



RE: 210302
Lot 80 RR

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

Site Information:

Customer: Project Name: 210302
Lot/Block:
Address:
City:

Model:
Subdivision:
State:



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

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

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

This package includes 64 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I44597100	A1	3/1/2021	21	I44597120	E3	3/1/2021
2	I44597101	A2	3/1/2021	22	I44597121	E4	3/1/2021
3	I44597102	B1	3/1/2021	23	I44597122	E5	3/1/2021
4	I44597103	B2	3/1/2021	24	I44597123	E6	3/1/2021
5	I44597104	B3	3/1/2021	25	I44597124	E7	3/1/2021
6	I44597105	B4	3/1/2021	26	I44597125	E8	3/1/2021
7	I44597106	B5	3/1/2021	27	I44597126	E9	3/1/2021
8	I44597107	B6	3/1/2021	28	I44597127	G1	3/1/2021
9	I44597108	B7	3/1/2021	29	I44597128	G2	3/1/2021
10	I44597109	B8	3/1/2021	30	I44597129	G3	3/1/2021
11	I44597110	B9	3/1/2021	31	I44597130	G4	3/1/2021
12	I44597111	C1	3/1/2021	32	I44597131	G5	3/1/2021
13	I44597112	C2	3/1/2021	33	I44597132	J1	3/1/2021
14	I44597113	D1	3/1/2021	34	I44597133	J2	3/1/2021
15	I44597114	D2	3/1/2021	35	I44597134	J3	3/1/2021
16	I44597115	D3	3/1/2021	36	I44597135	J4A	3/1/2021
17	I44597116	D4	3/1/2021	37	I44597136	J5A	3/1/2021
18	I44597117	D5	3/1/2021	38	I44597137	J8	3/1/2021
19	I44597118	E1	3/1/2021	39	I44597138	J9	3/1/2021
20	I44597119	E2	3/1/2021	40	I44597139	J10	3/1/2021

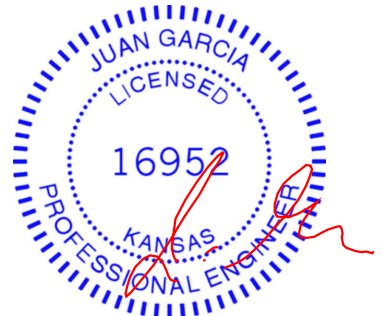
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

My license renewal date for the state of Kansas is April 30, 2022.

Kansas COA: E-943

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



March 01, 2021



RE: 210302 - Lot 80 RR

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City, County:

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No.	Seal#	Truss Name	Date
41	I44597140	J11	3/1/2021
42	I44597141	J12	3/1/2021
43	I44597142	J13	3/1/2021
44	I44597143	J14	3/1/2021
45	I44597144	J14A	3/1/2021
46	I44597145	J15A	3/1/2021
47	I44597146	J16	3/1/2021
48	I44597147	J17A	3/1/2021
49	I44597148	J18	3/1/2021
50	I44597149	J19	3/1/2021
51	I44597150	J20	3/1/2021
52	I44597151	J21	3/1/2021
53	I44597152	J22	3/1/2021
54	I44597153	J23	3/1/2021
55	I44597154	J24	3/1/2021
56	I44597155	J25	3/1/2021
57	I44597156	J26	3/1/2021
58	I44597157	J27	3/1/2021
59	I44597158	LAY2	3/1/2021
60	I44597159	LAY3	3/1/2021
61	I44597160	LAY4	3/1/2021
62	I44597161	V1	3/1/2021
63	I44597162	V2	3/1/2021
64	I44597163	V3	3/1/2021



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

Design Code: IRC2018/TPI2014

Wind Code: N/A

Roof Load: 45.0 psf

Design Program: MiTek 20/20 8.4

Wind Speed: 115 mph

Floor Load: N/A psf

This package includes 64 individual, dated Truss Design Drawings and 0 Additional Drawings.

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5	I44597104	B3	3/1/2021	25	I44597124	E7	3/1/2021
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8	I44597107	B6	3/1/2021	28	I44597127	G1	3/1/2021
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10	I44597109	B8	3/1/2021	30	I44597129	G3	3/1/2021
11	I44597110	B9	3/1/2021	31	I44597130	G4	3/1/2021
12	I44597111	C1	3/1/2021	32	I44597131	G5	3/1/2021
13	I44597112	C2	3/1/2021	33	I44597132	J1	3/1/2021
14	I44597113	D1	3/1/2021	34	I44597133	J2	3/1/2021
15	I44597114	D2	3/1/2021	35	I44597134	J3	3/1/2021
16	I44597115	D3	3/1/2021	36	I44597135	J4A	3/1/2021
17	I44597116	D4	3/1/2021	37	I44597136	J5A	3/1/2021
18	I44597117	D5	3/1/2021	38	I44597137	J8	3/1/2021
19	I44597118	E1	3/1/2021	39	I44597138	J9	3/1/2021
20	I44597119	E2	3/1/2021	40	I44597139	J10	3/1/2021

