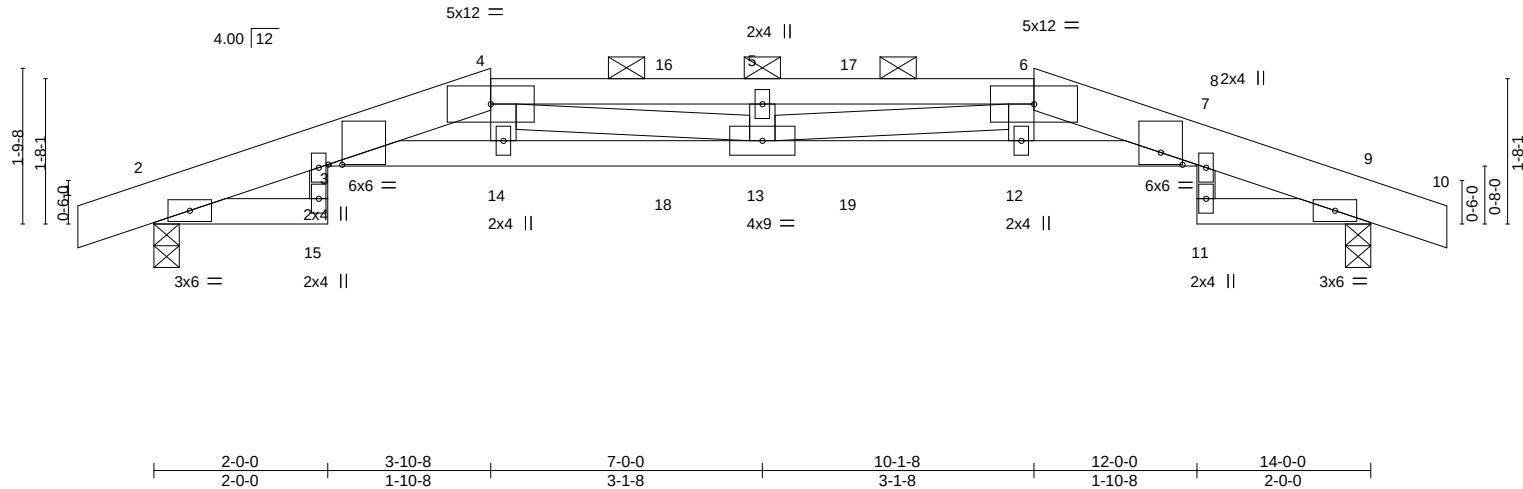


Plate Offsets (X,Y)--		[3:0-1-15,0-0-0], [7:0-3-0,0-1-11]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES	GRIP
	TCLL 25.0	Plate Grip DOL 1.15	TC 0.86		Vert(LL) -0.20 13	>837 360	MT20	197/144			
	TCDL 10.0	Lumber DOL 1.15	BC 0.73		Vert(CT) -0.35 13	>467 240					
	BCLL 0.0 *	Rep Stress Incr NO	WB 0.09		Horz(CT) 0.19 9	n/a n/a					
	BCDL 10.0	Code IRC2018/TPI2014	Matrix-S		Wind(LL) 0.17 13	>971 240	Weight: 100 lb	FT = 10%			

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4
210401	A1	Hip Girder	1	2	I45381980
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:07 2021 Page 2
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-qjdASclADYzh_RA4?GHgaHhd8L8W6YbEUNj2DWzX3ec

LOAD CASE(S) Standard

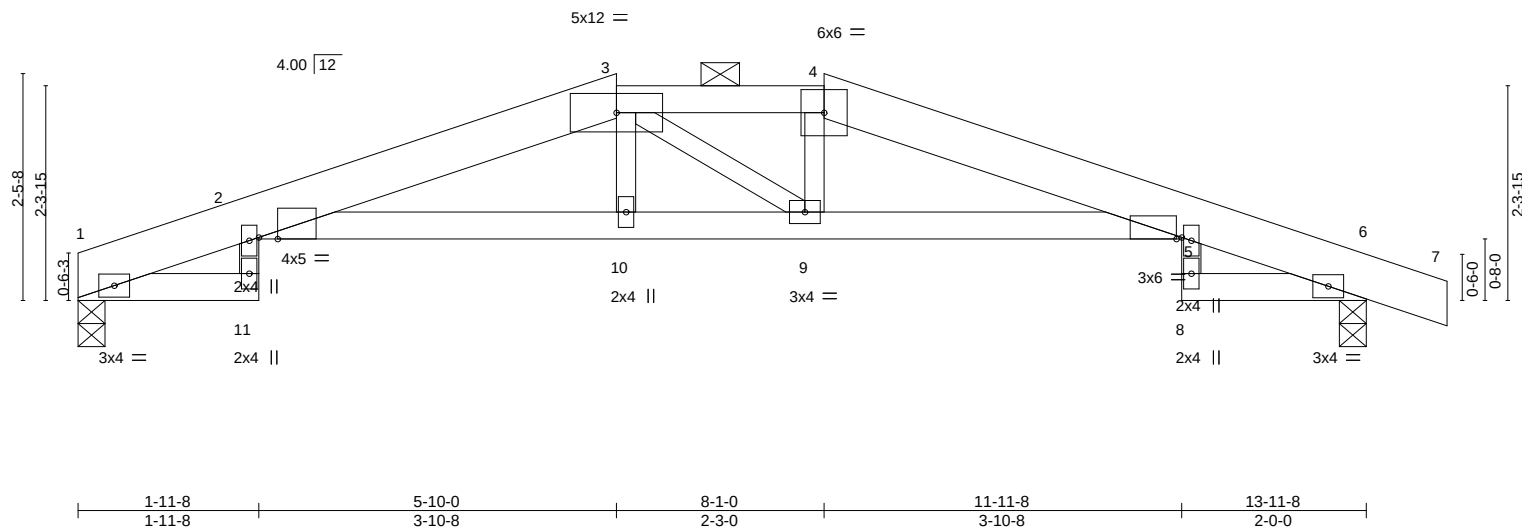
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-4=-70, 4-6=-70, 6-10=-70, 2-15=-20, 3-7=-20, 9-11=-20
- Concentrated Loads (lb)
 - Vert: 4=-65(F) 6=-65(F) 14=-195(F) 12=-195(F) 16=-65(F) 17=-65(F) 18=-4(F) 19=-4(F)



8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:08 2021 Page 1
ID:pg50?Ycap6WpLXoTu4wfY2za1nE-lvBYfxJo s5YcbkGZ ov7VPdnIWfr0OOi0TclvzX3eb

1-11-8	5-10-0	8-1-0	11-11-8	13-11-8	14-10-0
1-11-8	3-10-8	2-3-0	3-10-8	2-0-0	0-10-8

Scale = 1:25.0



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)	-0.16	5-9	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.29	5-9	>570	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.21	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12	2-10	>999	240	Weight: 47 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-8-6 oc purlins, except 2-0-0 oc purlins (4-7-14 max.): 3-4.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-3-8, 6=0-3-8
 Max Horz 1=-42(LC 13)
 Max Uplift 1=-97(LC 4), 6=-142(LC 5)
 Max Grav 1=612(LC 1), 6=689(LC 1)

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

TOP CHORD 1-2=-251/70, 2-3=-1587/227, 3-4=-1534/215, 4-5=-1586/203
BOT CHORD 2-10=-184/1531, 9-10=-182/1536, 5-9=-146/1529

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 6=142.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26.2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss A3	Truss Type Roof Special	Qty 1	Ply 1	Lot 129 H4	I45381982
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:09 2021 Page 1
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Scale: 1/2"=1'

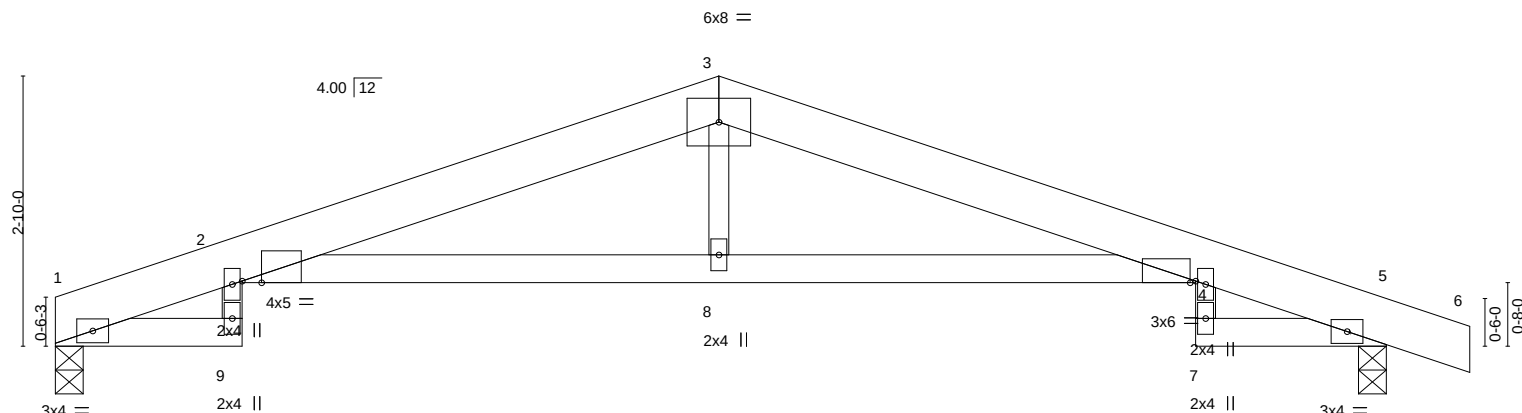


Plate Offsets (X,Y)-- [2:0-2-7,Edge], [4:0-0-11,Edge]		1-11-8 1-11-8 6-11-8 5-0-0 11-11-8 5-0-0 13-11-8 2-0-0	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.76	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.60	Vert(LL) -0.17 2-8 >964 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Vert(CT) -0.32 4-8 >520 240
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.22 5 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.13 2-8 >999 240
		PLATES	GRIP
		MT20	197/144
		Weight: 46 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=-49(LC 13)
Max Uplift 1=-89(LC 4), 5=-135(LC 5)
Max Grav 1=612(LC 1), 5=689(LC 1)

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

TOP CHORD 1-2=-251/71, 2-3=-1458/159, 3-4=-1458/174
BOT CHORD 2-8=-114/1394, 4-8=-114/1394

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) 1 except (jt=lb) 5=135.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	145381983
210401	A4	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:09 2021 Page 1
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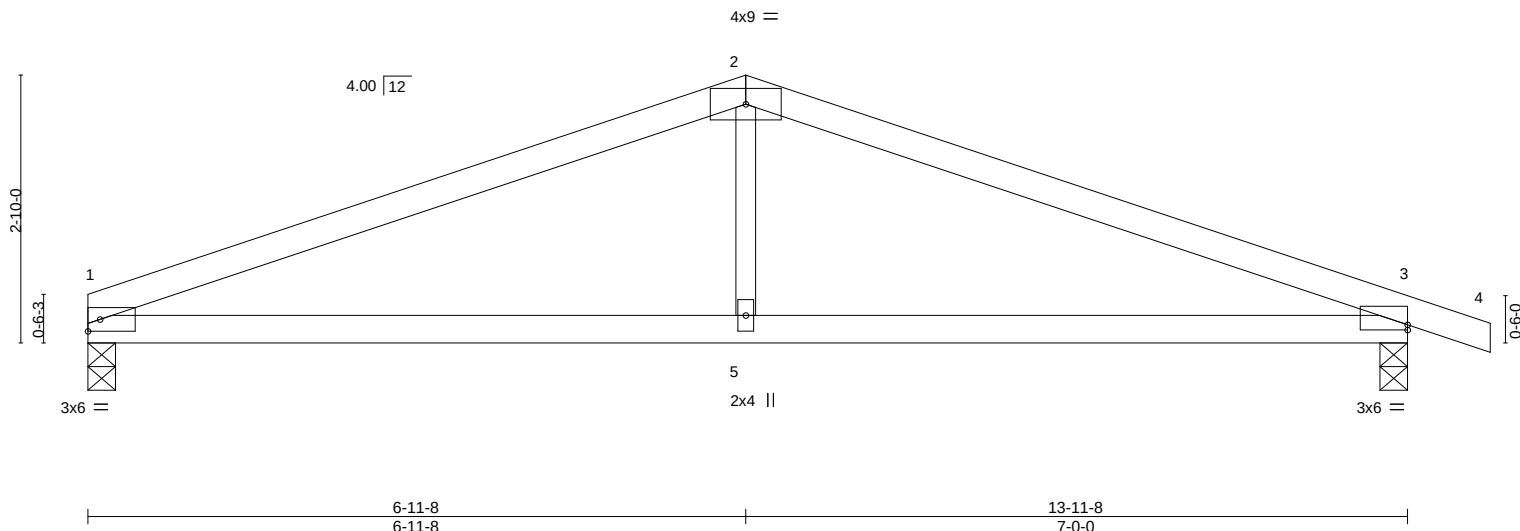
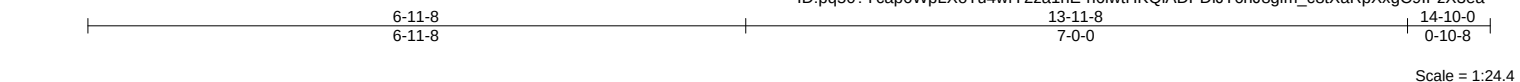


Plate Offsets (X,Y)--		[3:0-0-0,0-0-10]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.06	3-5	>999	360	MT20	197/144	
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.14	3-5	>999	240			
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.02	3	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05	3-5	>999	240			
									Weight: 36 lb	FT = 10%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 3=0-3-8
Max Horz 1=-48(LC 13)
Max Uplift 1=-89(LC 4), 3=-135(LC 5)
Max Grav 1=612(LC 1), 3=689(LC 1)

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

TOP CHORD 1-2=-1096/130, 2-3=-1097/134
BOT CHORD 1-5=-76/955, 3-5=-76/955
WEBS 2-5=0/332

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) 1 except (jt=lb) 3=135.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

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

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



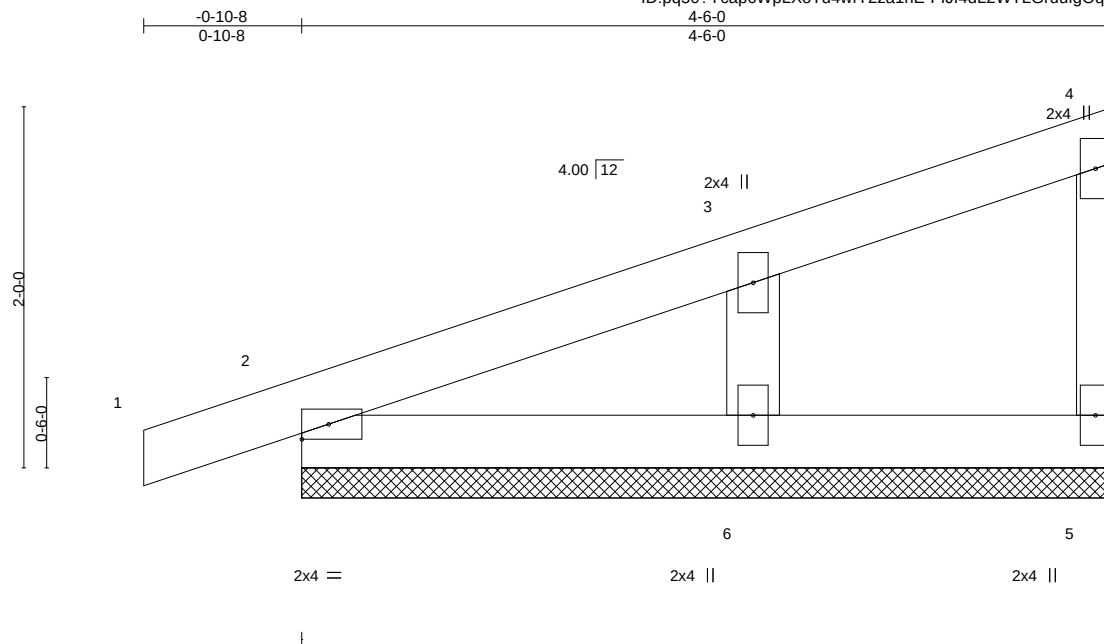
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss B1	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	Lot 129 H4 Job Reference (optional)	I45381984
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:10 2021 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-FIJI4dL2WTLGruufgOqNCwJKmYKxJvLgAKyjqrzX3eZ



Scale = 1:12.8

LOADING (psf)	SPACING-	2'-0'-0'	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 14 lb	FT = 10%

LUMBER-

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

BRACING-

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

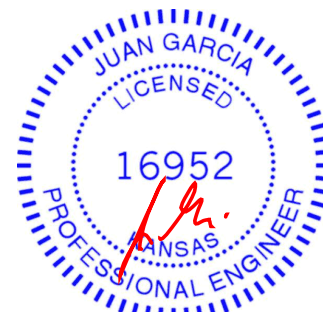
REACTIONS.

(size) 5=4'-6'-0", 2=4'-6'-0", 6=4'-6'-0"
Max Horz 2=76(LC 5)
Max Uplift 5=-9(LC 5), 2=-49(LC 4), 6=-58(LC 8)
Max Grav 5=59(LC 1), 2=165(LC 1), 6=233(LC 1)

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

NOTES-

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



March 26, 2021

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

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



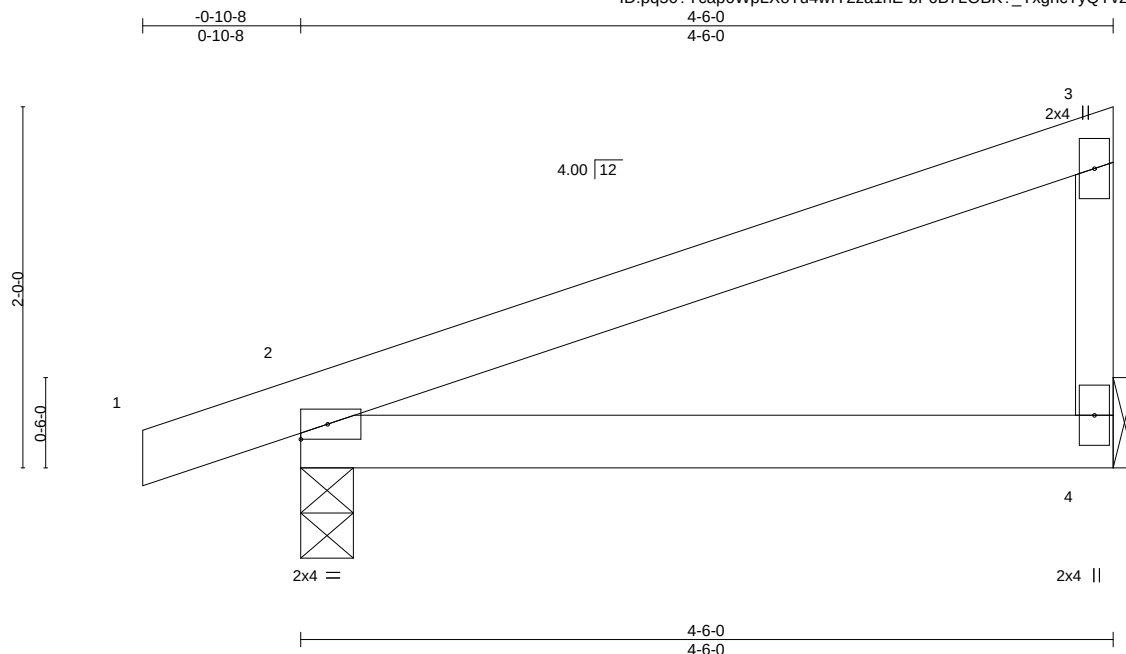
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381985
210401	B2	Monopitch	7	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:15 2021 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-bF6B7LOBK?_YxgncTyQYvz07wZ0u_AwQKcfTV2zX3eU



Scale = 1:12.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.02	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.04	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=76(LC 5)
Max Uplift 4=40(LC 8), 2=-78(LC 4)
Max Grav 4=183(LC 1), 2=271(LC 1)

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

NOTES-

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



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381987
210401	B4	Monopitch	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:17 2021 Page 1

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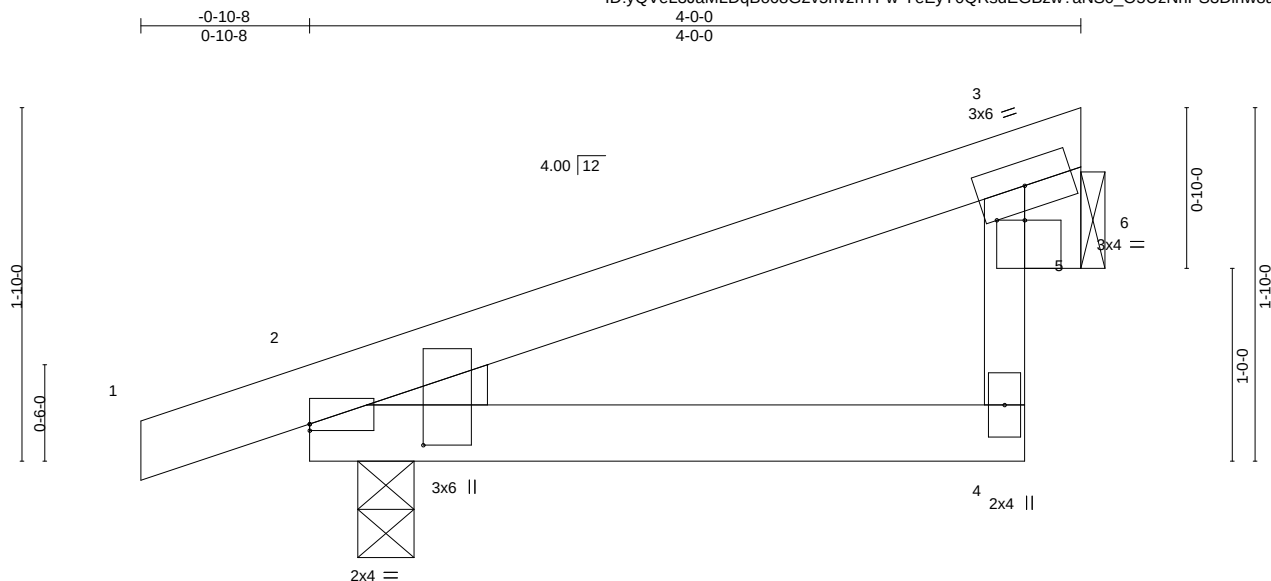


Plate Offsets (X,Y)--	[2:0-0-0,0-0-6], [2:0-1-5,0-7-1], [5:0-1-12,0-0-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.00	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.01	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	2-4	>999	240	Weight: 12 lb	FT = 10%

LUMBER-

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

WEDGE
 Left: 2x3 SPF No.2

REACTIONS. (size) 2=0-3-8, 6=Mechanical
 Max Horz 2=55(LC 5)
 Max Uplift 2=-72(LC 4), 6=-32(LC 8)
 Max Grav 2=250(LC 1), 6=132(LC 1)

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

NOTES-

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



March 26, 2021

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



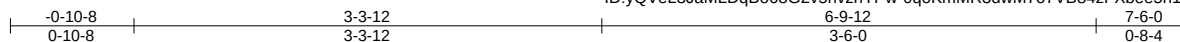
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381988
210401	B6	Roof Special Girder	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:18 2021 Page 1

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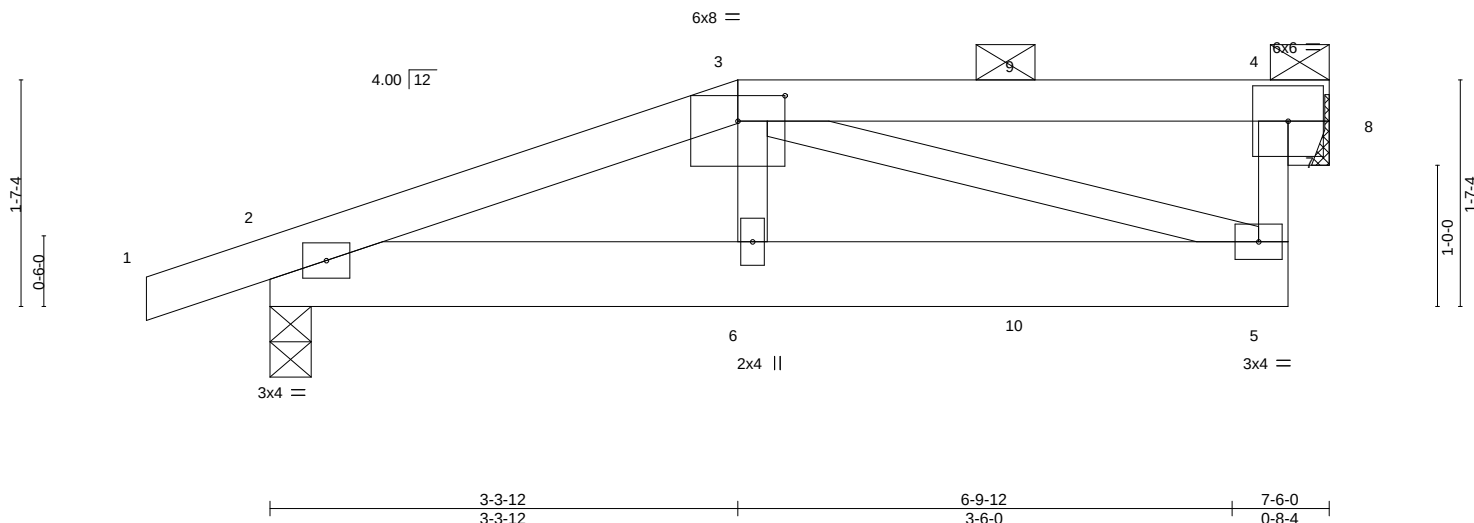


Plate Offsets (X,Y)-- [3:0-4-0,0-2-3]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.02	6	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.01	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.01	6	>999	240	Weight: 28 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 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 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=Mechanical
Max Horz 2=60(LC 4)
Max Uplift 2=-125(LC 4), 8=-76(LC 4)
Max Grav 2=402(LC 1), 8=293(LC 1)

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

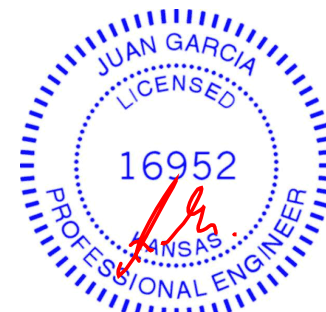
TOP CHORD 2-3=-508/117
BOT CHORD 2-6=-125/433, 5-6=-120/437
WEBS 3-5=-376/109, 4-8=-363/94

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=125.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 123 lb down and 129 lb up at 3-3-12, and 57 lb down and 39 lb up at 5-4-8 on top chord, and 14 lb down and 6 lb up at 3-3-12, and 8 lb down at 5-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



March 26, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381988
210401	B6	Roof Special Girder	1	1	Job Reference (optional)	

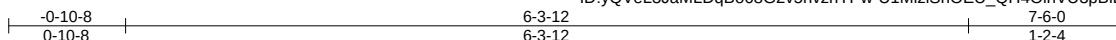
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 6=6(B) 10=-3(B)

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381989
210401	B7	Half Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:19 2021 Page 1

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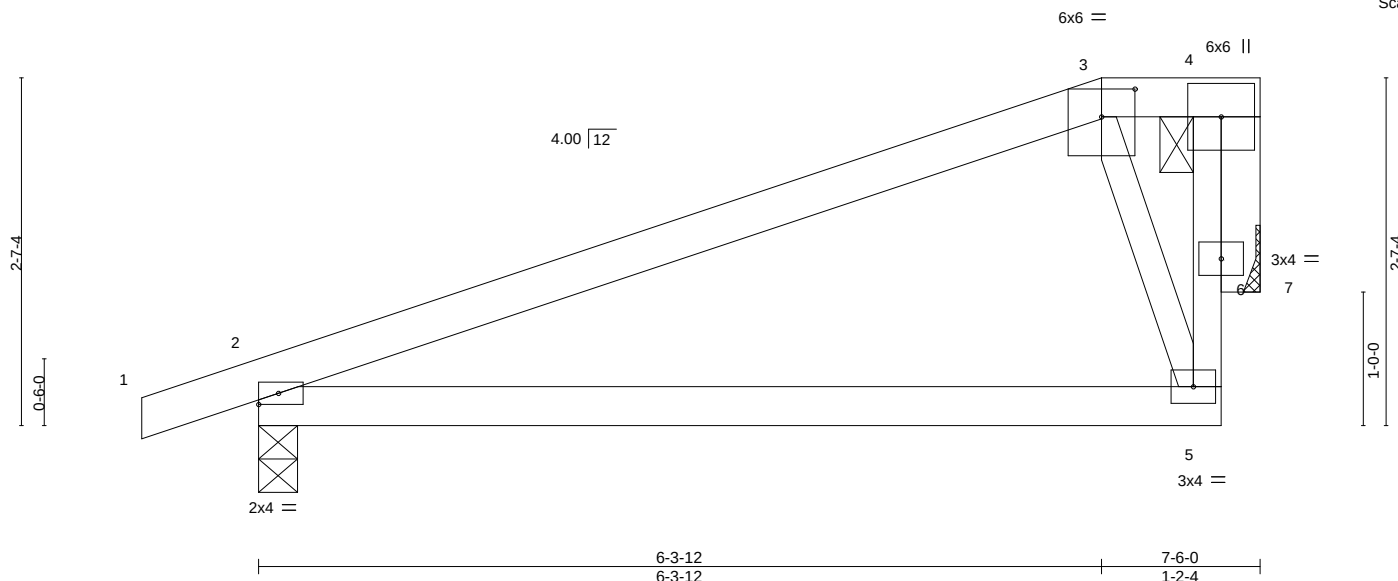


Plate Offsets (X,Y)--		[3:0-3-0,0-2-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.73	Vert(LL)	-0.14	2-5	>620	360	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.54	Vert(CT)	-0.28	2-5	>310	240	
BCLL	0.0 *	Rep Stress Incr YES		WB	0.05	Horz(CT)	0.01	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.00	5	>999	240	Weight: 23 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, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 7=Mechanical
Max Horz 2=81(LC 4)
Max Uplift 2=-94(LC 4), 7=-67(LC 4)
Max Grav 2=404(LC 1), 7=294(LC 1)

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

TOP CHORD 5-6=-52/285, 4-6=-52/285
WEBS 4-7=-301/69

NOTES-

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



March 26, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381990
210401	B8	Monopitch	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:19 2021 Page 1

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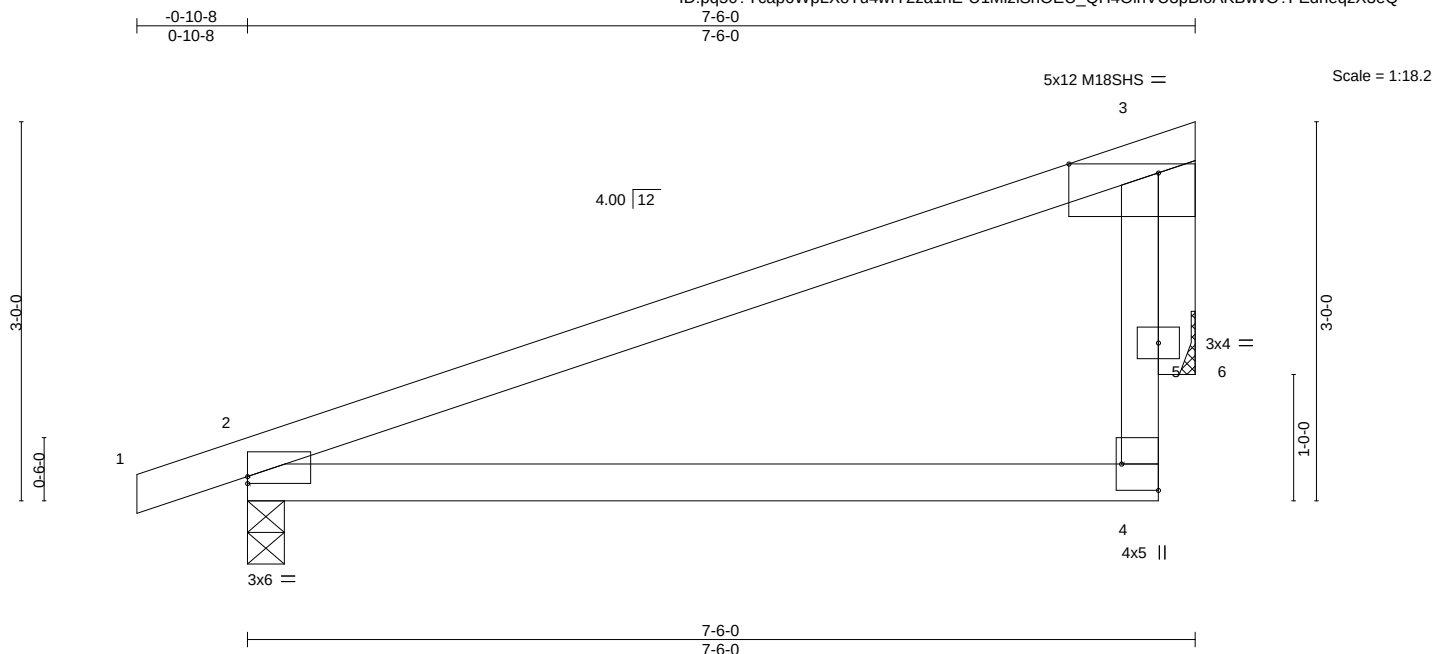


Plate Offsets (X,Y)--		[2:0-0-0,0-0-10], [3:0-8-8,Edge], [4:Edge,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56
TCDL 10.0	Lumber DOL	1.15	BC 0.35
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.05 2-4 >999 360
			Vert(CT) -0.12 2-4 >726 240
			Horz(CT) -0.01 6 n/a n/a
			Wind(LL) 0.04 2-4 >999 240
			PLATES GRIP
			MT20 197/144
			M18SHS 197/144
			Weight: 23 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=91(LC 4)
Max Uplift 2=-90(LC 4), 6=-71(LC 8)
Max Grav 2=404(LC 1), 6=290(LC 1)

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

TOP CHORD 2-3=-315/23, 3-5=-285/223

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) 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" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss B9	Truss Type Monopitch	Qty 5	Ply 1	Lot 129 H4 Job Reference (optional)	I45381991
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:20 2021 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-yDw4A2SK9Ycr2RfaGV0jc0jy9aiyfOG9TuNEBGzX3eP

0-10-8
0-10-8

6-6-0
6-6-0

Scale = 1:16.6

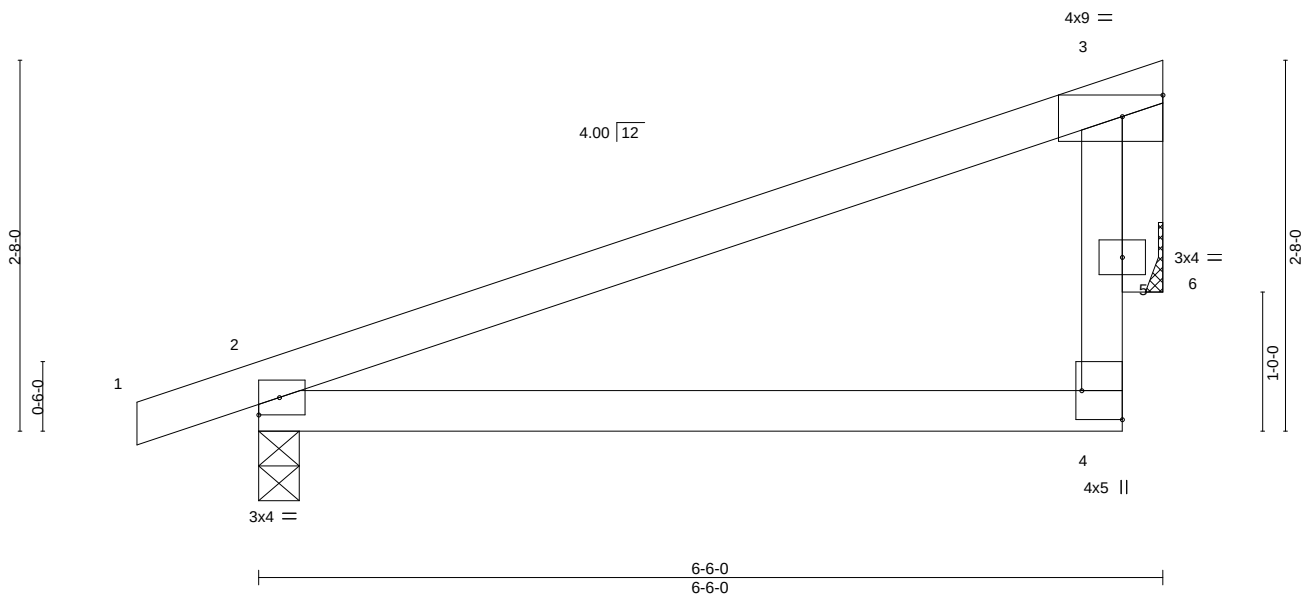


Plate Offsets (X,Y)--		[3:Edge,0-1-14], [4:Edge,0-3-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40
TCDL 10.0	Lumber DOL	1.15	BC 0.25
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.25
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.03 2-4 >999 360
			Vert(CT) -0.06 2-4 >999 240
			Horz(CT) -0.00 6 n/a n/a
			Wind(LL) 0.02 2-4 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 20 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=78(LC 5)
Max Uplift 2=-85(LC 4), 6=-60(LC 8)
Max Grav 2=359(LC 1), 6=245(LC 1)

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

TOP CHORD 2-3=-271/20

NOTES-

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



March 26, 2021

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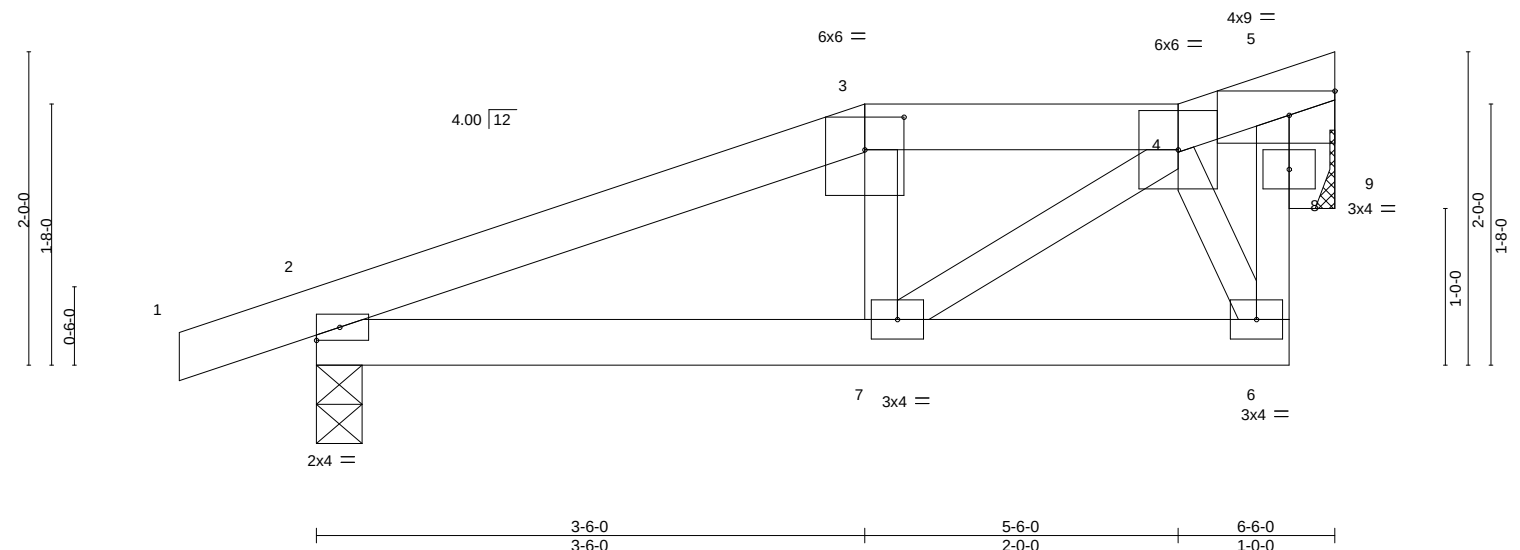
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:11 2021 Page 1
ID:yQVcL3JaMLDqBo68G2v5nvznYPw-jUtgHzLgHnT7T2TrE6Lcl7rTHyeb2LuqP_hGMHzX3eY
-0-10-8 3-6-0 5-6-0 6-6-0
0-10-8 3-6-0 2-0-0 1-0-0
Scale = 1:14



LUMBER-		BRACING-
TOP CHORD	2x4 SPF No.2	TOP CHORD
BOT CHORD	2x4 SPF No.2	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
WEBS	2x3 SPF No.2	BOT CHORD
OTHERS	2x4 SPF No.2	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 9=Mechanical
 Max Horz 2=60(LC 5)
 Max Uplift 2=-101(LC 4), 9=-62(LC 8)
 Max Grav 2=357(LC 1), 9=246(LC 1)

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

TOP CHORD	2-3=-384/62, 3-4=-307/73, 6-8=-62/280, 5-8=-62/280
BOT CHORD	2-7=-71/311
WEBS	4-6=-284/77, 5-9=-265/69

NOTES:

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 2=101.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 78 lb up at 3-6-0 on top chord, and 7 lb down and 5 lb up at 3-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70. 3-4=-70. 4-5=-70. 2-6=-20



March 26, 2021

Continued on page 2



WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE 11/4/3 rev. 5/19/2020 BEFORE USE.

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381992
210401	B10	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:11 2021 Page 2
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-jUtgHzLgHnT7T2TrE6Lcl7rTHyeb2LuqP_hGMHzX3eY

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=5(F)

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381994
210401	B12	Monopitch	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:13 2021 Page 1

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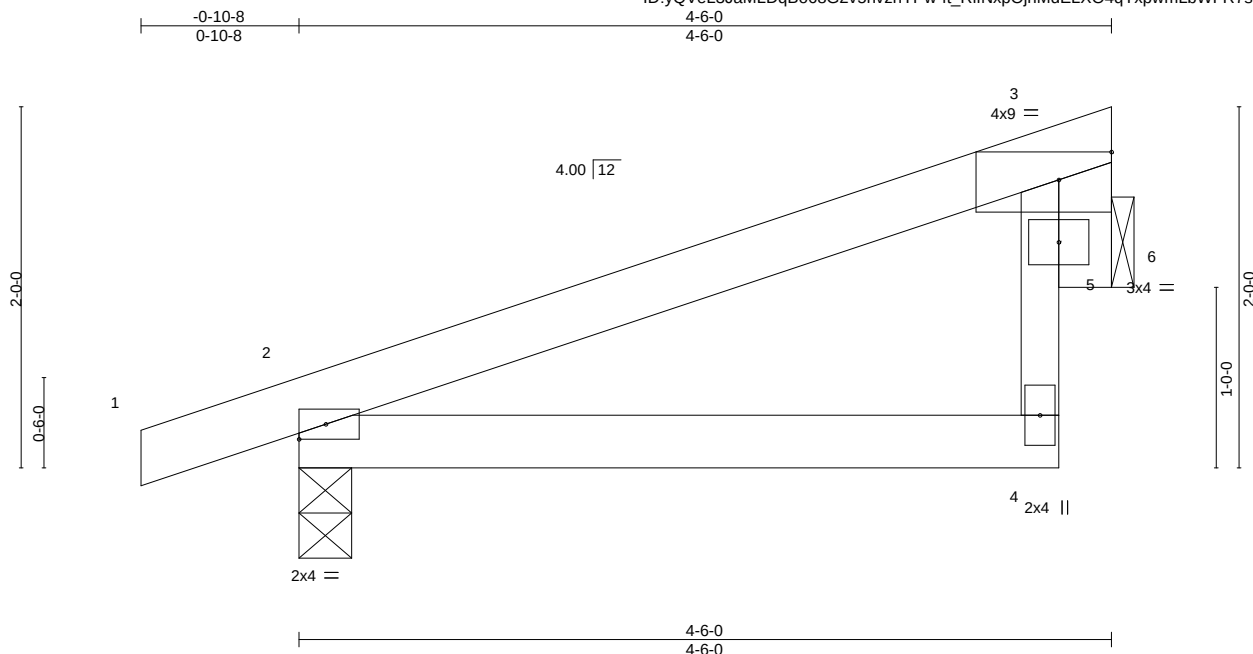


Plate Offsets (X,Y)--		[3:Edge,0-1-14]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20
TCDL 10.0	Lumber DOL	1.15	BC 0.11
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 2-4 >999 360
			Vert(CT) -0.01 2-4 >999 240
			Horz(CT) 0.00 6 n/a n/a
			Wind(LL) 0.00 2-4 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 13 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical
Max Horz 2=60(LC 5)
Max Uplift 2=-74(LC 4), 6=-38(LC 8)
Max Grav 2=272(LC 1), 6=156(LC 1)

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

NOTES-

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



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss B13	Truss Type Monopitch	Qty 2	Ply 1	Lot 129 H4 Job Reference (optional)	I45381995
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:14 2021 Page 1

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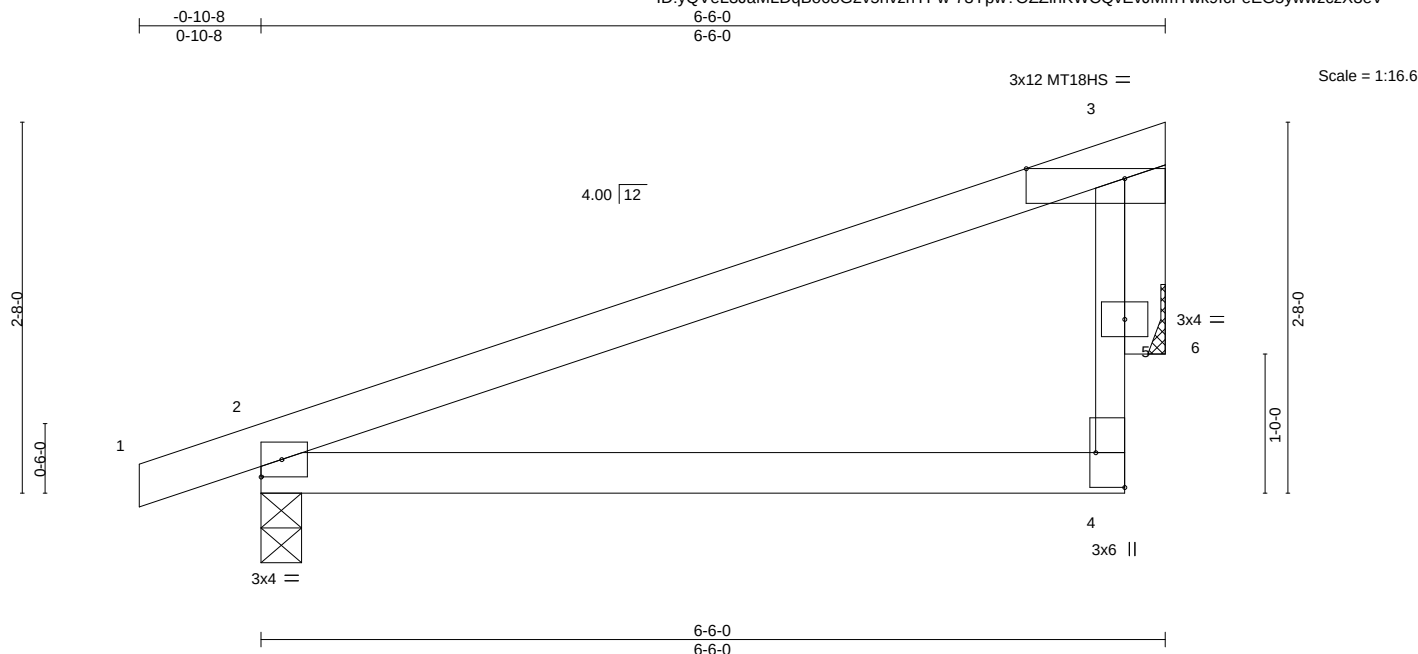


Plate Offsets (X,Y)--		[3:0-8-8,Edge], [4:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39
TCDL 10.0	Lumber DOL	1.15	BC 0.25
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.35
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.03 2-4 >999 360
			Vert(CT) -0.08 2-4 >990 240
			Horz(CT) -0.01 6 n/a n/a
			Wind(LL) 0.02 2-4 >999 240
			PLATES GRIP
			MT20 197/144
			MT18HS 197/144
			Weight: 19 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