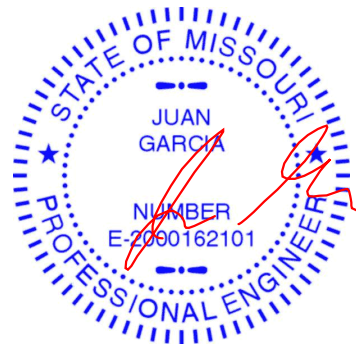
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

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

Missouri COA: 001193

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March 01, 2021



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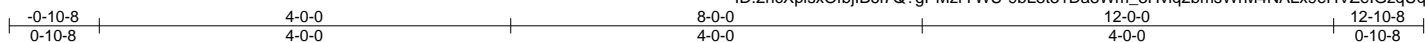
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43	I44597142	J13	3/1/2021
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45	I44597144	J14A	3/1/2021
46	I44597145	J15A	3/1/2021
47	I44597146	J16	3/1/2021
48	I44597147	J17A	3/1/2021
49	I44597148	J18	3/1/2021
50	I44597149	J19	3/1/2021
51	I44597150	J20	3/1/2021
52	I44597151	J21	3/1/2021
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62	I44597161	V1	3/1/2021
63	I44597162	V2	3/1/2021
64	I44597163	V3	3/1/2021

Job 210302	Truss A1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 80 RR 144597100
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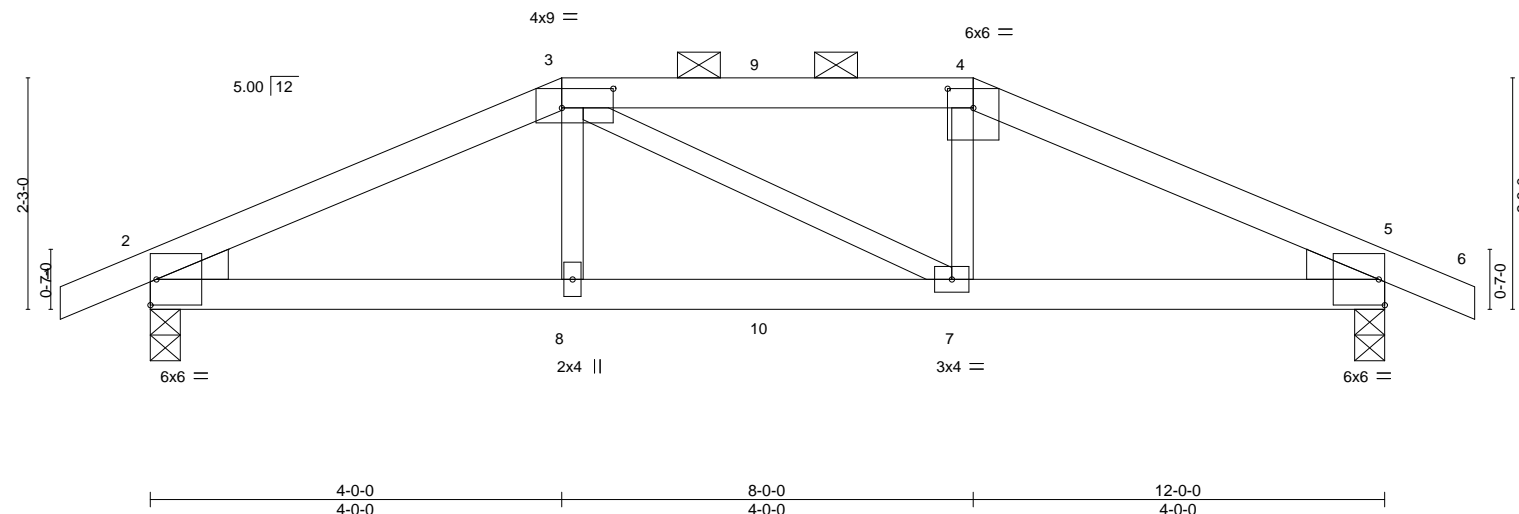
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:40 2021 Page 1

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Scale = 1:22.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.04	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.07				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.03				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03	Weight: 38 lb		FT = 10%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=36(LC 29)
Max Uplift 2=205(LC 8), 5=205(LC 9)
Max Grav 2=899(LC 1), 5=899(LC 1)

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

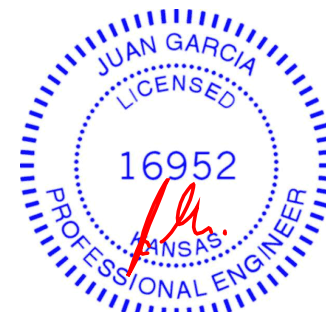
TOP CHORD 2-3=-1527/360, 3-4=-1326/339, 4-5=-1528/359
BOT CHORD 2-8=-288/1309, 7-8=-288/1325, 5-7=-284/1310
WEBS 3-8=-2/316, 4-7=-11/327