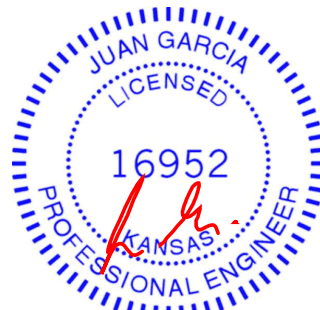
(size) 2=0-3-8, 6=Mechanical
Max Horz 2=78(LC 5)
Max Uplift 2=-85(LC 4), 6=-61(LC 8)
Max Grav 2=360(LC 1), 6=248(LC 1)

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

TOP CHORD 2-3=-258/20, 3-5=-273/175

NOTES-

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



March 26, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381996
210401	B14	Half Hip Girder	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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ID:YQVeL3JaMLDqBo68G2v5nvznYPw-bF6B7LOBK?_YxgncTyQYvz08XZ0U_7?QKcfTV2zX3eU



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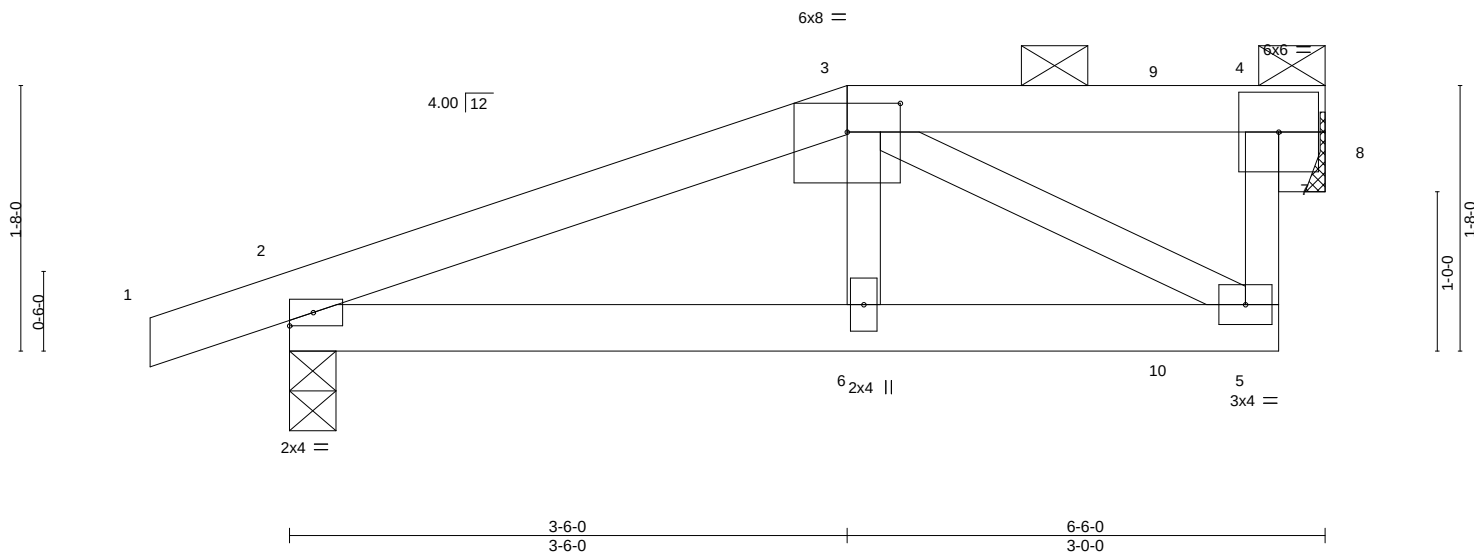


Plate Offsets (X,Y)-- [3:0-4-0,0-2-3]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	2-6	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.01	2-6	>999	240	
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.01	8	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.01	6	>999	240	Weight: 20 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 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 8=Mechanical
Max Horz 2=61(LC 4)
Max Uplift 2=-104(LC 4), 8=-70(LC 4)
Max Grav 2=357(LC 1), 8=245(LC 1)

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

TOP CHORD 2-3=-383/76
BOT CHORD 2-6=-89/309, 5-6=-86/314
WEBS 3-5=-288/80, 4-8=-291/83

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=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.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 141 lb down and 115 lb up at 3-6-0, and 47 lb down and 35 lb up at 5-6-12 on top chord, and 15 lb down and 5 lb up at 3-6-0, and 8 lb down and 0 lb up at 5-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



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Continued on page 2

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381996
210401	B14	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:15 2021 Page 2
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-bF6B7LOBK?_YxgncTyQYvz08XZ0U_7?QKcfTV2zX3eU

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 6=5(F) 10=0(F)

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45381997
210401	C1	Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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0-10-8

3-5-4

10-9-5

18-2-11

25-6-12

29-0-0

29-10-8

0-10-8

3-5-4

7-4-1

7-5-5

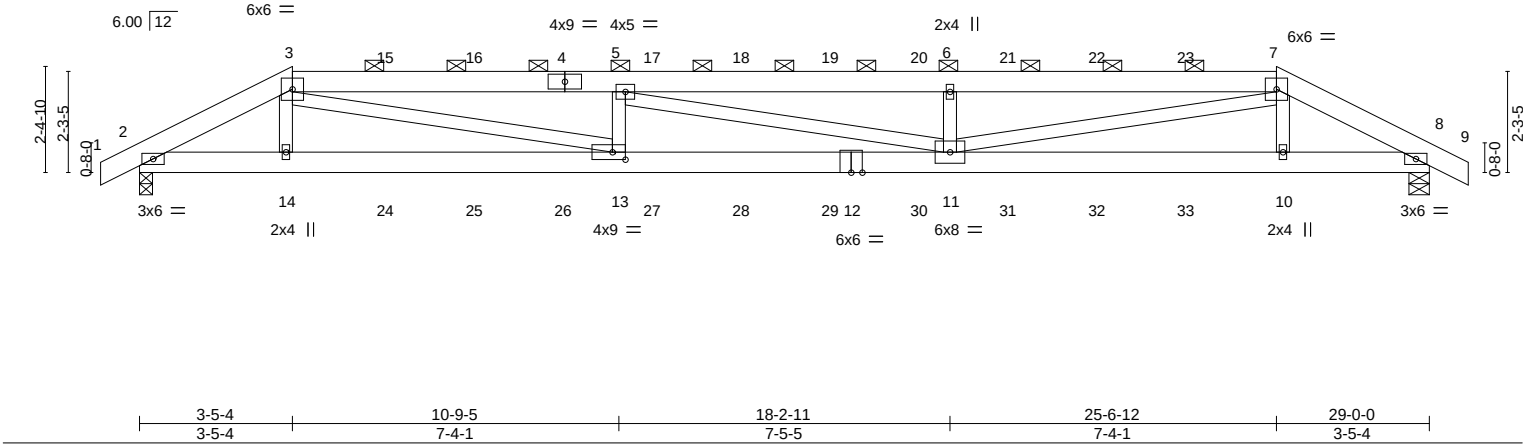
7-4-1

3-5-4

0-10-8

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-MobDp4VCST_QvuO9xdZQEfLU8obbsiNbAsbvnbzX3eM

Scale = 1:51.8



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.24 11-13 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.45 11-13 >764 240				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.05 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.23 11-13 >999 240	Weight: 282 lb		FT = 10%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD	2x6 SPF No.2	BOT CHORD	2-0-0 oc purlins (6-0-0 max.): 3-7.
WEBS	2x4 SPF No.2		Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-5-8
Max Horz 2=-37(LC 30)
Max Uplift 2=-362(LC 5), 8=-364(LC 4)
Max Grav 2=1694(LC 1), 8=1702(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3286/751, 3-5=-6097/1509, 5-6=-6074/1503, 6-7=-6074/1503, 7-8=-3241/742
BOT CHORD 2-14=-655/2850, 13-14=-662/2831, 11-13=-1481/6097, 10-11=-631/2775, 8-10=-623/2795
WEBS 3-14=0/373, 3-13=-859/3379, 5-13=-631/334, 6-11=-634/334, 7-11=-864/3410, 7-10=0/374

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=362, 8=364.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4
210401	C1	Hip Girder	1	2	I45381997
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

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ID:yQVeL3JaMLDqBo68G2v5nvznYPw-MobDp4VCST_QvuO9xdZQEFLU8obbsiNbAsbvnbzX3eM

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 162 lb down and 138 lb up at 3-5-4, 78 lb down and 65 lb up at 5-6-0, 78 lb down and 65 lb up at 7-6-0, 78 lb down and 65 lb up at 9-6-0, 78 lb down and 65 lb up at 11-6-0, 78 lb down and 65 lb up at 13-6-0, 78 lb down and 65 lb up at 15-6-0, 78 lb down and 65 lb up at 17-6-0, 78 lb down and 65 lb up at 19-6-0, 78 lb down and 65 lb up at 21-6-0, and 78 lb down and 65 lb up at 23-6-0, and 162 lb down and 138 lb up at 25-6-12 on top chord, and 55 lb down at 3-5-4, 23 lb down at 5-6-0, 23 lb down at 7-6-0, 23 lb down at 9-6-0, 23 lb down at 11-6-0, 23 lb down at 13-6-0, 23 lb down at 15-6-0, 23 lb down at 17-6-0, 23 lb down at 19-6-0, 23 lb down at 21-6-0, and 23 lb down at 23-6-0, and 55 lb down at 25-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 3=-64(F) 4=-30(F) 14=-37(F) 7=-64(F) 10=-37(F) 15=-30(F) 16=-30(F) 17=-30(F) 18=-30(F) 19=-30(F) 20=-30(F) 21=-30(F) 22=-30(F) 23=-30(F) 24=-17(F) 25=-17(F) 26=-17(F) 27=-17(F) 28=-17(F) 29=-17(F) 30=-17(F) 31=-17(F) 32=-17(F) 33=-17(F)

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
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8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:25 2021 Page 1
ID: vOYeL3JaMLDgBo68G2v5nvznYPw-JBzEiWS 4E88CYX22buJ4OhoBGFkFudA4?sTzX3eK

-0-10-8	7-5-4		14-6-0		21-6-12		29-0-0		29-10-8
0-10-8	7-5-4		7-0-12		7-0-12		7-5-4		0-10-8

Scale = 1:50.9

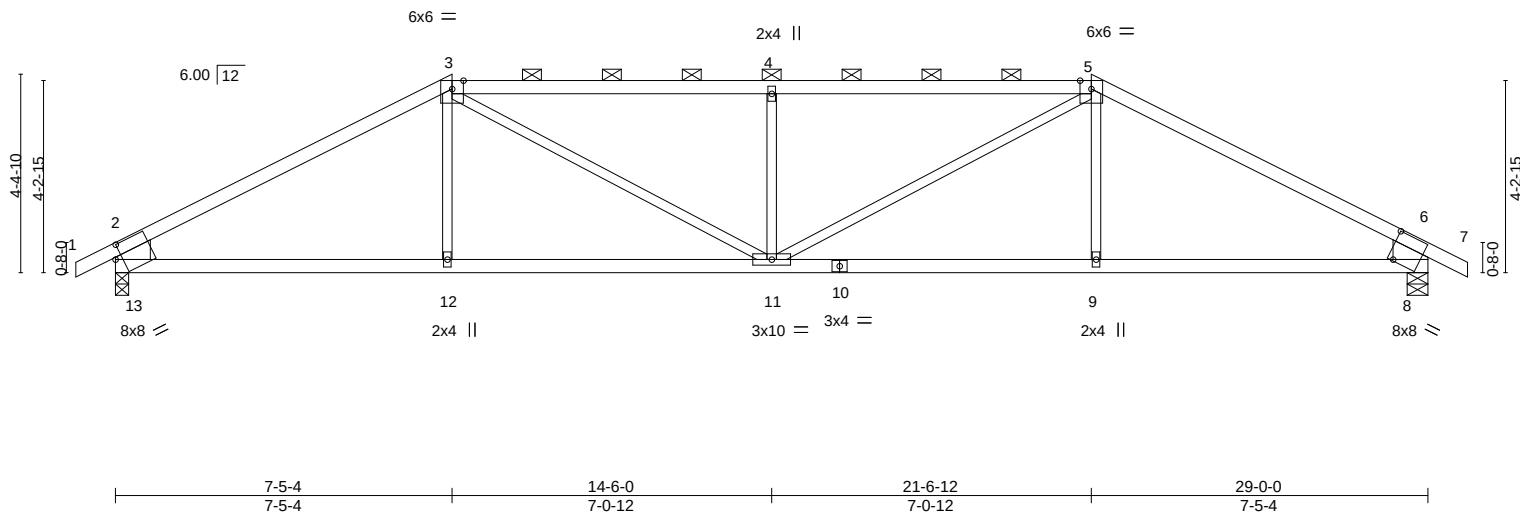


Plate Offsets (X,Y)-- [8:0-1-8,0-7-10], [13:0-1-13,0-3-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.21	9-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.41	9-11	>819	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.16	9-11	>999	240	Weight: 96 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,6-8: 2x10 SP DSS

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-5-13 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 13=0-3-8, 8=0-5-8
 Max Horz 13=-74(LC 6)
 Max Uplift 13=-122(LC 8), 8=-122(LC 9)
 Max Grav 13=1359(LC 1), 8=1359(LC 1)

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

TOP CHORD 2-3=-2022/233, 3-4=-2379/346, 4-5=-2379/346, 5-6=-2022/233, 2-13=-1255/170,
6-8=-1255/170

BOT CHORD 12-13=-184/1679, 11-12=-186/1677, 9-11=-125/1677, 8-9=-123/1679

WEBS 3-12=0/255, 3-11=-201/915, 4-11=-635/245, 5-11=-201/915, 5-9=0/255

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=122, 8=122.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26, 2021

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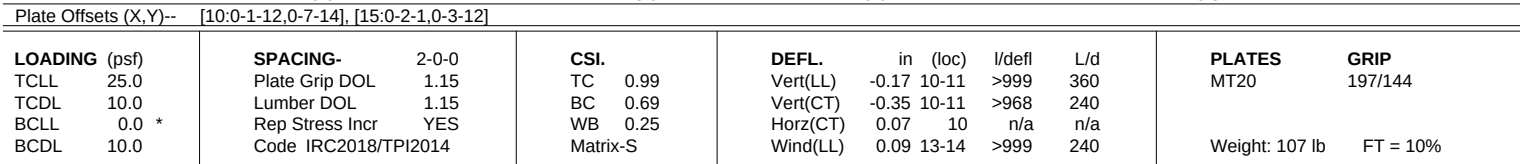
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personnel 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 Code**

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



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Scale = 1:50.9

LUMBER-
TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15.8-10: 2x10 SP DSS

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

REACTIONS. (size) 15=0-3-8, 10=0-5-8
 Max Horz 15=-87(LC 6)
 Max Uplift 15=-144(LC 8), 10=-144(LC 9)
 Max Grav 15=1359(LC 1), 10=1359(LC 1)

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

TOP CHORD 2-3=-1961/238, 3-4=-1831/162, 4-5=-1834/213, 5-6=-1834/213, 6-7=-1831/163,
7-8=-1961/238, 2-15=-1256/191, 8-10=-1256/191

BOT CHORD 14-15=-223/1609, 13-14=-110/1586, 11-13=-58/1586, 10-11=-153/1609

WEBS 4-14=0/293, 4-13=-134/456, 5-13=-414/169, 6-13=-134/456, 6-11=0/293

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=144, 10=144.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26.2021



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382001
210401	C5	Hip	1	1		

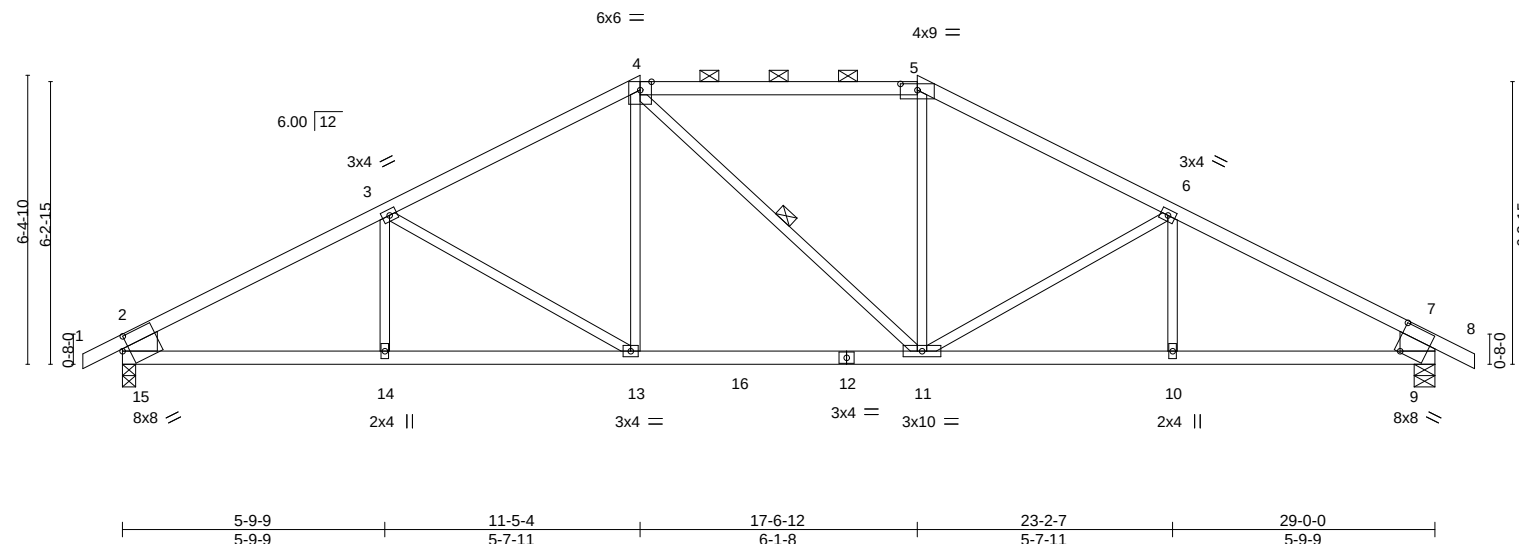
Wheeler Lumber, Waverly, KS - 66871,

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ID: yQVeL3JaMLDqBo68G2v5nvznYPw-FZrkeRYjWhUsOWhwATeMOVW47P?loXOB4UZ6wMzX3el

0-10-8 5-9-9 11-5-4 17-6-12 23-2-7 29-0-0 29-10-8
0-10-8 5-9-9 5-7-11 6-1-8 5-7-11 5-9-9 0-10-8

Scale = 1:50.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.17 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.30 13-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.06 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 13-14	>999	240	Weight: 106 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-15,7-9: 2x10 SP DSS

BRACING-

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

REACTIONS.

(size) 15=0-3-8, 9=0-5-8
Max Horz 15=-99(LC 6)
Max Uplift 15=-163(LC 8), 9=-163(LC 9)
Max Grav 15=1398(LC 2), 9=1393(LC 2)

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

TOP CHORD 2-3=-2079/209, 3-4=-1756/177, 4-5=-1520/197, 5-6=-1745/177, 6-7=-2070/210,
2-15=-1228/191, 7-9=-1228/191
BOT CHORD 14-15=-195/1747, 13-14=-195/1747, 11-13=-48/1530, 10-11=-107/1740, 9-10=-107/1740
WEBS 3-13=-284/170, 4-13=-15/412, 5-11=0/387, 6-11=-285/171

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=163, 9=163.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382002
210401	D1	Roof Special Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:yQVeL3JaMLDqBo68G2v5nvznYPw-ByyU37Zz1JkZdprJHugqTwbMcCbVGIZTYo2D?FzX3eG

Job Reference (optional)

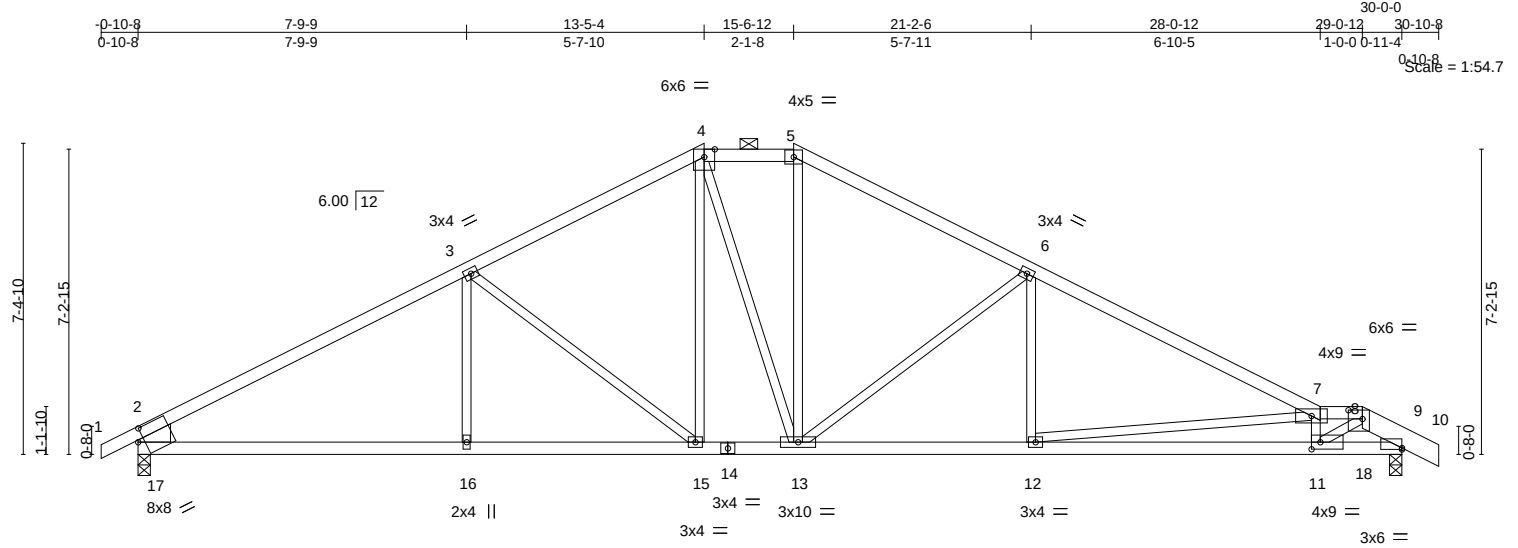


Plate Offsets (X,Y)--		[8:0-4-0,0-2-8], [9:0-0-0,0-0-7], [11:0-2-8,0-2-0], [17:0-1-13,0-3-8]									
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL 25.0		2-0-0		TC 0.99		in (loc) l/defl L/d		MT20		197/144	
TCDL 10.0		Plate Grip DOL 1.15		BC 0.93		Vert(LL) -0.17 15-16 >999 360					
BCLL 0.0 *		Lumber DOL 1.15		WB 0.89		Vert(CT) -0.31 15-16 >999 240					
BCDL 10.0		Rep Stress Incr NO		Matrix-S		Horz(CT) 0.09 9 n/a n/a					
		Code IRC2018/TPI2014				Wind(LL) 0.09 11-12 >999 240		Weight: 119 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-5,7-8: 2x4 SPF No.2, 8-10: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-17: 2x10 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-15 max.): 4-5, 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 17=0-3-8, 9=0-3-8
Max Horz 17=-121(LC 13)
Max Uplift 17=-182(LC 8), 9=-188(LC 9)
Max Grav 17=1415(LC 1), 9=1396(LC 1)

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

TOP CHORD 2-3=-2101/234, 3-4=-1639/216, 4-5=-1396/234, 5-6=-1668/224, 6-7=-2291/269, 7-8=-2783/353, 8-9=-1793/183, 2-17=-1305/227
BOT CHORD 16-17=-217/1740, 15-16=-217/1740, 13-15=-56/1387, 12-13=-121/1988, 11-12=-286/2648, 9-11=-104/1264
WEBS 3-15=-487/201, 4-15=-79/386, 5-13=-56/476, 6-13=-740/226, 6-12=0/342, 7-12=-666/166, 7-11=-1059/246, 8-11=-270/1862

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=182, 9=188.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 12 lb up at 29-0-12 on top chord, and 3 lb down and 1 lb up at 29-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Continued on page 2



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4
210401	D1	Roof Special Girder	1	1	I45382002
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:29 2021 Page 2
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-ByyU37Zz1JkZdprJHugqTwbMcCbVGIZTYo2D?FzX3eG

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-7=-70, 7-8=-70, 8-10=-70, 9-17=-20
- Concentrated Loads (lb)
 - Vert: 18=1(F)

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	145382003
210401	D2	Roof Special	1	1	Job Reference (optional)	

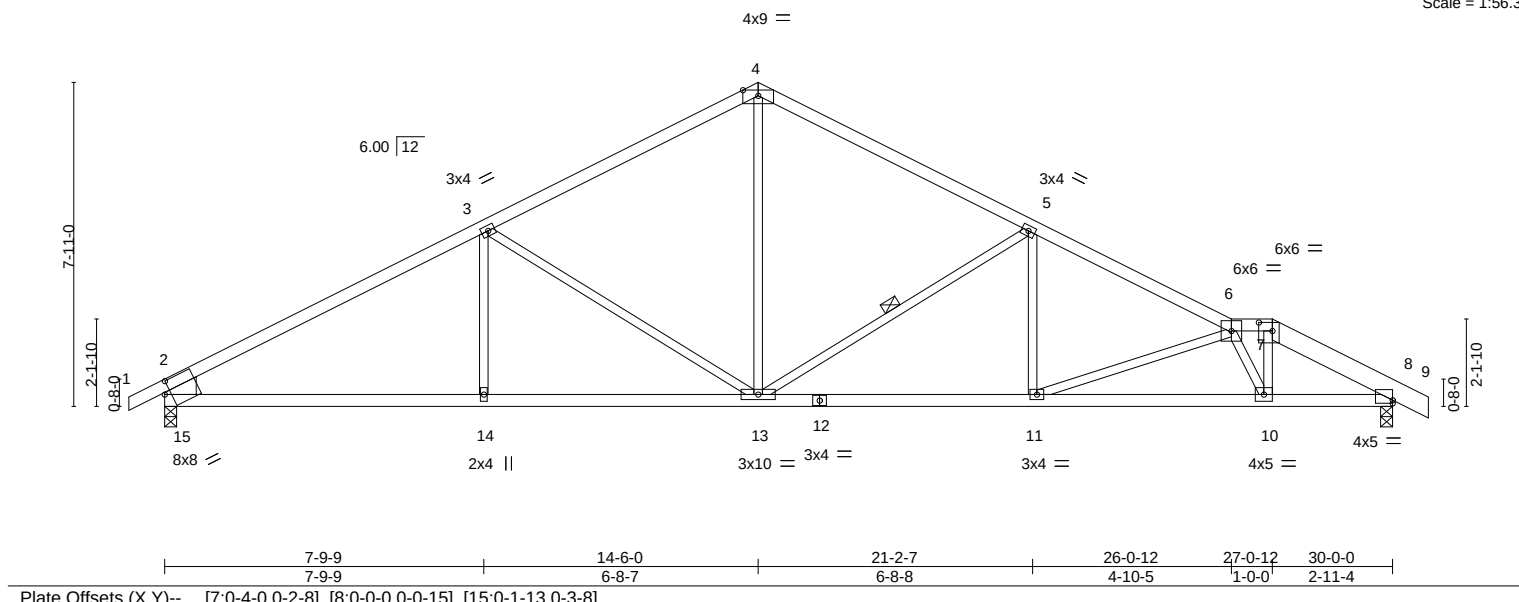
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:36 2021 Page 1

ID: yQVleL3JaMLDqBo68G2v5nvznYPw-Ult7XWfMOSdazutCsiTG0Oaq1?CPSyV9NF5ILzX3e9

0-10-8 7-9-9 14-6-0 21-2-7 26-0-12 27-0-12 30-0-0 30-10-8
0-10-8 7-9-9 6-8-7 6-8-8 4-10-5 1-0-0 2-11-4 0-10-8

Scale = 1:56.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.86	Vert(LL)	-0.18 13-14 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.35 13-14 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.09 8 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.11 13-14 >999 240				
								Weight: 111 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x4 SPF 2100F 1.8E, 7-9: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15: 2x10 SP DSS

BRACING-

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

REACTIONS.

(size) 15=0-3-8, 8=0-3-8
Max Horz 15=-131(LC 9)
Max Uplift 15=-189(LC 8), 8=-194(LC 9)
Max Grav 15=1415(LC 1), 8=1397(LC 1)

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

TOP CHORD 2-3=-2111/252, 3-4=-1569/244, 4-5=-1576/233, 5-6=-2235/291, 6-7=-1922/257,
7-8=-2266/266, 2-15=-1305/233
BOT CHORD 14-15=-243/1752, 13-14=-243/1752, 11-13=-130/1966, 10-11=-244/2355, 8-10=-172/1861
WEBS 3-14=0/258, 3-13=-584/227, 4-13=-68/852, 5-13=-787/243, 5-11=0/355, 6-11=-416/122,
6-10=-996/152, 7-10=-80/973

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=189, 8=194.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	145382004
210401	D3	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

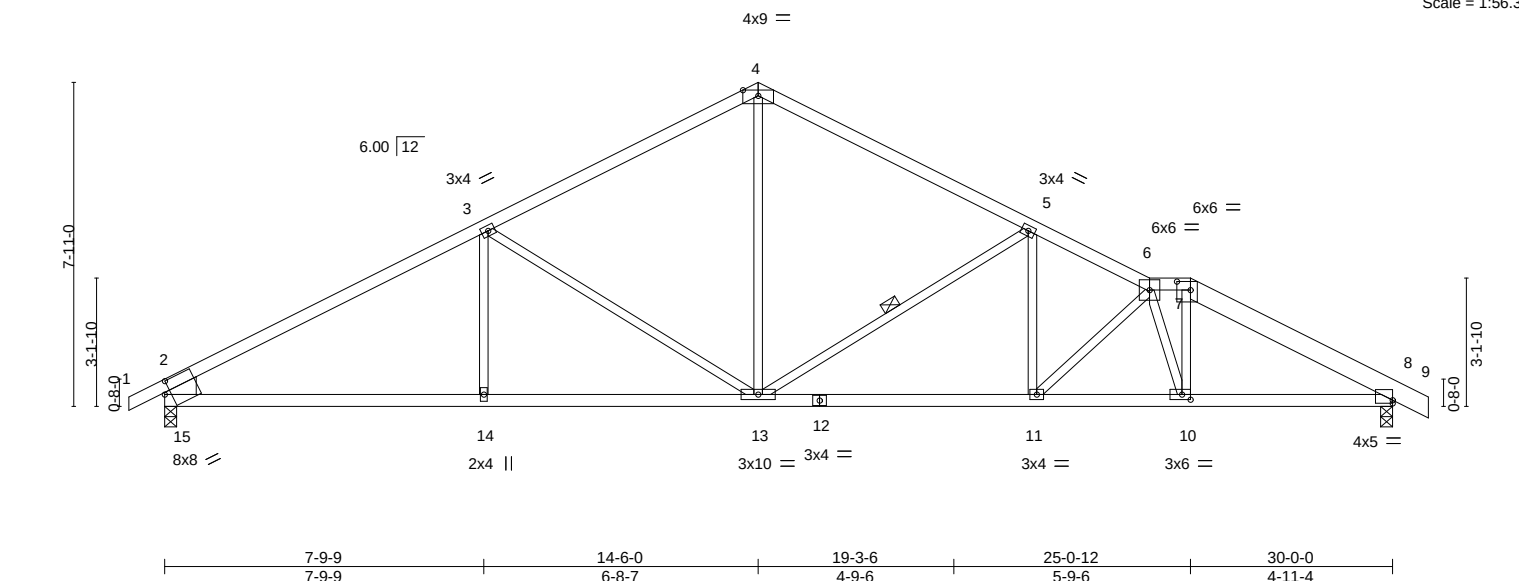
8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:37 2021 Page 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-yURVIsf_9mlRa2SrlZpicwlaRLR8vDfO1_eHnzX3e8

Job Reference (optional)

0-10-8 7-9-9 14-6-0 21-2-7 24-0-12 25-0-12 30-0-0 30-10-8
0-10-8 7-9-9 6-8-7 6-8-7 2-10-5 1-0-0 4-11-4 0-10-8

Scale = 1:56.3



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 0.86	Vert(LL)	-0.18 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.34 13-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.09 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10 13-14	>999	240	Weight: 113 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x4 SPF 2100F 1.8E, 7-9: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15: 2x10 SP DSS

BRACING-

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

REACTIONS.

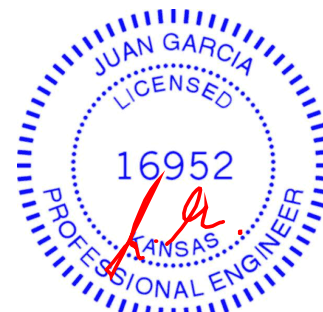
(size) 15=0-3-8, 8=0-3-8
Max Horz 15=-131(LC 9)
Max Uplift 15=-189(LC 8), 8=-194(LC 9)
Max Grav 15=1415(LC 1), 8=1397(LC 1)

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

TOP CHORD 2-3=-2111/252, 3-4=-1570/244, 4-5=-1576/233, 5-6=-2184/295, 6-7=-1957/288,
7-8=-2287/278, 2-15=-1305/233
BOT CHORD 14-15=-244/1751, 13-14=-244/1751, 11-13=-129/1955, 10-11=-173/2141, 8-10=-165/1922
WEBS 3-14=0/256, 3-13=-583/227, 4-13=-66/849, 5-13=-775/243, 5-11=0/346, 6-11=-262/62,
6-10=-642/57, 7-10=-7/697

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=189, 8=194.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss D4	Truss Type Roof Special	Qty 1	Ply 1	Lot 129 H4	I45382005
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Wheeler Lumber, Waverly, KS - 66871,

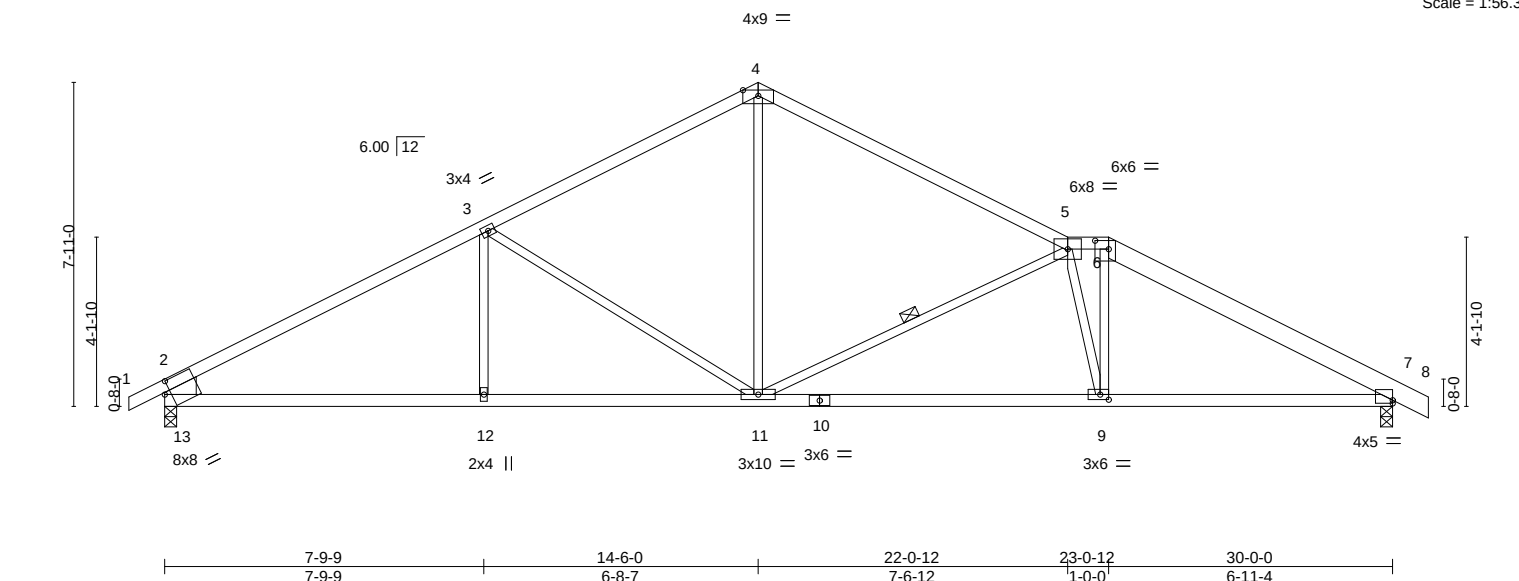
8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:38 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-Qh?uyCgcw4tIC11JHKxLpTwMrhjtNfochkBpDzX3e7

Job Reference (optional)

0-10-8 7-9-9 14-6-0 22-0-12 23-0-12 30-0-0 30-10-8
0-10-8 7-9-9 6-8-7 7-6-12 1-0-0 6-11-4 0-10-8

Scale = 1:56.3



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 0.86	Vert(LL)	-0.18 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.33 9-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.09 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10 11-12	>999	240	Weight: 111 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
5-6: 2x4 SPF No.2, 6-8: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13: 2x10 SP DSS

BRACING-

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

REACTIONS.

(size) 13=0-3-8, 7=0-3-8
Max Horz 13=-131(LC 9)
Max Uplift 13=-189(LC 8), 7=-194(LC 9)
Max Grav 13=1415(LC 1), 7=1397(LC 1)

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

TOP CHORD 2-3=-2108/252, 3-4=-1576/243, 4-5=-1590/228, 5-6=-1900/281, 6-7=-2237/252, 2-13=-1305/234
BOT CHORD 12-13=-244/1748, 11-12=-244/1748, 9-11=-149/2023, 7-9=-120/1878
WEBS 3-11=-575/228, 4-11=-52/802, 5-11=-801/251, 5-9=-552/125, 6-9=-26/706

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=189, 7=194.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26, 2021

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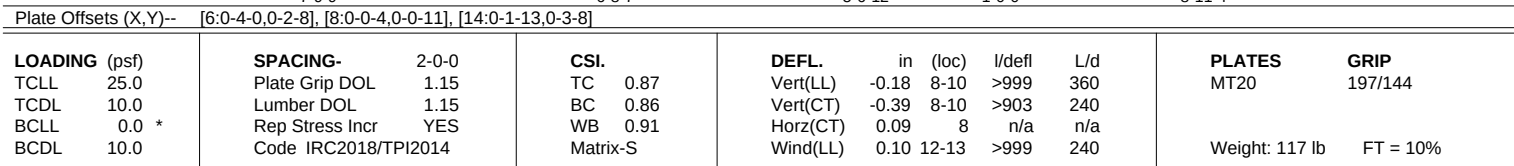
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871

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LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x4 SPF 2100F 1.8E, 6-9: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-8 max.): 5-6.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x3 SPF No.2 *Except* 2-14: 2x10 SP DSS		

REACTIONS. (size) 14=0-3-8, 8=0-3-8
 Max Horz 14=-131(LC 9)
 Max Uplift 14=-189(LC 8), 8=-194(LC 9)
 Max Grav 14=1415(LC 1), 8=1397(LC 1)

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

TOP CHORD 2-3=-2113/251, 3-4=-1566/246, 4-5=-1539/236, 5-6=-1752/263, 6-7=-2021/256,
7-8=-2272/335, 2-14=-1306/233

BOT CHORD 13-14=-243/1753, 12-13=-243/1753, 10-12=-75/1807, 8-10=-224/1922

WEBS 3-13=0/267, 3-12=-587/225, 4-12=-79/857, 5-12=-678/200, 5-10=-331/106,
6-13=-54/584

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=189, 8=194.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382007
210401	D6	Roof Special	1	1		

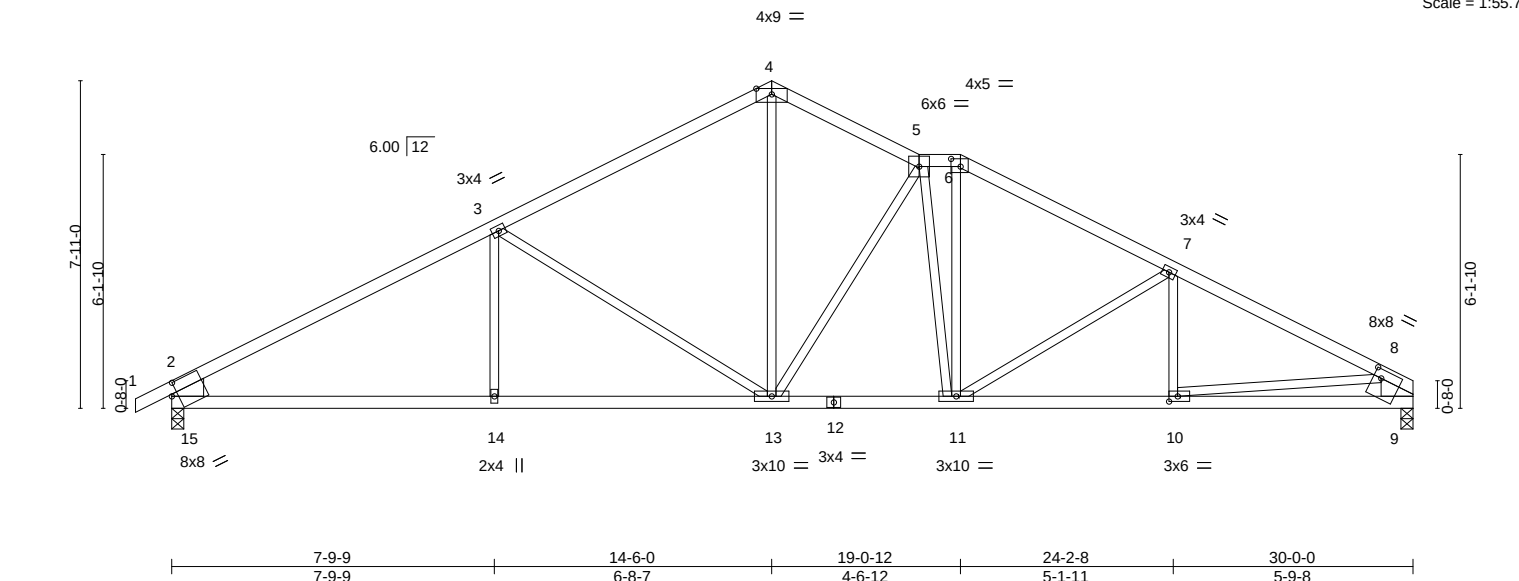
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:40 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-M37eNuisSh7?RVBQRiNPQEYGueNEKGS4?Dlu6zX3e5

-0-10-8	7-9-9	14-6-0	18-0-12	19-0-12	24-2-8	30-0-0
0-10-8	7-9-9	6-8-7	3-6-12	1-0-0	5-1-11	5-9-8

Scale = 1:55.7



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)	-0.18 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.34 13-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.07 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.10 13-14	>999	240	Weight: 118 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-4: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15,8-9: 2x10 SP DSS

BRACING-

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

REACTIONS.

(size) 15=0-3-8, 9=0-3-8
Max Horz 15=128(LC 8)
Max Uplift 15=189(LC 8), 9=168(LC 9)
Max Grav 15=1405(LC 1), 9=1313(LC 1)

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

TOP CHORD 2-3=-2095/250, 3-4=-1545/242, 4-5=-1461/238, 5-6=-1540/264, 6-7=-1801/256,
7-8=-2135/273, 2-15=-1297/232, 8-9=-1250/196
BOT CHORD 14-15=-247/1738, 13-14=-247/1738, 11-13=-70/1568, 10-11=-188/1837, 9-10=-74/369
WEBS 3-14=0/268, 3-13=-587/225, 4-13=-111/882, 5-13=-569/185, 6-11=-31/462,
7-11=-394/156, 8-10=-114/1475

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=189, 9=168.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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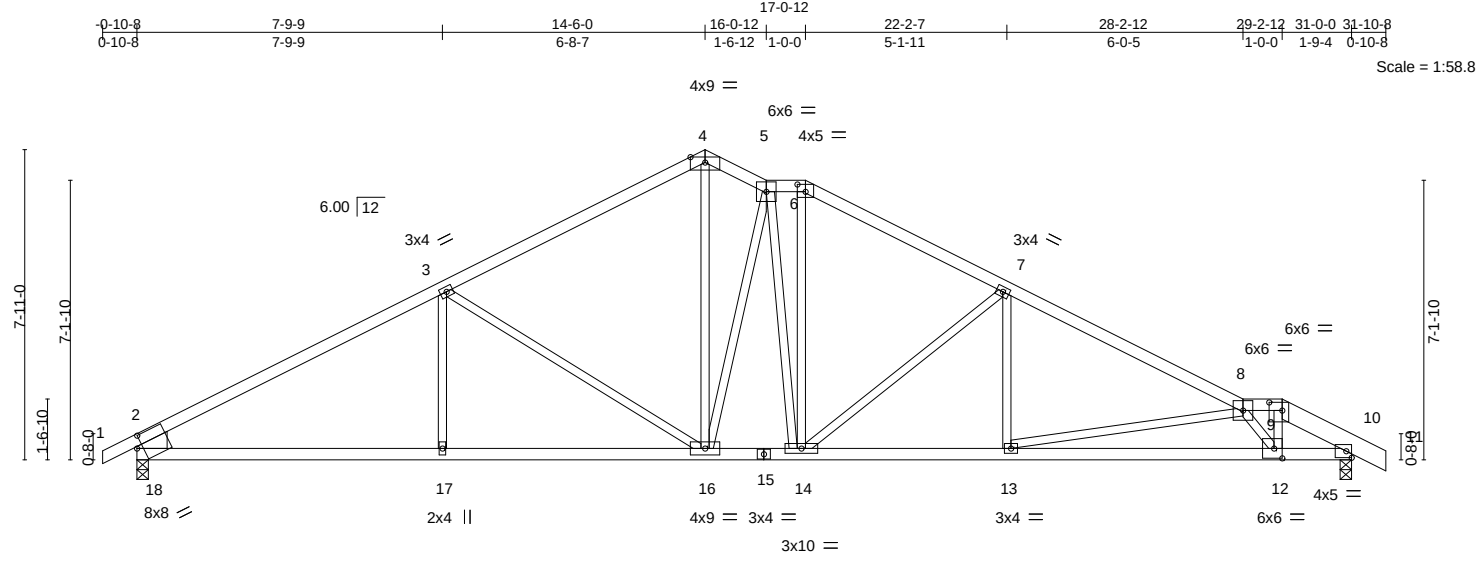
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382008
210401	D7	Roof Special Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:41 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-rGh0aEjVD?Fs3fmc_PuezS5Qc2gp3kTElfysQYzX3e4



	7-9-9		14-6-0		17-0-12		22-2-7		28-2-12		29-2-12 31-0-0	
	7-9-9		6-8-7		2-6-12		5-1-11		6-0-5		1-0-0 1-9-4	
Plate Offsets (X,Y)--	[6:0-2-8,0-2-4], [9:0-4-0,0-2-8], [12:0-2-8,0-3-0], [18:0-1-13,0-3-8]											
LOADING (psf)	SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL 25.0	Plate Grip DOL 1.15		TC 0.92		Vert(LL) -0.19 16-17 >999 360				MT20		197/144	
TCDL 10.0	Lumber DOL 1.15		BC 0.96		Vert(CT) -0.37 16-17 >997 240							
BCLL 0.0 *	Rep Stress Incr NO		WB 0.89		Horz(CT) 0.10 10 n/a n/a							
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.11 16-17 >999 240				Weight: 128 lb		FT = 10%	

LUMBER-
 TOP CHORD 2x4 SPF No.2 *Except*
 1-4: 2x4 SPF 2400F 2.0E, 9-11: 2x6 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-18: 2x10 SP DSS

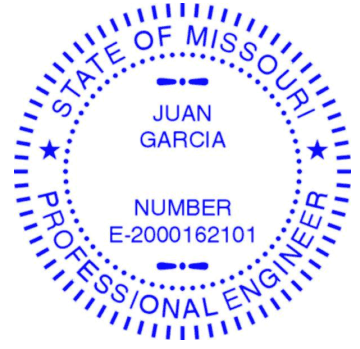
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-10-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-4 max.): 5-6, 8-9.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 18=0-3-8, 10=0-3-8
 Max Horz 18=-131(LC 9)
 Max Uplift 18=-193(LC 8), 10=-211(LC 9)
 Max Grav 18=1460(LC 1), 10=1440(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2199/258, 3-4=-1660/258, 4-5=-1502/254, 5-6=-1518/273, 6-7=-1785/269, 7-8=-2380/309, 8-9=-1821/221, 9-10=-2183/237, 2-18=-1351/236
 BOT CHORD 17-18=-249/1827, 16-17=-249/1827, 14-16=-63/1507, 13-14=-149/2058, 12-13=-326/2614, 10-12=-155/1718
 WEBS 3-17=0/268, 3-16=-572/223, 4-16=-142/919, 5-16=-582/183, 6-14=-35/404, 7-14=-705/208, 7-13=0/350, 8-13=-568/181, 8-12=-1364/282, 9-12=-140/1185

- 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 18=193, 10=211.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 53 lb down and 56 lb up at 29-2-12 on top chord, and 4 lb down and 3 lb up at 29-2-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



March 26, 2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382008
210401	D7	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:42 2021 Page 2
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-JSF0oZj7zINjhpLoY7PtVfdbMS02oBjOXJiPy_zX3e3

LOAD CASE(S) Standard

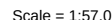
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-6=-70, 6-8=-70, 8-9=-70, 9-11=-70, 10-18=-20
- Concentrated Loads (lb)
 - Vert: 12=2(F)



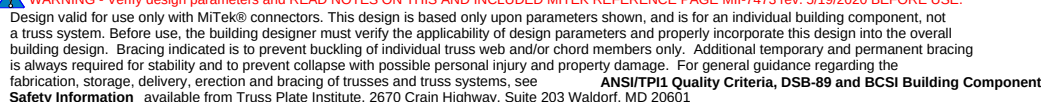
8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:43 2021 Page 1

Job Reference (optional)

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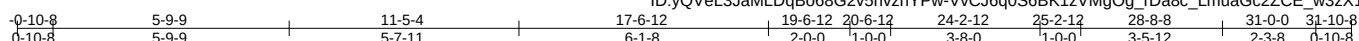


March 26, 2021

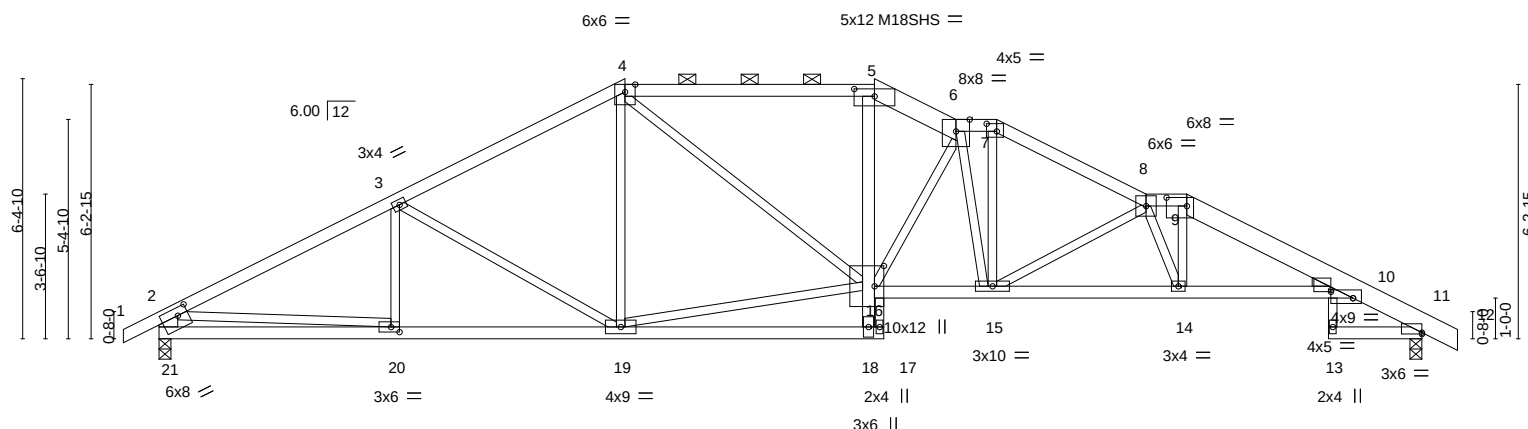


Wheeler Lumber, Waverly, KS 66871

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Mar 26 14:43:11 2021 Page 1
ID:vQvEL 31aMI DgBo68G2v5nvzvYPw-VvC 16a0S6BK1zVMgQg rDa8c lmuiaGc2ZCE w3zY1lK



Scale = 1:56.6



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	0.75	Vert(LL)	-0.23	15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.41	15	>889	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.29	11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.15	15	>999	240	Weight: 141 lb	FT = 10%

LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	5-6: 2x6 SPF No.2, 9-12: 2x6 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except*
	10-16: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except*
	2-21: 2x6 SPF No.2

WEDGE
Right: 2x3 SPF No.2

REACTIONS. (lb/size) 21=1458/0-3-8, 11=1462/0-3-8
Max Horz 21=-103(LC 9)
Max Uplift 21=-163(LC 8), 11=-177(LC 9)

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

TOP CHORD 2-3=-2302/220, 3-4=-1936/184, 4-5=-2092/226, 5-6=-2271/225, 6-7=-2333/257,
7-8=-2620/254, 8-9=-3029/319, 9-10=-3221/302, 10-11=-806/119, 2-21=-1393/194
BOT CHORD 20-21=-191/570, 19-20=-213/1975, 16-18=0/422, 5-16=-12/491, 15-16=-35/2367,
14-15=-201/3175, 10-14=-181/2989
WEBS 3-19=-396/177, 16-19=-89/1454, 4-16=-80/649, 6-16=-598/135, 6-15=-251/67,
7-15=-10/771, 8-15=-1006/184, 8-14=-437/67, 9-14=-1/530, 2-20=-22/1410,
16-17=-270/0

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 163 lb uplift at joint 21 and 177 lb uplift at joint 11.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26.2021



WARNING – Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1475 (Rev. 3/25/2020) BEFORE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	
210401	D10	Roof Special	1	1		I45382011

Wheeler Lumber, Waverly, KS 66871

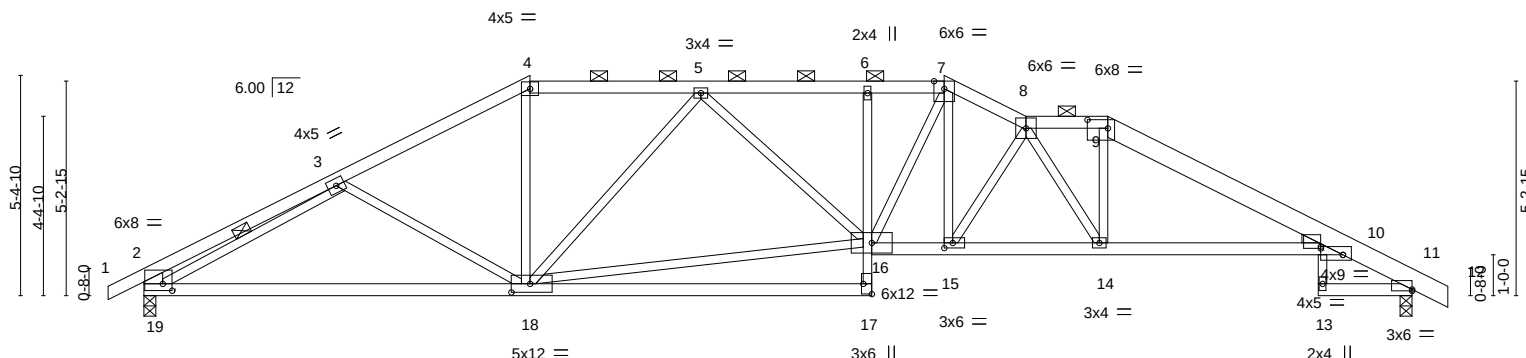
8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Mar 26 14:43:17 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-K3ZaNu4Dh14AhQqqkw4FSrOd3mnE_uwx8h18jzX1Ue

Job Reference (optional)

0-10-8 4-9-12 9-5-4 13-7-6 17-9-8 19-6-12 21-6-12 23-6-12 28-8-8 31-0-0 31-10-8
0-10-8 4-9-12 4-7-9 4-2-2 4-2-2 1-9-4 2-0-0 2-0-0 5-1-12 2-3-8 0-10-8

Scale = 1:56.3



	9-5-4	17-9-8	19-6-12	21-6-12	23-6-12	28-8-8	31-0-0
	9-5-4	8-4-4	1-9-4	2-0-0	2-0-0	5-1-12	2-3-8

Plate Offsets (X,Y)-- [2:0-2-12,0-2-0], [9:0-6-0,0-2-8], [10:0-6-8,0-2-6], [10:0-6-8,0-1-14], [11:0-0-0,0-0-7], [15:0-2-8,0-1-8], [17:Edge,0-2-8], [18:0-5-8,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.27	10-14	>999	360	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.51	10-14	>722	240	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.37	11	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.18	10-14	>999	240	
								Weight: 136 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
9-12: 2x6 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
6-17: 2x3 SPF No.2, 10-16: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-19: 2x6 SPF No.2

WEDGE
Right: 2x3 SPF No.2

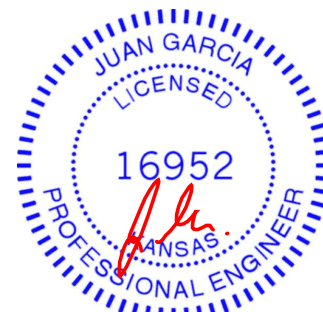
REACTIONS. (lb/size) 11=1461/0-3-8, 19=1456/0-3-8
Max Horz 19=-86(LC 13)
Max Uplift 11=-159(LC 9), 19=-143(LC 8)

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

TOP CHORD 2-3=-715/81, 3-4=-2083/194, 4-5=-1804/191, 5-6=-2582/258, 6-7=-2594/260,
7-8=-2721/237, 8-9=-2649/250, 9-10=-2894/219, 10-11=-805/109, 2-19=-543/117
BOT CHORD 18-19=-208/1926, 6-16=-285/100, 15-16=-150/2443, 14-15=-160/2872, 10-14=-96/2625
WEBS 4-18=0/600, 5-18=-843/181, 16-18=-226/2094, 5-16=-33/429, 7-16=-104/453,
7-15=-83/742, 8-15=-783/143, 8-14=-476/120, 9-14=-32/547, 3-19=-1590/168

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 11 and 143 lb uplift at joint 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382012
210401	D11	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

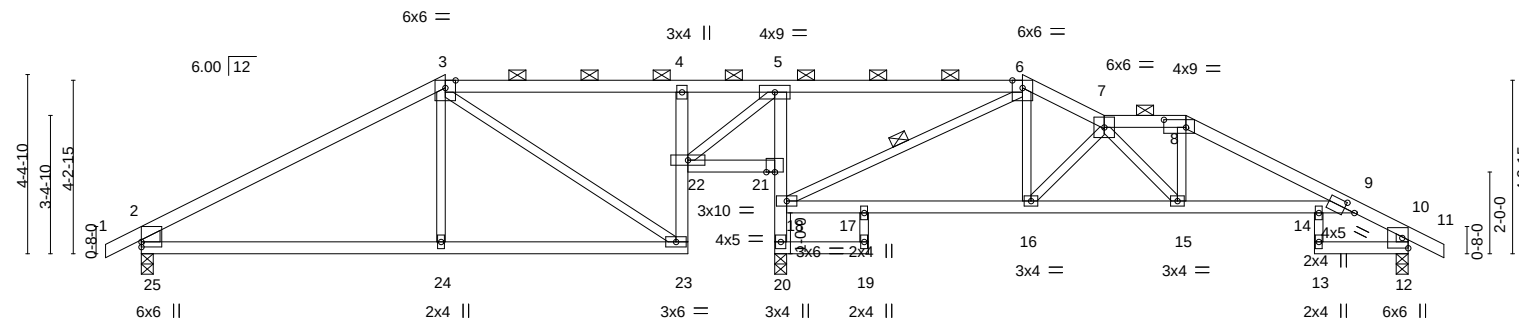
8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:31 2021 Page 1

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Job Reference (optional)

0-10-8 7-5-4 13-4-8 15-6-0 17-9-8 21-6-12 23-6-12 25-6-12 28-8-8 31-0-0 31-10-8
0-10-8 7-5-4 5-11-4 2-1-8 2-3-8 3-9-4 2-0-0 2-0-0 3-1-12 2-3-8 0-10-8

Scale = 1:56.4



	7-5-4	13-4-8	15-6-0	15-7-12	17-9-8	21-6-12	23-6-12	25-6-12	28-8-8	31-0-0
	7-5-4	5-11-4	2-1-8	0-1-12	2-1-12	3-9-4	2-0-0	2-0-0	3-1-12	2-3-8

Plate Offsets (X,Y)-- [8:0-6-8,0-2-4], [9:0-3-3,0-1-13]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.13 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.24 14-15	>745	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.69	Horz(CT)	0.15 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.11 14-15	>999	240	Weight: 113 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
8-11: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-25: 2x6 SPF No.2, 10-12: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-4-14 oc purlins, except end verticals, and 2-0-0 oc purlins (5-9-2 max.): 3-6, 7-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 21-22
4-8-8 oc bracing: 18-20
4-2-4 oc bracing: 18-21.
10-0-0 oc bracing: 14-15
WEBS 1 Row at midpt 6-18

REACTIONS.

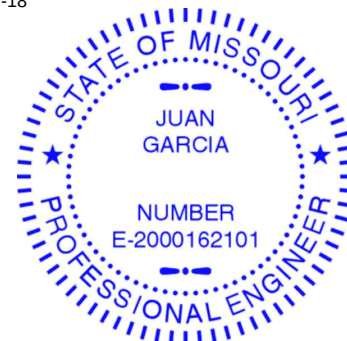
(size) 25=0-3-8, 20=0-3-8, 12=0-3-8
Max Horz 25=-70(LC 6)
Max Uplift 25=-119(LC 8), 20=-200(LC 5), 12=-147(LC 9)
Max Grav 25=683(LC 21), 20=1574(LC 1), 12=662(LC 22)

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

TOP CHORD 2-3=-742/106, 5-6=-21/437, 6-7=-635/190, 7-8=-971/249, 8-9=-1090/237, 9-10=-270/81,
2-25=-625/171, 10-12=-690/171
BOT CHORD 24-25=-48/558, 23-24=-50/554, 22-23=-3/371, 4-22=-291/129, 21-22=-643/102,
18-20=-1562/218, 18-21=-1031/215, 5-21=-916/218, 17-18=-30/555, 16-17=-30/555,
15-16=-131/907, 14-15=-129/965, 9-14=-129/965
WEBS 3-24=0/292, 3-23=-565/63, 5-22=-129/893, 6-18=-1094/54, 6-16=-38/468,
7-16=-499/147

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 25=119, 20=200, 12=147.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26, 2021

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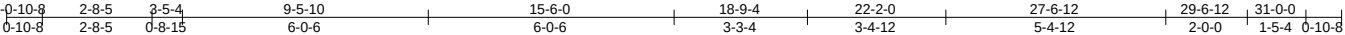


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382014
210401	D13	ROOF SPECIAL GIRDER	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:35 2021 Page 1
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-06KlKAekd9VjLkJSe8nEjBrSKdfRg3yMwjVXDuzX3eA



Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382014
210401	D13	ROOF SPECIAL GIRDER	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:35 2021 Page 2
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-06KIKaekd9VjLkJSe8nEjBrSKdfRg3yMwjVXDuzX3eA

NOTES-

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 160 lb down and 165 lb up at 3-5-4, 81 lb down and 67 lb up at 5-6-0, 81 lb down and 67 lb up at 7-6-0, 81 lb down and 67 lb up at 9-6-0, 81 lb down and 67 lb up at 11-6-0, 81 lb down and 67 lb up at 13-6-0, and 88 lb down and 70 lb up at 15-5-4, and 17 lb down and 33 lb up at 29-6-12 on top chord, and 44 lb down at 3-5-4, 23 lb down at 5-6-0, 23 lb down at 7-6-0, 23 lb down at 9-6-0, 23 lb down at 11-6-0, 23 lb down at 13-6-0, and 24 lb down at 15-7-12, and 2 lb down and 1 lb up at 29-6-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-70, 3-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 9-11=-70, 2-17=-20, 15-17=-20, 10-14=-20
- Concentrated Loads (lb)
- Vert: 3=-39(B) 15=-20(B) 5=-38(B) 16=-16(B) 4=-31(B) 12=1(B) 18=-31(B) 19=-31(B) 20=-31(B) 21=-31(B) 22=-22(B) 23=-16(B) 24=-16(B) 25=-16(B) 26=-16(B)

 **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



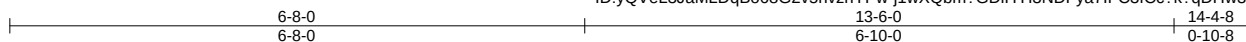
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss E1	Truss Type Common	Qty 1	Ply 1	Lot 129 H4 Job Reference (optional)	I45382015
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:45 2021 Page 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-j1wXQbm?GDIIYH3NDFya7IFC3fCc?k?qDhw3ZjzX3e0



4x9 =

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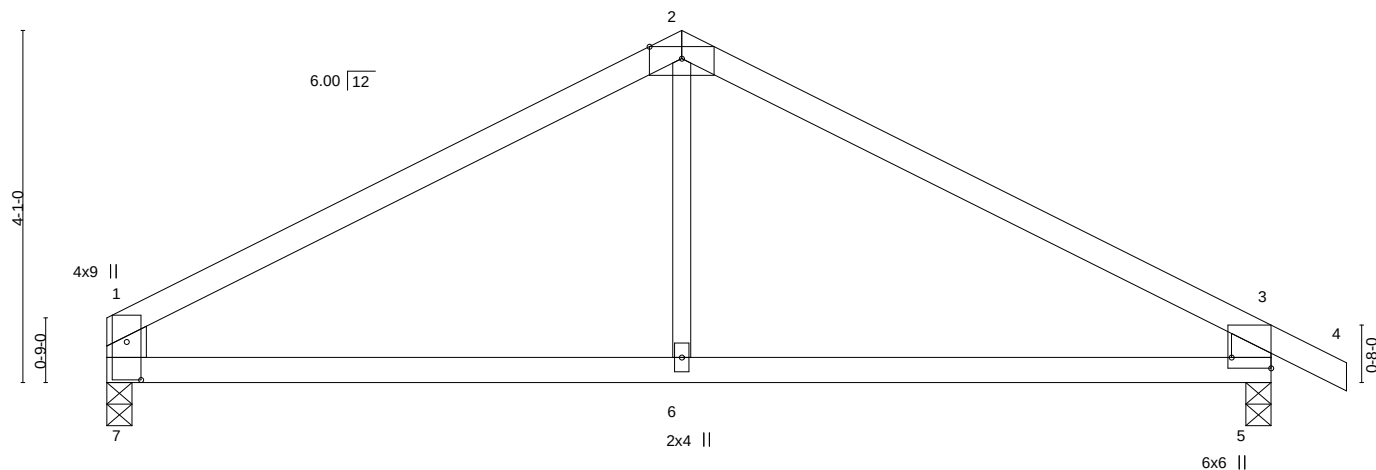


Plate Offsets (X, Y)--	[1:0-5-5,0-2-0], [5:Edge,0-5-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.05	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.10	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	5-6	>999	240	Weight: 38 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

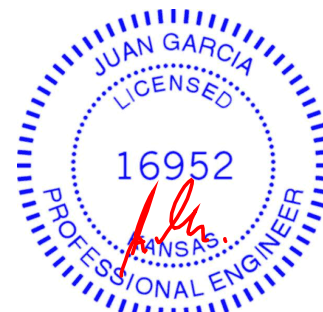
(size) 7=0-3-8, 5=0-3-8
Max Horz 7=-73(LC 4)
Max Uplift 7=-71(LC 8), 5=-98(LC 9)
Max Grav 7=584(LC 1), 5=667(LC 1)

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

TOP CHORD 1-2=-726/100, 2-3=-733/100, 1-7=-514/114, 3-5=-607/146
BOT CHORD 6-7=-18/554, 5-6=-18/554
WEBS 2-6=0/274

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) 7, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382016
210401	E2	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID: yQVeL3JaMLDqBo68G2v5nvznYPw-BDUvexmd1Xu99QeanyUpfVoNR3ZnkBr_Sxgc5lzX3e?

Job Reference (optional)

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

Scale = 1:25.5

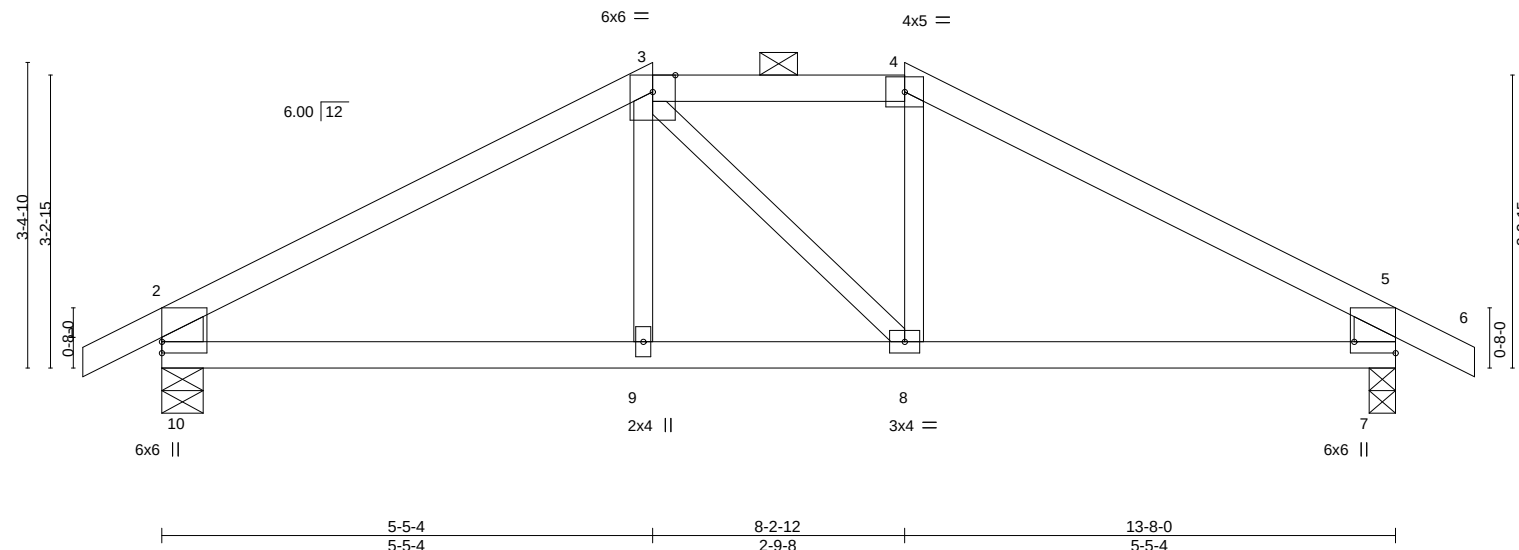


Plate Offsets (X, Y)--		[7:Edge, 0-5-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.03	8-9	>999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.05	9-10	>999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01	7	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.01	8	>999	Weight: 44 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-5-8, 7=0-3-8
 Max Horz 10=-58(LC 6)
 Max Uplift 10=-89(LC 8), 7=-89(LC 9)
 Max Grav 10=672(LC 1), 7=672(LC 1)

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

TOP CHORD 2-3=-795/70, 3-4=-624/103, 4-5=-796/70, 2-10=-608/128, 5-7=-608/128
 BOT CHORD 9-10=-23/626, 8-9=-24/623, 7-8=0/626

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



March 26, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

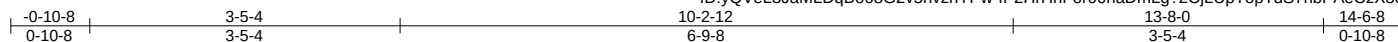
Job 210401	Truss E3	Truss Type Hip Girder	Qty 1	Ply 1	Lot 129 H4 I45382017
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:47 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-fP2HrHnFor00naDmLg?2CjLUpTopTdS7hbPAeCzX3e_

Job Reference (optional)



Scale = 1:25.5

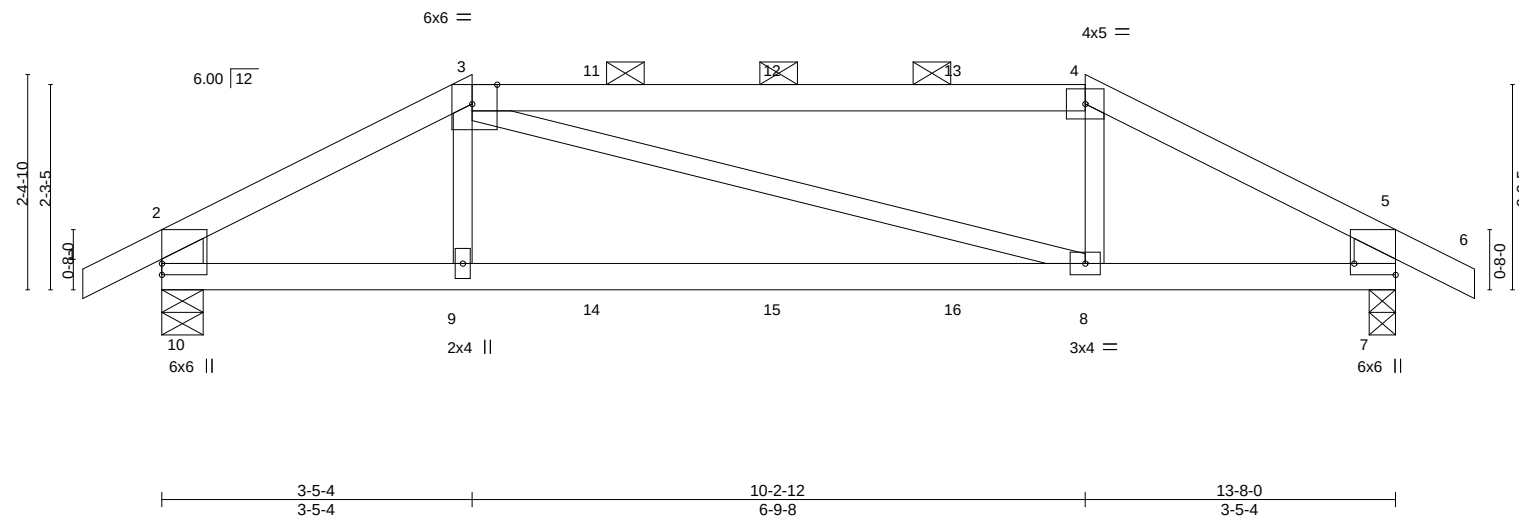


Plate Offsets (X,Y)-- [3:0-3-5,Edge], [7:Edge,0-5-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.11 8-9 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.25 8-9 >628 240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.02 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.09 8-9 >999 240	Weight: 45 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-10,5-7: 2x6 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-9 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 10=0-5-8, 7=0-3-8
Max Horz 10=-45(LC 6)
Max Uplift 10=-192(LC 8), 7=-192(LC 9)
Max Grav 10=843(LC 1), 7=843(LC 1)

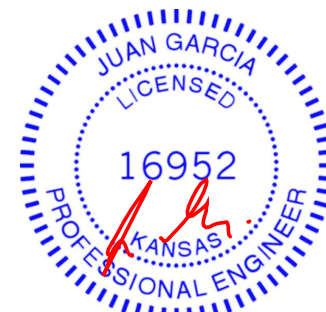
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-1227/264, 3-4=-1029/258, 4-5=-1229/264, 2-10=-760/178, 5-7=-761/178
BOT CHORD 9-10=-226/1033, 8-9=-233/1027, 7-8=-209/1035
WEBS 3-9=0/282, 4-8=0/282

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=192, 7=192.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 162 lb down and 138 lb up at 3-5-4, 78 lb down and 65 lb up at 4-10-0, 78 lb down and 65 lb up at 6-10-0, and 78 lb down and 65 lb up at 8-10-0, and 162 lb down and 138 lb up at 10-2-12 on top chord, and 55 lb down at 3-5-4, 23 lb down at 4-10-0, 23 lb down at 6-10-0, and 23 lb down at 8-10-0, and 55 lb down at 10-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



March 26, 2021

Continued on page 2

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4
210401	E3	Hip Girder	1	1	I45382017
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:47 2021 Page 2
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-fP2HrHnFor00naDmLg?2CjLUpTopTdS7hbPAeCzX3e_

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20
- Concentrated Loads (lb)
 - Vert: 3=-64(B) 4=-64(B) 9=-37(B) 8=-37(B) 11=-30(B) 12=-30(B) 13=-30(B) 14=-17(B) 15=-17(B) 16=-17(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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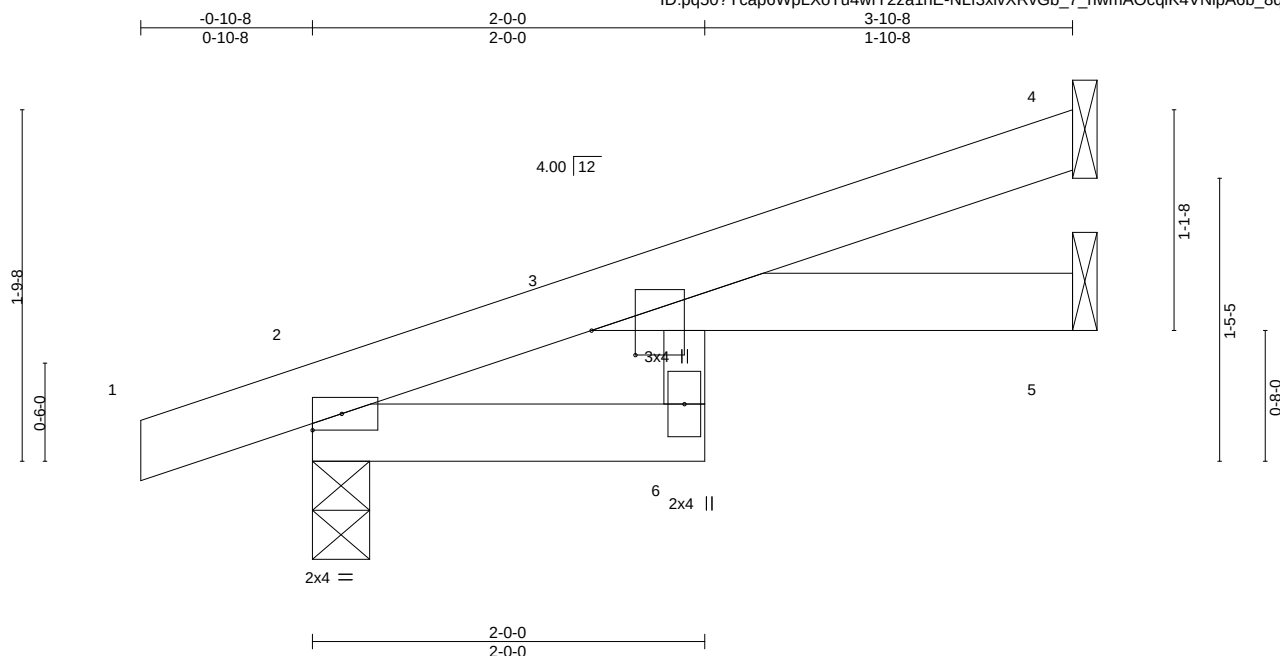


Plate Offsets (X,Y)-- [3:0-1-8,0-2-11]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.03	6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.05	6	>820	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P		Wind(LL)	0.03	6	>999	240	Weight: 11 lb	FT = 10%

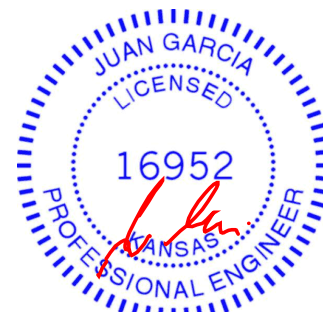
LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x3 SPF No.2		

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=65(LC 4)
 Max Uplift 4=52(LC 8), 2=65(LC 4)
 Max Grav 4=135(LC 1), 2=252(LC 1), 5=48(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

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

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED WITHIN REFERENCE TAFE MP-1419 (Rev. 3/29/2020) BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



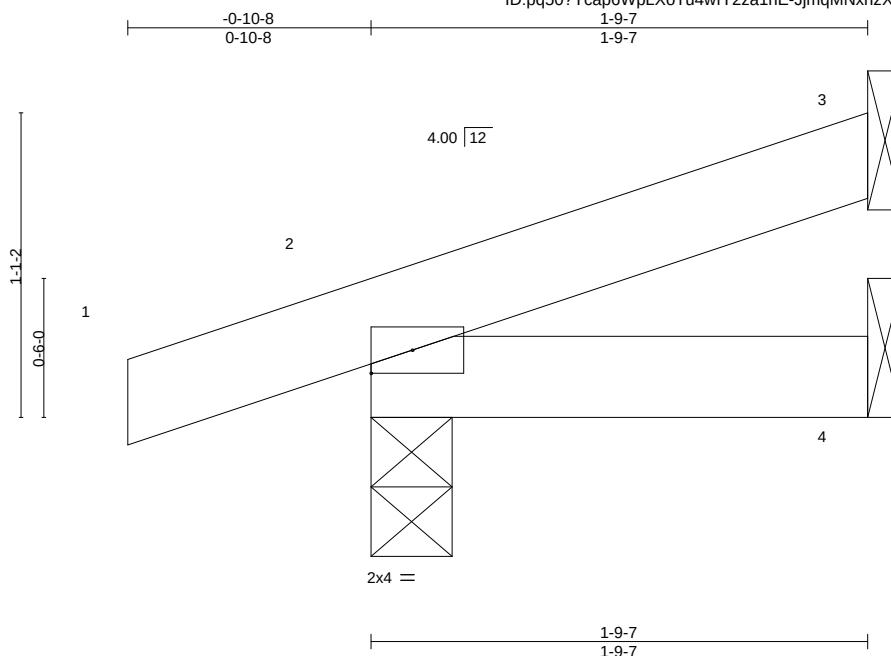
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382020
210401	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:pq50?Ycap6WpLXoTu4wfY2za1nE-JmqMNXzXWJDQ842BDshFrjil3eH4puRSJo2VzX3do



Scale = 1:8.3

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 0.05	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 5 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 1-9-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=37(LC 4)
Max Uplift 3=27(LC 8), 2=56(LC 4)
Max Grav 3=45(LC 1), 2=158(LC 1), 4=35(LC 3)

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

NOTES-

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



March 26, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382021
210401	J4	JACK-CLOSED SUPPORTE	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:59 2021 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-JmqMNXnzXWJDQ842BDshFrj5l3oH4puRSJo2VzX3do

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

Scale = 1:6.9

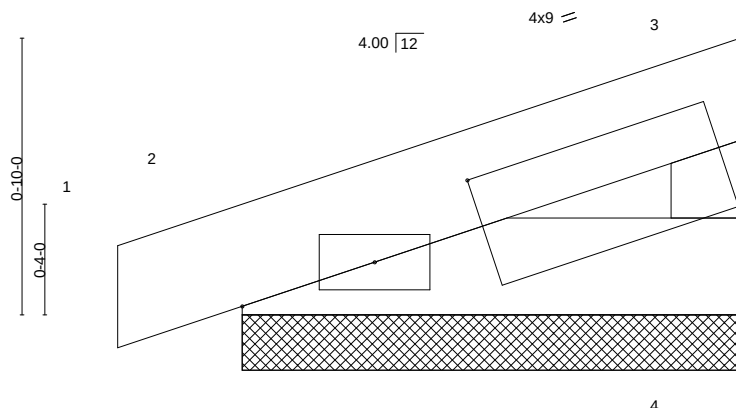


Plate Offsets (X,Y)--		[3:0-9-2,0-1-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.03
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 1 n/r 120
			Vert(CT) 0.00 1 n/r 120
			Horz(CT) -0.00 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 4 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=1-6-0, 2=1-6-0
Max Horz 2=24(LC 5)
Max Uplift 4=-12(LC 8), 2=-28(LC 4)
Max Grav 4=59(LC 1), 2=93(LC 1)

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

NOTES-

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



March 26, 2021

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

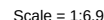
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:00 2021 Page 1
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LUMBER-

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

BRACING-

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8
 Max Horz 2=24(LC 5)
 Max Uplift 4=12(LC 8), 2=30(LC 4)
 Max Grav 4=57(LC 1), 2=94(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; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26.2021



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



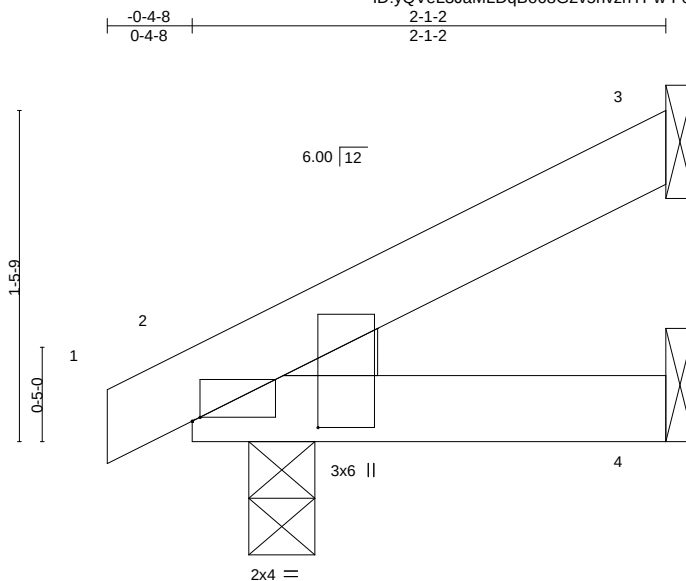
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J6	Truss Type Jack-Open	Qty 1	Ply 1	Lot 129 H4 I45382023
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:01 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-F6uan3y1V8m1TkIS9cFLmgw3D6k1l_JBvmov6OzX3dm



Scale = 1:10.2

Plate Offsets (X,Y)-- [2:0-0-7,Edge], [2:0-0-5,0-6-11]		0-3-0 0-3-0		2-1-2 1-10-2	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL. in (loc)	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL) -0.00	2 >999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT) -0.00	2-4 >999 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT) -0.00	3 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL) 0.00	2 **** 240
				PLATES	GRIP
				MT20	197/144
				Weight: 6 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 2-1-2 oc purlins.

BOT CHORD

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=49(LC 8)

Max Uplift 3=-39(LC 8), 2=-16(LC 8)

Max Grav 3=61(LC 1), 2=126(LC 1), 4=38(LC 3)

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

NOTES-

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



March 26, 2021

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

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



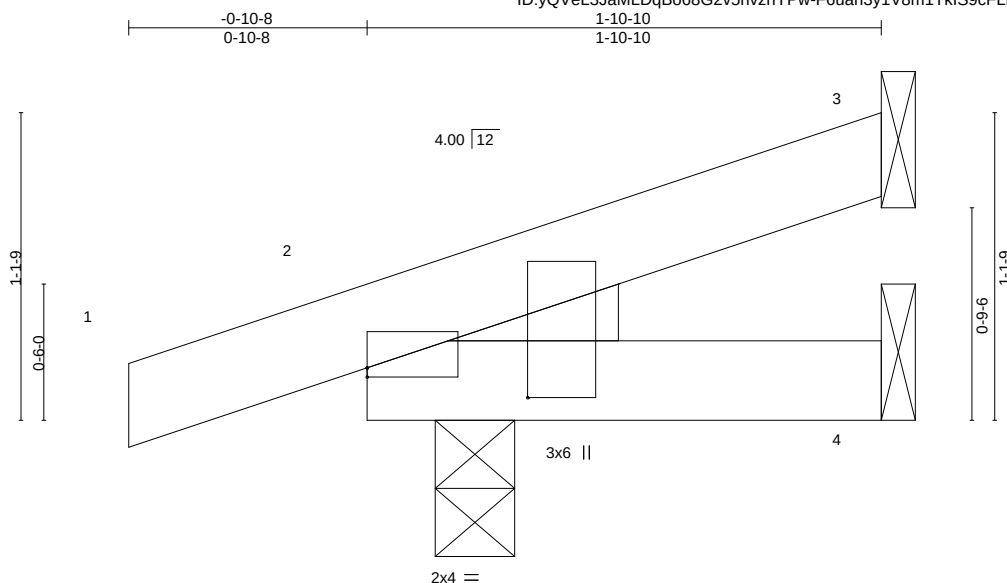
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382024
210401	J7	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:yQVeL3JaMLDqBo68G2v5nvznYPw-F6uan3y1V8m1TkIS9cFLmgw2v6k2l_JBvmov6OzX3dm



Scale = 1:8.5

Plate Offsets (X,Y)--	[2:0-0-0,0-0-6], [2:0-1-5,0-7-1]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 6 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x3 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-10-10 oc purlins.

BOT CHORD

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=39(LC 4)

Max Uplift 3=-29(LC 8), 2=-56(LC 4)

Max Grav 3=49(LC 1), 2=162(LC 1), 4=37(LC 3)

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

NOTES-

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



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J8	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Lot 129 H4 Job Reference (optional)	I45382025
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:02 2021 Page 1
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-jlSy?PzgGSvu4utejJmaJtS8BW?IUNIK7QYTFqzX3dl

-0-11-1
0-11-1

5-11-2
5-11-2

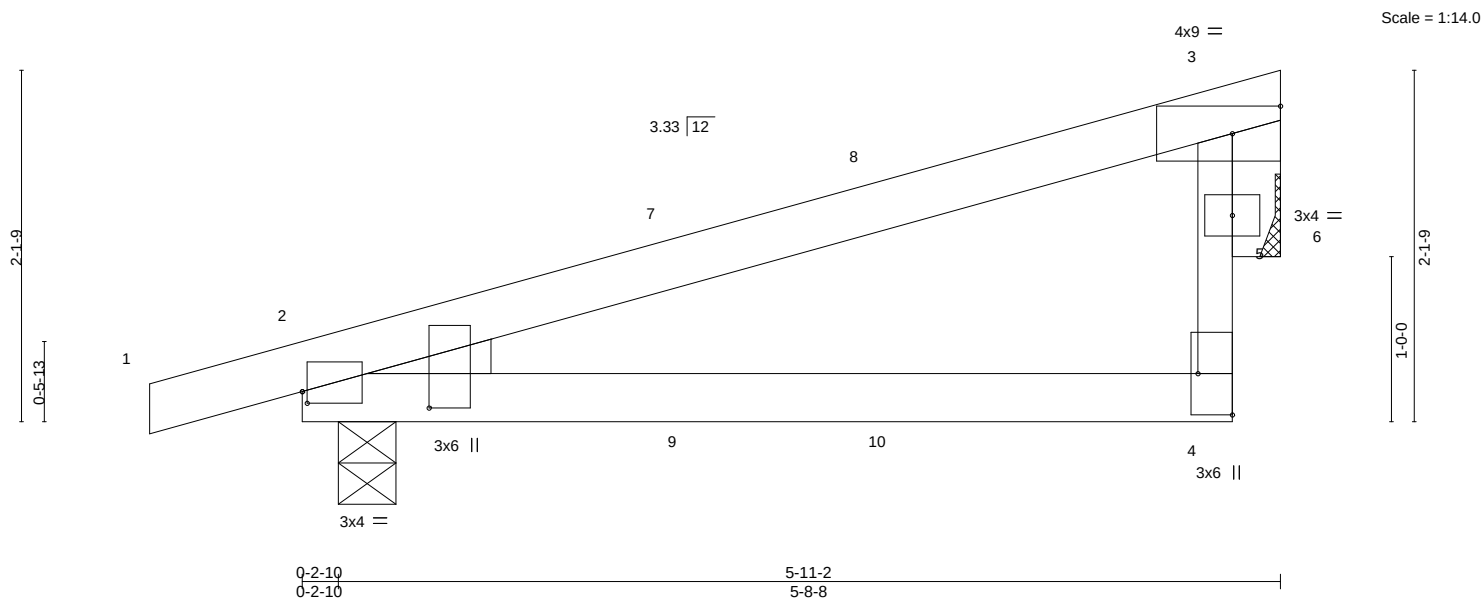


Plate Offsets (X,Y)-- [2:0-1-3,0-9-3], [2:0-0-6,0-0-14], [4:Edge,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.02	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.05	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	2-4	>999	240	Weight: 17 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2
OTHERS 2x4 SPF No.2
WEDGE
Left: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-4-3, 6=Mechanical
Max Horz 2=62(LC 5)
Max Uplift 2=90(LC 4), 6=50(LC 8)
Max Grav 2=339(LC 1), 6=219(LC 1)

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

TOP CHORD 2-3=-253/29, 3-5=-277/153

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 83 lb down and 35 lb up at 2-4-9, and 64 lb down and 45 lb up at 3-7-3 on top chord, and at 2-4-9, and 4 lb down at 3-7-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



March 26, 2021

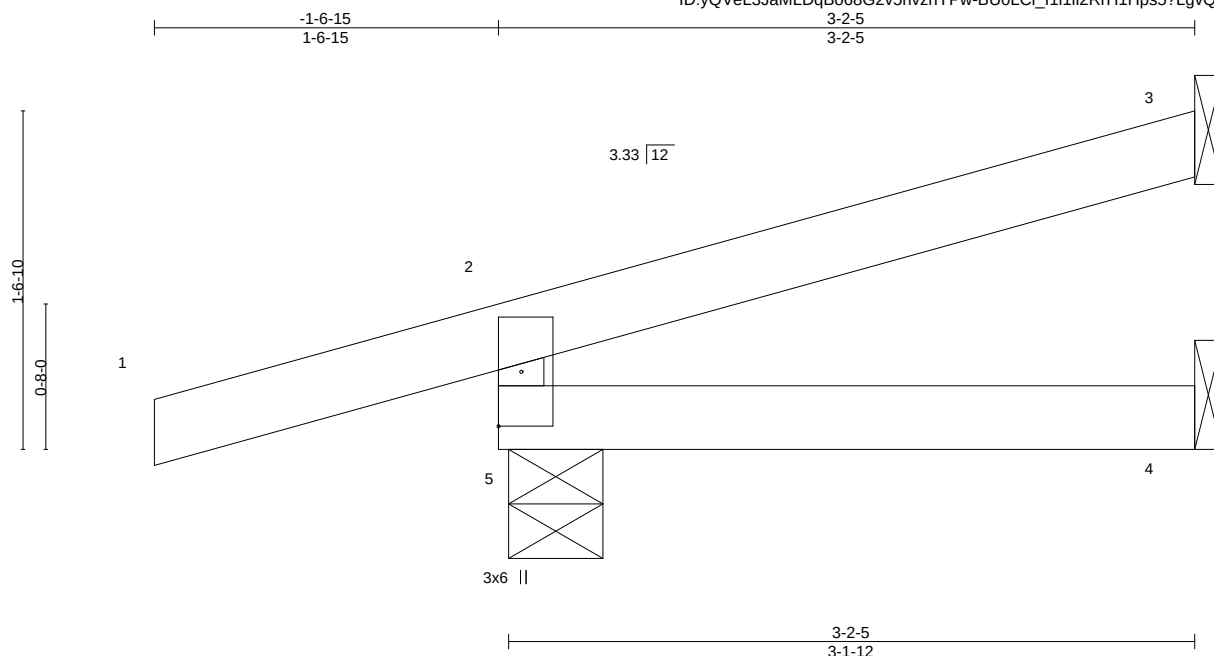
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:03 2021 Page 1
ID:vOVeL3JaMLDgBo68G2v5nyznYPw-BU0LCI |11|1|2RrH1Hps5?LqvO1DuoUM4H0BGzX3d



LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	-0.00	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER:
TOP CHO
BOT CHO
WEBS

REACTION

FORCES.

NOTES-
1) Wind: A
MWFR:
grip DC
2) This tru
3) * This t
will fit b
4) Refer to
5) Provide

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

BRACING-
TOP CHOR
BOT CHOR

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

REACTIONS.

(size) 5=0-5-3, 3=Mechanical, 4=Mechanical
Max Horz 5=56(LC 12)
Max Uplift 5=-82(LC 6), 3=-52(LC 12), 4=-3(LC 19)
Max Grav 5=167(LC 1), 3=30(LC 1), 4=40(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 36 lb down and 13 lb up at -1-6-15, and 36 lb down and 13 lb up at -1-6-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-56(F=-28, B=-28)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-42(F=14, B=14), 2=-2(F=34, B=34)-to-3=-56(F=7, B=7), 5=-0(F=10, B=10)-to-4=-16(F=2, B=2)



March 26, 2021



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.
Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



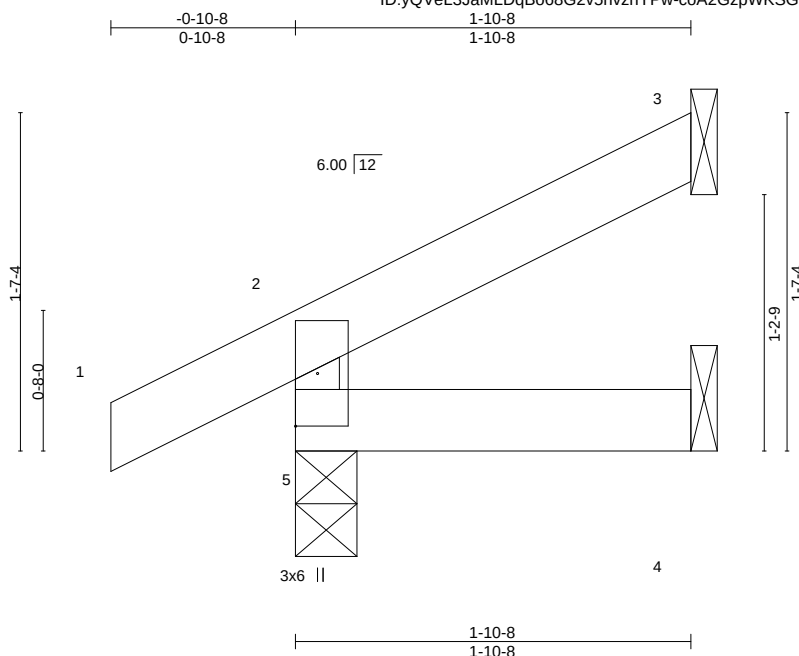
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J10	Truss Type Jack-Open	Qty 1	Ply 1	Lot 129 H4 I45382027
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:49 2021 Page 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-coA2GzpWKSgk0uN9S51WH8Q_0GeMxYlQ8vuHh4zX3dy



Scale = 1:10.9

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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=47(LC 8)
Max Uplift 5=25(LC 8), 3=31(LC 8)
Max Grav 5=167(LC 1), 3=45(LC 1), 4=33(LC 3)

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

NOTES-

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



March 26, 2021

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

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

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

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



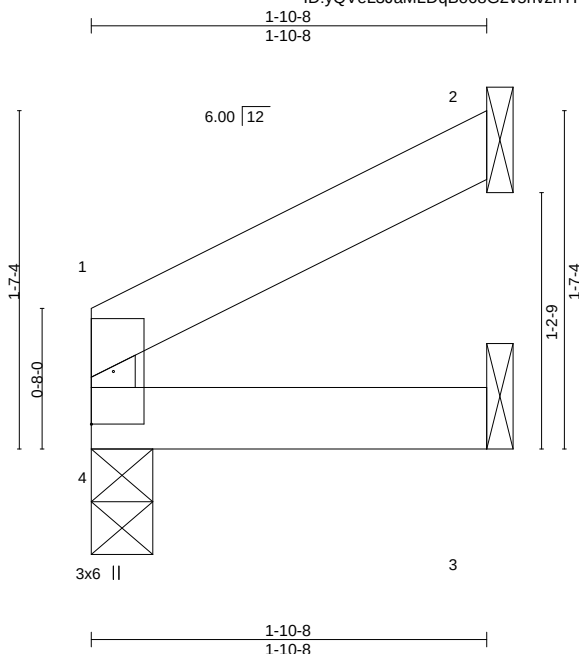
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J10A	Truss Type Jack-Open	Qty 1	Ply 1	Lot 129 H4 I45382028
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:50 2021 Page 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-4_kQTJq85mObe2yL0oYlqLzA4g_Zg?aZNZeQDXzX3dx



Scale = 1:10.9

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

LUMBER-

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

BRACING-

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

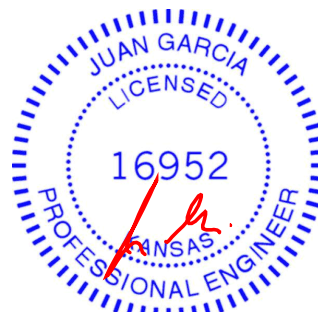
REACTIONS.

(size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=31(LC 5)
Max Uplift 2=35(LC 8)
Max Grav 4=79(LC 1), 2=58(LC 1), 3=34(LC 3)

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

NOTES-

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



March 26, 2021

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

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

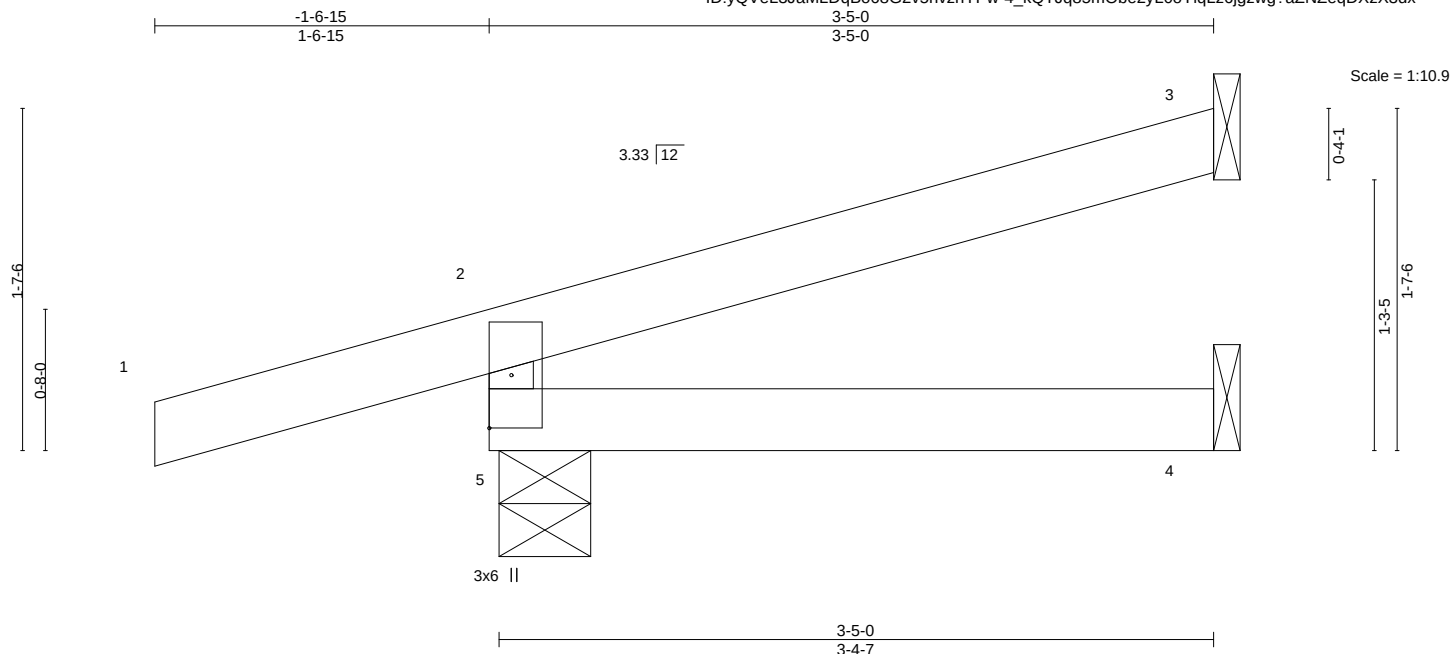


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J11	Truss Type Jack-Open Girder	Qty 2	Ply 1	Lot 129 H4	I45382029
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:50 2021 Page 1
ID:yQVeL3JaMLDqBo68G2v5nvznYPw-4_kQTJq85mObe2yL0oYlqLz6jgzwg?aNZNeqDXzX3dx



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.01	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	
								Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-5-3, 3=Mechanical, 4=Mechanical
Max Horz 5=58(LC 12)
Max Uplift 5=-83(LC 4), 3=-53(LC 12), 4=-2(LC 19)
Max Grav 5=176(LC 1), 3=38(LC 1), 4=45(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 39 lb down and 14 lb up at -1-6-15, and 39 lb down and 14 lb up at -1-6-15 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-60(F=-30, B=-30)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-42(F=14, B=14), 2=-2(F=34, B=34)-to-3=-60(F=5, B=5), 5=-0(F=10, B=10)-to-4=-17(F=1, B=1)



March 26, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J12	Truss Type Jack-Open	Qty 2	Ply 1	Lot 129 H4 I45382030
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Wheeler Lumber, Waverly, KS - 66871,

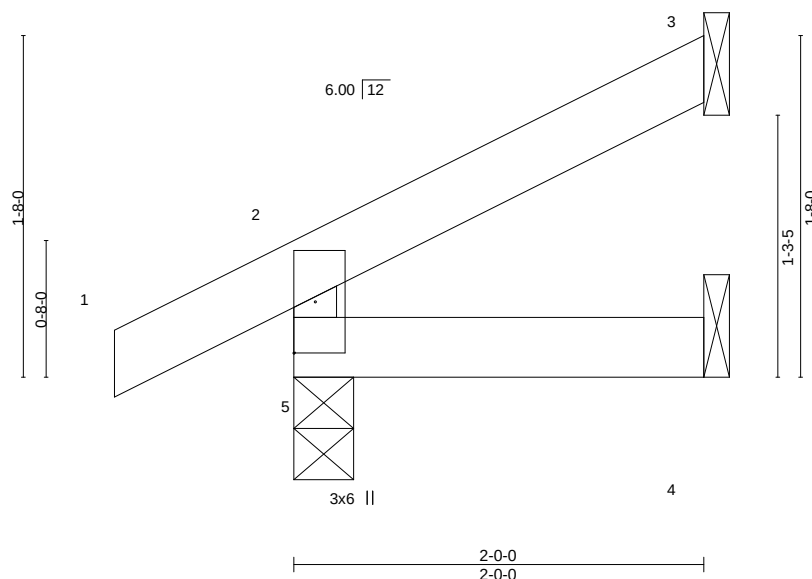
8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:51 2021 Page 1

ID: yQV eL3JaMLDqBo68G2v5nvznYPw-YBHoheqms3WSGCXXaW3_MZVKW4KmPSqjcDNNmzzX3dw

-0-10-8
0-10-8

2-0-0
2-0-0

Scale = 1:11.2



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

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=50(LC 8)
Max Uplift 5=-25(LC 8), 3=-33(LC 8)
Max Grav 5=171(LC 1), 3=50(LC 1), 4=35(LC 3)

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

NOTES-

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



March 26, 2021

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

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

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



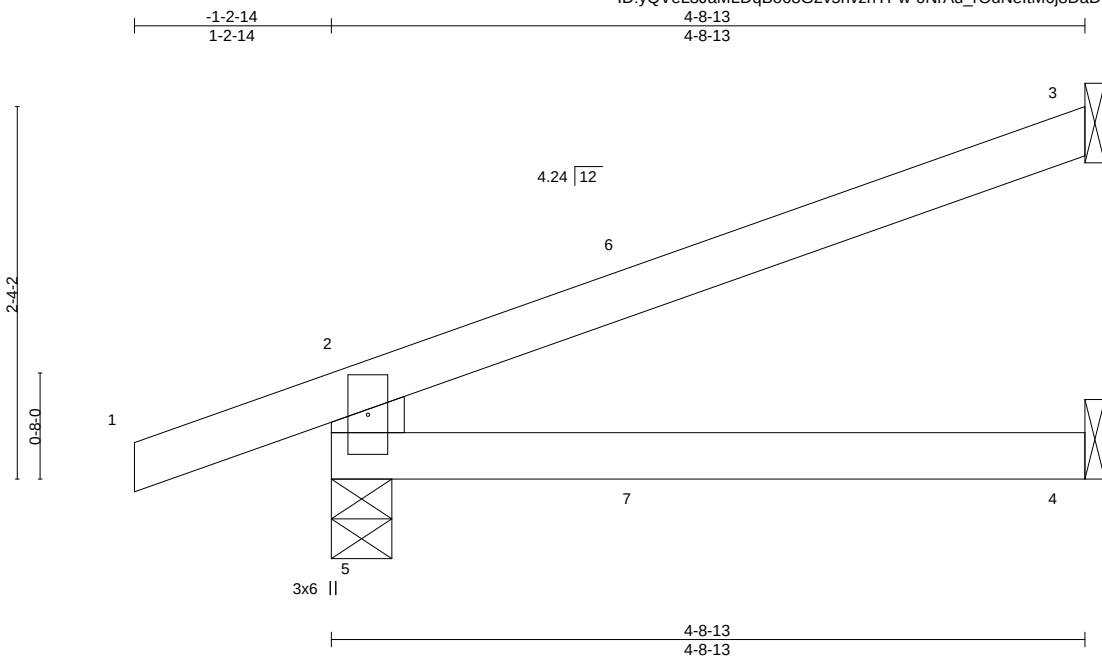
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J13	Truss Type Jack-Open Girder	Qty 4	Ply 1	Lot 129 H4 Job Reference (optional)	I45382031
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:52 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-0NrAu_rOdNeltM6j8DaDvm2SRUeT8v4sq7xlPzX3dv



Scale = 1:14.5

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 0.31	Vert(LL)	-0.02	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.04	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240	
									Weight: 13 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=85(LC 4)
Max Uplift 5=-91(LC 4), 3=-63(LC 8)
Max Grav 5=317(LC 1), 3=133(LC 1), 4=82(LC 3)

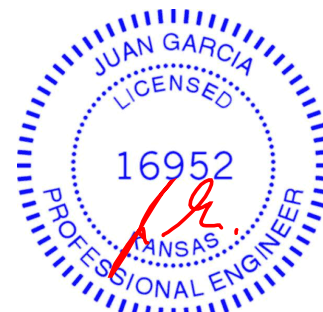
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-281/129

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 66 lb down and 22 lb up at 1-11-15, and 66 lb down and 22 lb up at 1-11-15 on top chord, and 2 lb down and 2 lb up at 1-11-15, and 2 lb down and 2 lb up at 1-11-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



March 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J14	Truss Type Jack-Open	Qty 17	Ply 1	Lot 129 H4 I45382032
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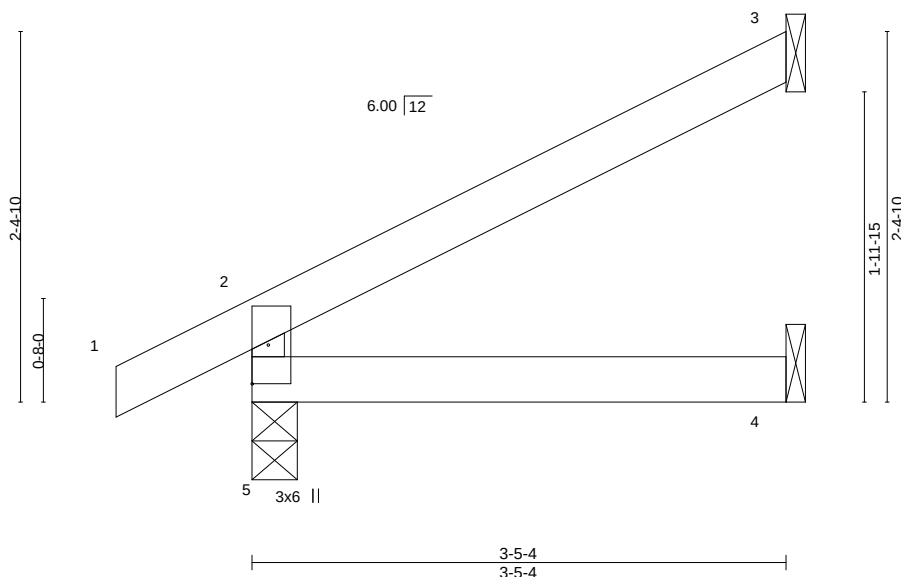
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:53 2021 Page 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-UZPZ6Ks0Ohm9Vvhw6SS_bfit?BtMK03XsUqrzX3du

0-10-8 3-5-4
0-10-8 3-5-4

Scale = 1:14.8



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 0.15	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=78(LC 8)
Max Uplift 5=28(LC 8), 3=58(LC 8)
Max Grav 5=226(LC 1), 3=100(LC 1), 4=62(LC 3)

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

NOTES-

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



March 26, 2021

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

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

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

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



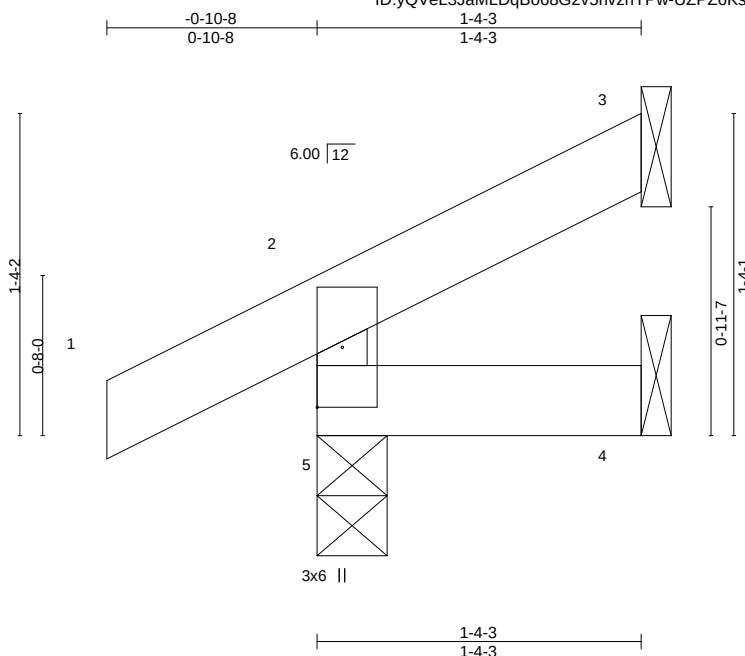
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J15	Truss Type Jack-Open	Qty 8	Ply 1	Lot 129 H4 I45382033
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:53 2021 Page 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-UZPZ6Ks0Ohm9Vvhwhw6SS_bg?t0UtMK03XsUqrzX3du



Scale = 1:9.6

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

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=36(LC 8)
Max Uplift 5=26(LC 8), 3=19(LC 8)
Max Grav 5=151(LC 1), 3=21(LC 1), 4=22(LC 3)

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

NOTES-

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



March 26, 2021

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

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

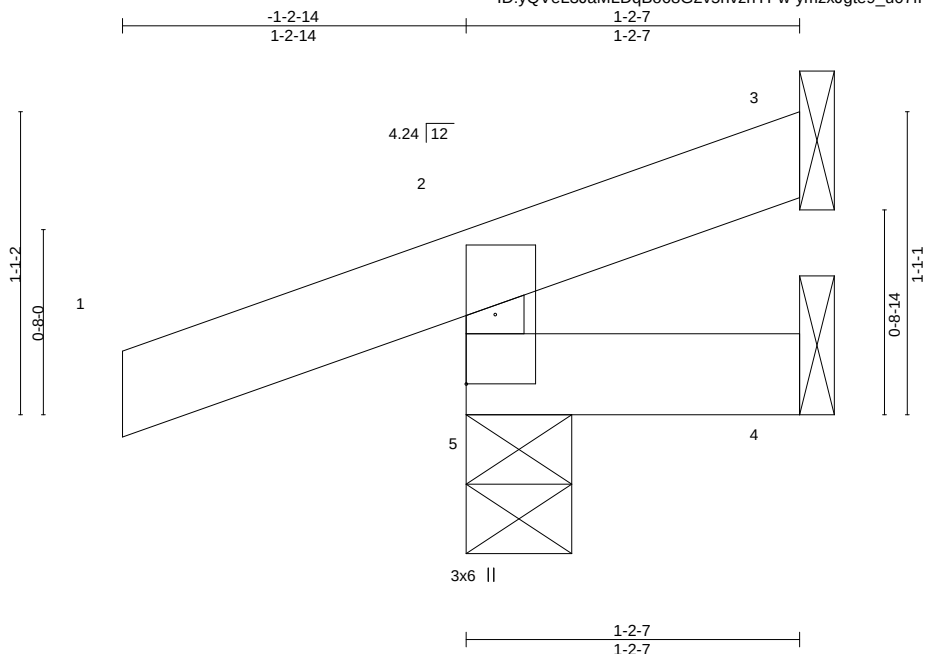


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382034
210401	J16	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:54 2021 Page 1
ID:yQVLeL3JaMLDqBo68G2v5nvznYPw-ymzxJgte9_u07fF6Fedh_B7rWHLmcpa9IBc2NizX3dt



Scale = 1:8.3

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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-2-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=38(LC 7)
Max Uplift 5=-115(LC 6), 3=-13(LC 5)
Max Grav 5=69(LC 1), 3=18(LC 15), 4=16(LC 3)

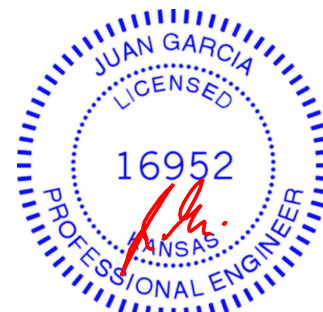
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

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

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-3(F=-1, B=-1)
Trapezoidal Loads (plf)
Vert: 1=-7(F=32, B=32)-to-2=-30(F=20, B=20), 2=-30(F=20, B=20)-to-3=-50(F=10, B=10), 5=-9(F=6, B=6)-to-4=-14(F=3, B=3)



March 26, 2021

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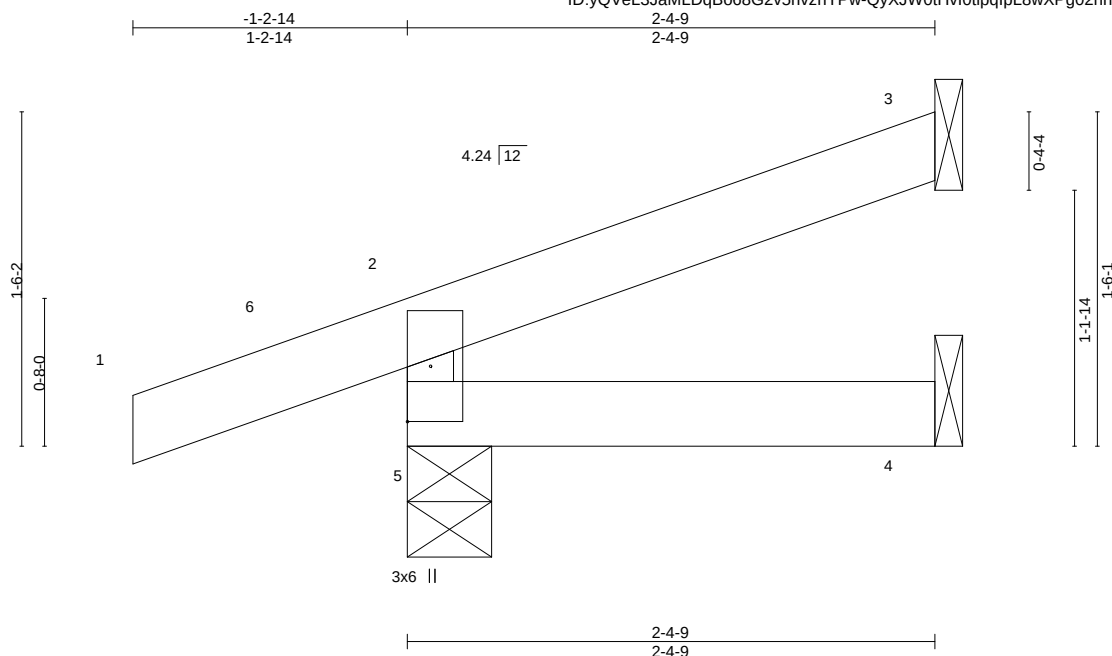
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss J17	Truss Type Jack-Open Girder	Qty 1	Ply 1	Lot 129 H4	I45382035
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:55 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-QyXJW0tHvI0tpqIpL8wXPg02hhgLGqIWqLbvKzX3ds



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	240		
									Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=57(LC 12)
Max Uplift 5=92(LC 6), 3=37(LC 12), 4=1(LC 19)
Max Grav 5=93(LC 1), 3=24(LC 1), 4=30(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 7 lb up at -1-2-14, and 18 lb down and 7 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Concentrated Loads (lb)

Vert: 1=-28(F=-14, B=-14)

Trapezoidal Loads (plf)

Vert: 1=0(F=35, B=35)-to-6=-23(F=24, B=24), 6=0(F=35, B=35)-to-2=-10(F=30, B=30), 2=-10(F=30, B=30)-to-3=-49(F=10, B=10), 5=-3(F=9, B=9)-to-4=-14(F=3, B=3)



March 26, 2021

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

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



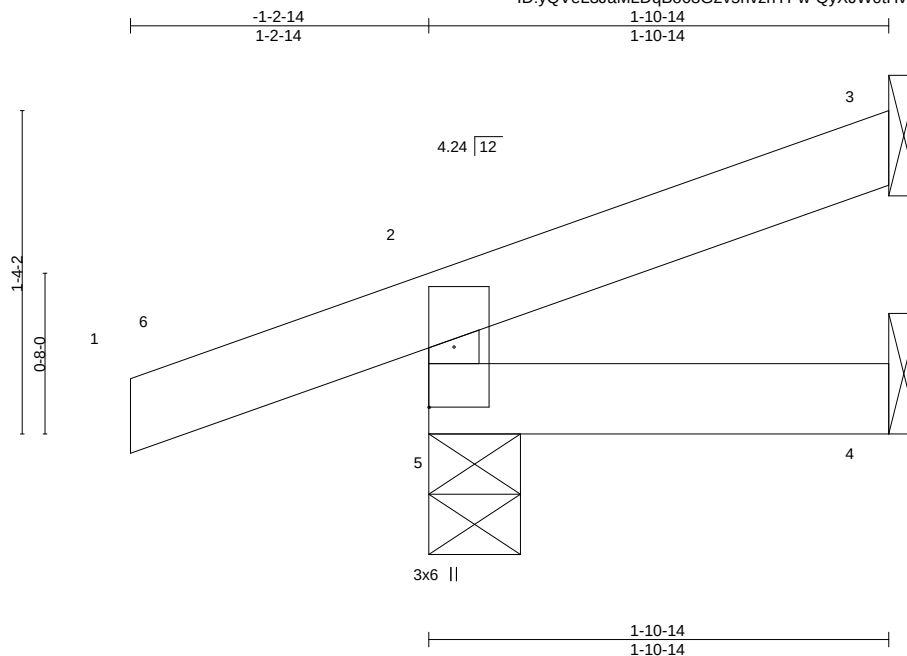
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382036
210401	J18	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:55 2021 Page 1

ID:yQVeL3JaMLDqBo68G2v5nvznYPw-QyXJW0tHvI0tpqlpL8wXPg0GhhpLGqIWqLbvKzX3ds



Scale = 1:9.6

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

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=49(LC 7)
Max Uplift 5=-108(LC 6), 3=-18(LC 12)
Max Grav 5=70(LC 1), 3=24(LC 1), 4=26(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=108.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 9 lb down and 3 lb up at -1-2-14, and 9 lb down and 3 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

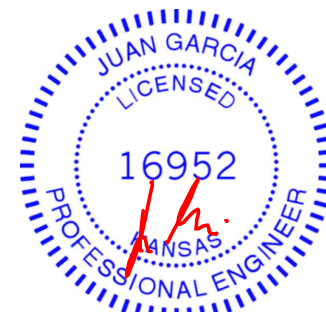
LOAD CASE(S) Standard

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

Vert: 1=-14(F=-7, B=-7)

Trapezoidal Loads (plf)

Vert: 1=0(F=35, B=35)-to-6=-10(F=30, B=30), 6=0(F=35, B=35)-to-2=-18(F=26, B=26), 2=-18(F=26, B=26)-to-3=-50(F=10, B=10), 5=-5(F=7, B=7)-to-4=-14(F=3, B=3)



March 26, 2021

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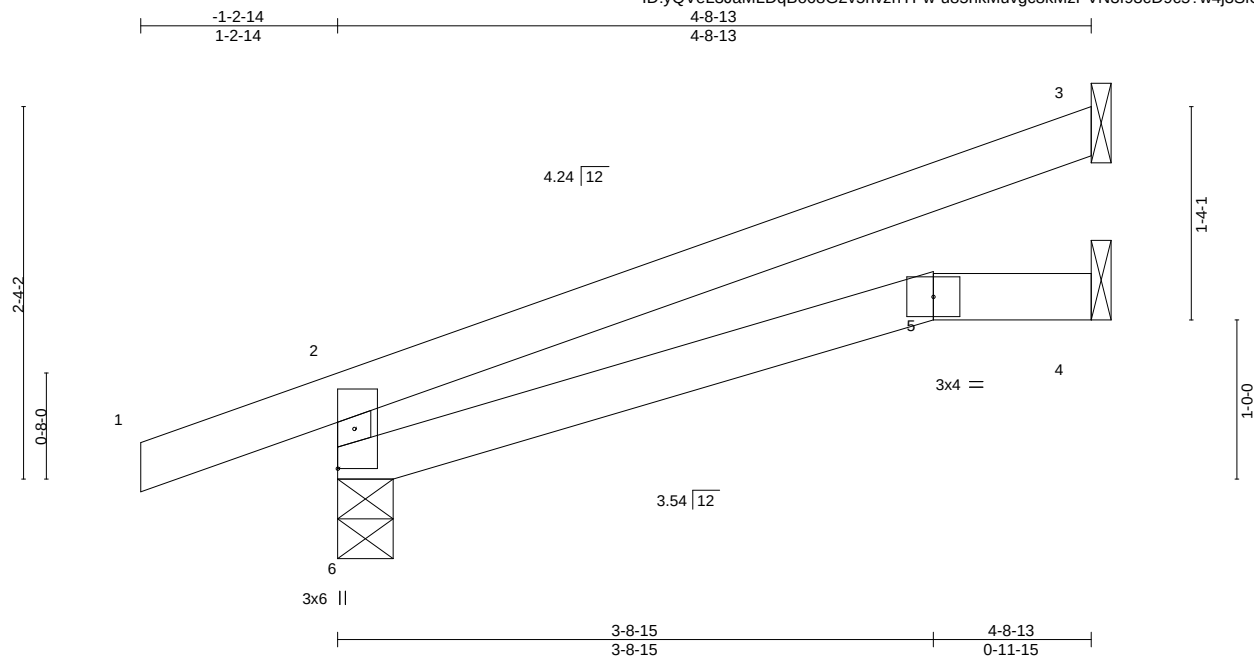
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382037
210401	J19	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:yQVeL3JaMLDqBo68G2v5nvznYPw-u85hkMuvgc8kMzPVN3f93cD9c5?w4j3SIU58RAzX3dr



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)	-0.02 5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.03 5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02 5-6	>999	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 6=0-4-3, 3=Mechanical, 4=Mechanical
Max Horz 6=84(LC 12)
Max Uplift 6=64(LC 4), 3=53(LC 12)
Max Grav 6=196(LC 1), 3=108(LC 1), 4=76(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 44 lb down and 16 lb up at -1-2-14, and 44 lb down and 16 lb up at -1-2-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Concentrated Loads (lb)
Vert: 1=-67(F=-34, B=34)
Trapezoidal Loads (plf)
Vert: 1=0(F=35, B=35)-to-2=-33(F=18, B=18), 2=-2(F=34, B=34)-to-3=-83(F=-6, B=-6), 6=-0(F=10, B=10)-to-5=-19(F=1, B=1), 5=-19(F=1, B=1)-to-4=-24(F=-2, B=-2)



March 26, 2021

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

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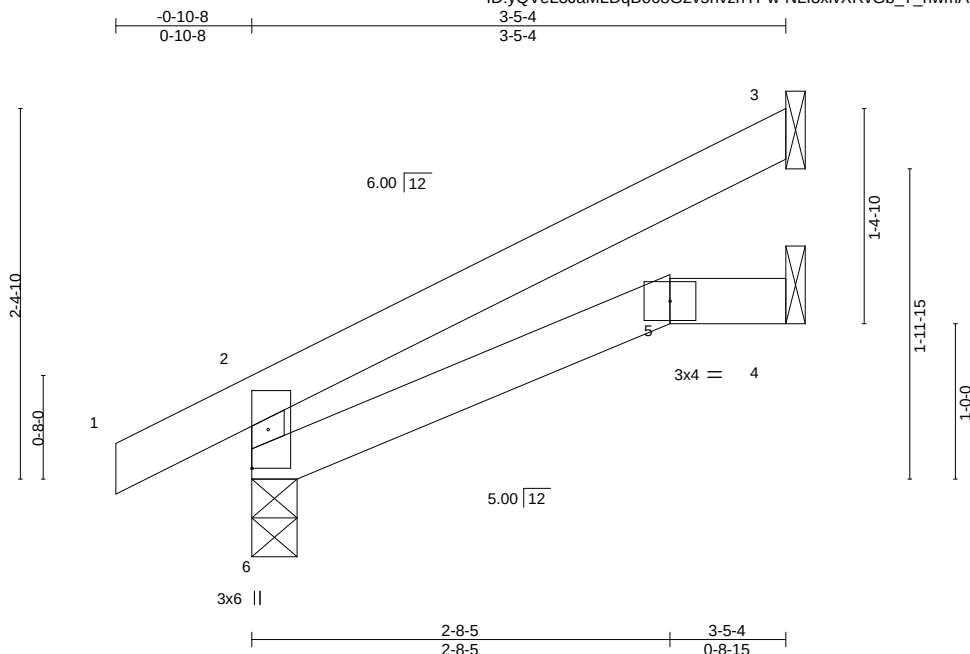
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382038
210401	J20	Jack-Open	6	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:57 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-NLf3xivXRvGb_7_hwmAOcqlLhVMApAJb_8qizdzX3dq



Scale = 1:14.8

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 0.15	Vert(LL)	-0.01	5-6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	5-6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	5-6	>999	240	
									Weight: 10 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=77(LC 8)
Max Uplift 6=26(LC 8), 3=60(LC 8)
Max Grav 6=226(LC 1), 3=101(LC 1), 4=62(LC 3)

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

NOTES-

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



March 26, 2021

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

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



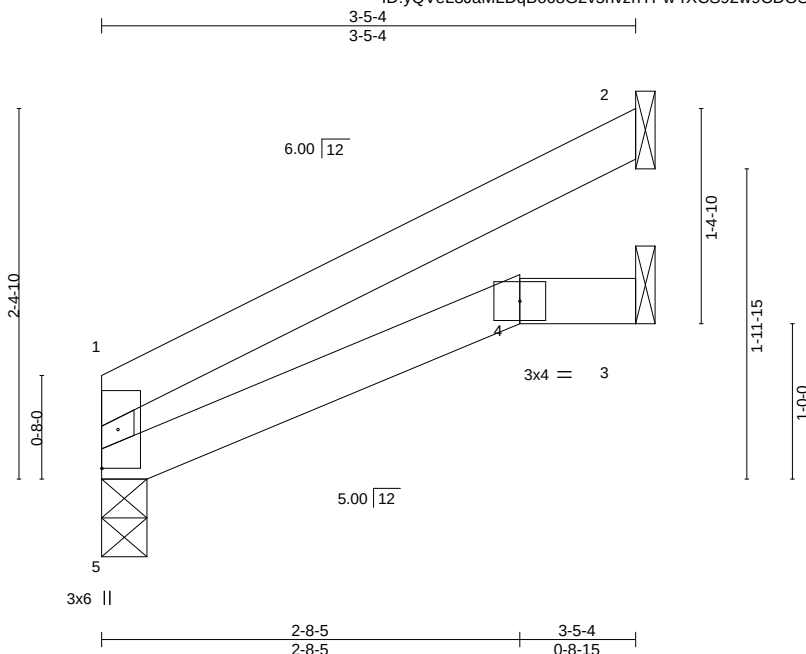
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382039
210401	J21	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:16:58 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-rXCS92w9CDOSchZtUUh91IW6uiMYdZIDoaFW3zX3dp



Scale = 1:14.8

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 0.17	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

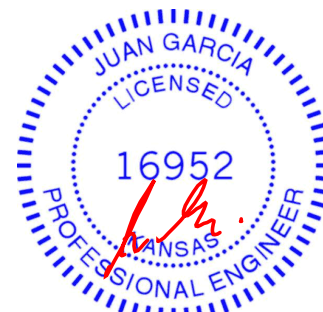
TOP CHORD Structural wood sheathing directly applied or 3-5-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 5=60(LC 8)
Max Uplift 5=-2(LC 8), 2=-62(LC 8)
Max Grav 5=147(LC 1), 2=108(LC 1), 3=63(LC 3)

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

NOTES-

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



March 26, 2021

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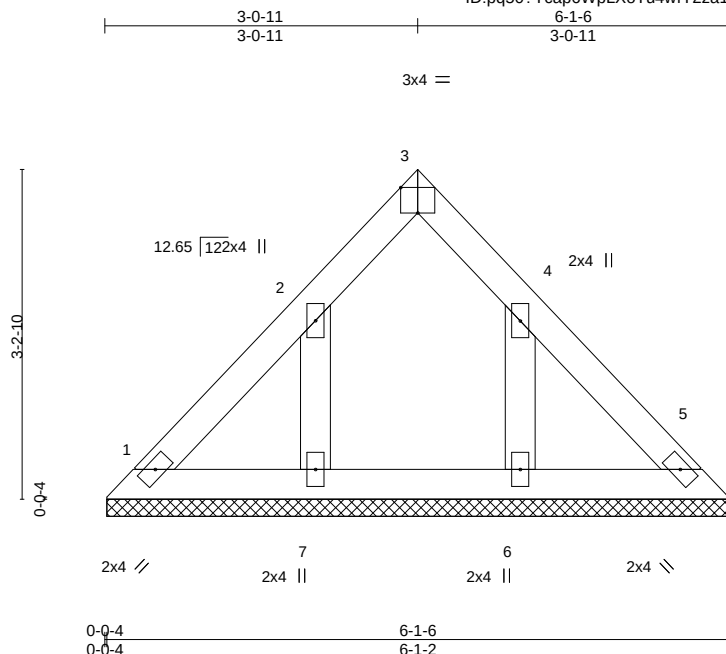


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss LAY1	Truss Type GABLE	Qty 1	Ply 1	Lot 129 H4 I45382040
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:04 2021 Page 1
ID:pq50?Ycap6WpLXoTu4wfY2za1nE-fhajP5_wo39cKC01rko2OIYZgJmryKidbk1ZjzX3dj



Scale = 1:22.5

Plate Offsets (X,Y)--		[3:Edge,0-3-0], [4:0-0-1,0-0-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			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 5 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 20 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 6-1-2.

- (lb) - Max Horz 1=-76(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) except 7=-102(LC 8), 6=-100(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 7 and 100 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

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

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



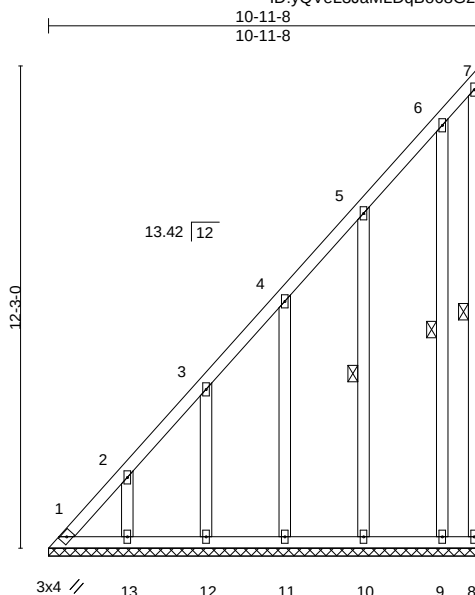
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss LAY2	Truss Type GABLE	Qty 3	Ply 1	Lot 129 H4 I45382041
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:04 2021 Page 1

ID: yQVeL3JaMLDqBo68G2v5nvznYPw-fhajP5_wo39cKC01rko2OIYY8JmsyJHdbk1ZjjzX3dj



Scale = 1:58.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 79 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 10-11-8.
(lb) - Max Horz 1=478(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8, 9 except 1=-157(LC 6), 13=-138(LC 8), 12=-135(LC 8), 11=-134(LC 8), 10=-144(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 8, 13, 12, 11, 10, 9 except 1=491(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-674/272, 2-3=-544/220, 3-4=-406/167, 4-5=-270/119

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 9 except (jt=lb) 1=157, 13=138, 12=135, 11=134, 10=144.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

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

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



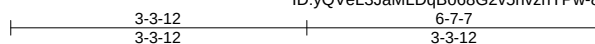
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210401	Truss LAY3	Truss Type GABLE	Qty 1	Ply 1	Lot 129 H4 I45382042
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Wheeler Lumber, Waverly, KS - 66871,

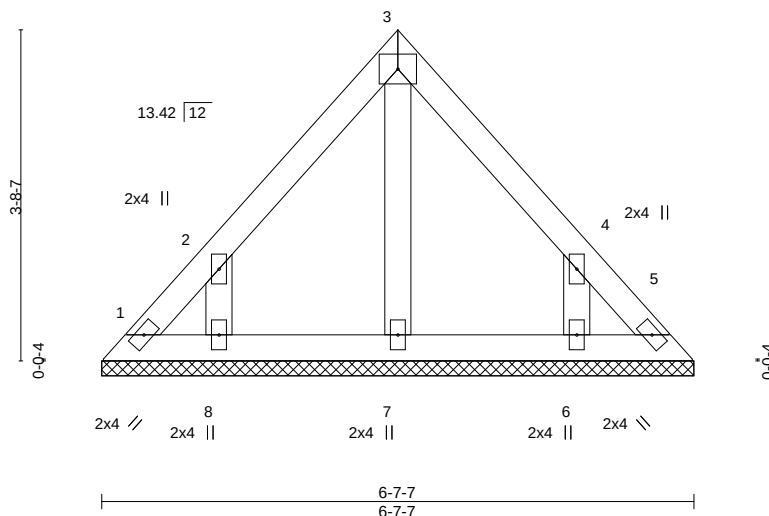
8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:05 2021 Page 1

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4x5 =

Scale = 1:25.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 23 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 6-7-7.
(lb) - Max Horz 1--90(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8--141(LC 8), 6--141(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=141, 6=141.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021

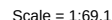
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:06 2021 Page 1
to68G2y5nyznYPw-c3hTqn0AKgPJZVAOv9rWTidvI7BGOD7w22WqobzX3dh



LUMBER-

BRACING-

REACTIONS.

All bearings 7-7-12.

(lb) - Max Horz 12=-340(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 12, 11 except 6=-420(LC 7), 9=-417(LC 9), 10=-142(LC 9), 8=-109(LC 9), 7=-366(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 12, 9, 11, 10, 8 except 6=1028(LC 9), 7=261(LC 16)

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

TOP CHORD 3-4=-266/117, 4-5=-412/170, 5-6=-738/300

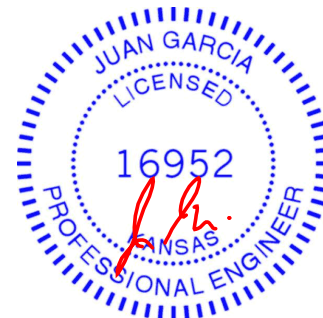
BOT CHORD 11-12=-130/340, 10-11=-130/340, 9-10=-130/340, 8-9=-204/548, 7-8=-210/519,

6-7=-210/503

WEBS 5-7=-222/391

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12, 11 except (jt=lb) 6=420, 9=417, 10=142, 8=109, 7=366.
- 7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 8, 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



March 26, 2021



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

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



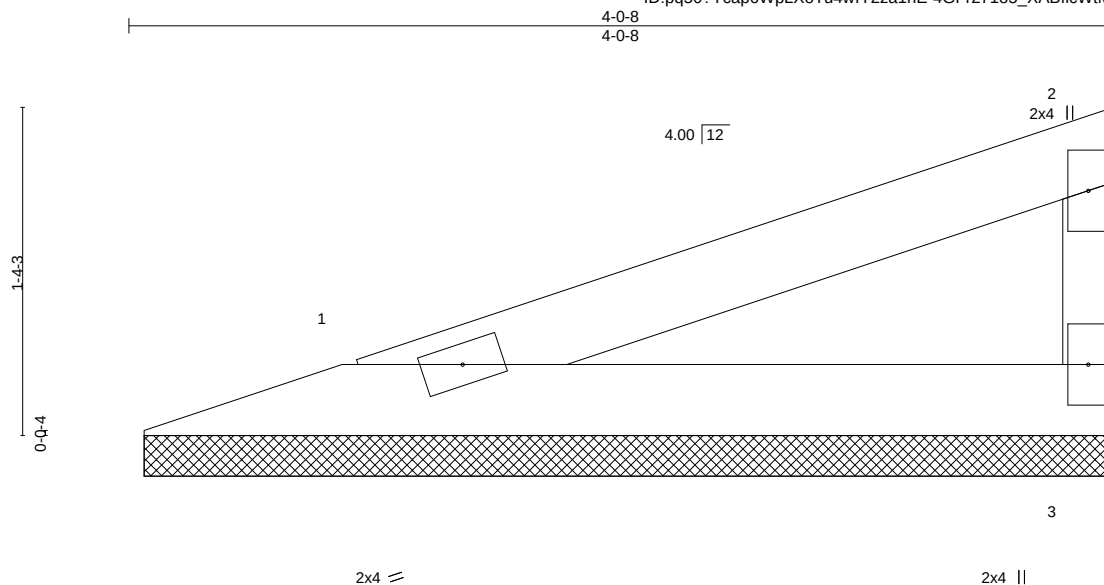
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382044
210401	V1	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Mar 4 2021 MiTek Industries, Inc. Fri Mar 26 12:17:07 2021 Page 1

ID:pq50?Ycap6WpLXoTu4wfY2za1nE-4GFr271o5_XABflcWtMI0xA20Xma9ho3HiFEK2zX3dg



Scale = 1:9.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

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

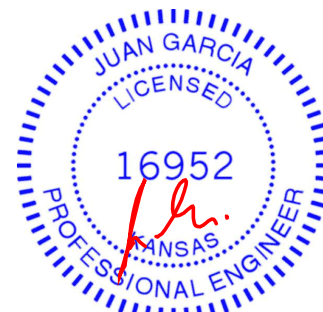
REACTIONS.

(size) 1=3-11-12, 3=3-11-12
Max Horz 1=45(LC 5)
Max Uplift 1=22(LC 4), 3=29(LC 8)
Max Grav 1=135(LC 1), 3=135(LC 1)

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

NOTES-

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



March 26, 2021

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

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

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

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



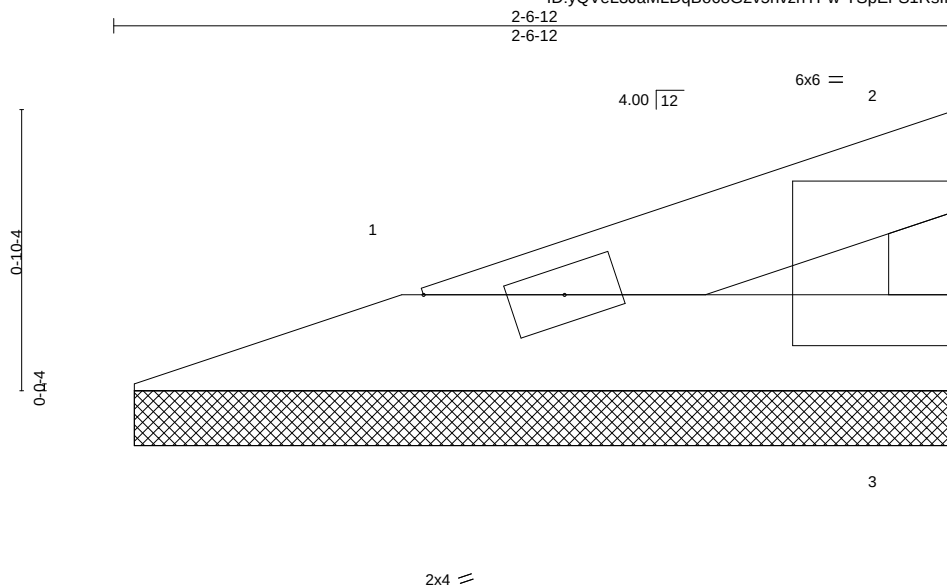
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 129 H4	I45382045
210401	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID: yQVeL3JaMLDqBo68G2v5nvznYPw-YSpEFS1Rslf1opKo3at_Z8iFgw7su82DWM?nsUzX3df



Scale = 1:7.0

Plate Offsets (X,Y)--		[2:Edge,0-1-14]									
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	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.02		Vert(CT)	n/a	-	n/a		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	-0.00	3	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P						Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-6-0, 3=2-6-0
Max Horz 1=23(LC 5)
Max Uplift 1=-11(LC 4), 3=-15(LC 8)
Max Grav 1=68(LC 1), 3=68(LC 1)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
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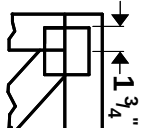
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



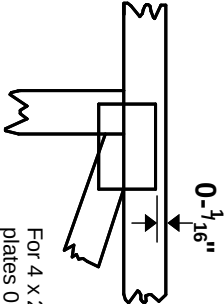
16023 Swingley Ridge Rd
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Symbols

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

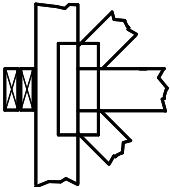
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



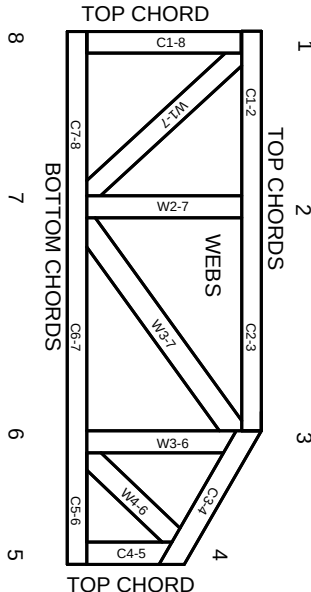
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.