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) 2=205, 5=205.
- This truss 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) 80 lb down and 80 lb up at 4-0-0, and 85 lb down and 80 lb up at 6-0-0, and 80 lb down and 80 lb up at 8-0-0 on top chord, and 212 lb down and 72 lb up at 4-0-0, and 36 lb down at 6-0-0, and 212 lb down and 72 lb up at 7-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



January 29, 2021

Continued on page 2

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	A1	Hip Girder	1	1	I44597100
Job Reference (optional)					

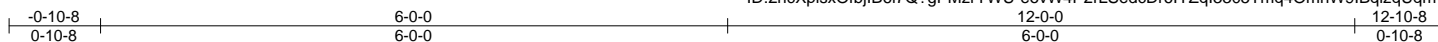
LOAD CASE(S) Standard
Uniform Loads (plf)
 Vert: 1-3=-70, 3-4=-70, 4-6=-70, 2-5=-20
Concentrated Loads (lb)
 Vert: 3=-53(F) 4=-53(F) 8=-212(F) 7=-212(F) 9=-53(F) 10=-18(F)

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597101
210302	A2	Common	3	1		

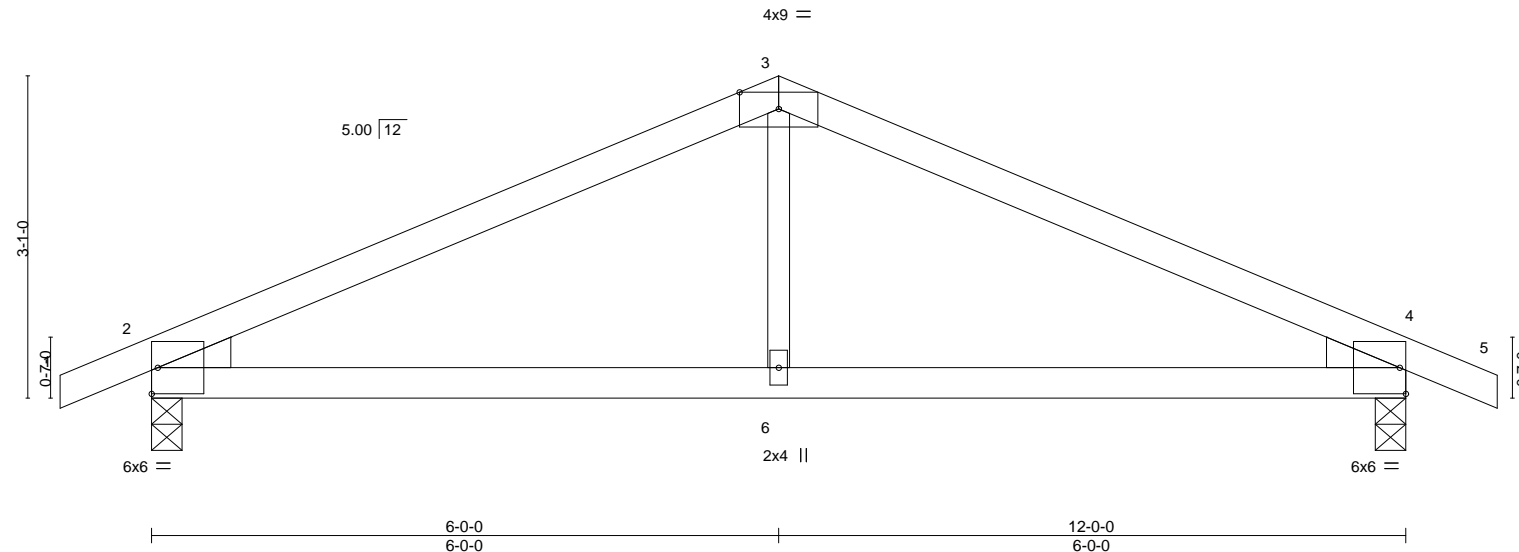
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:41 2021 Page 1

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Scale = 1:22.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.03	4-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.07	4-6	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	2-6	>999	240	Weight: 35 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x3 SPF No.2

WEDGE

Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2

REACTIONS.

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

Max Horz 2=50(LC 12)

Max Uplift 2=-91(LC 8), 4=-91(LC 9)

Max Grav 2=598(LC 1), 4=598(LC 1)

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

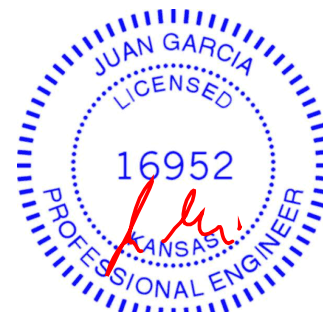
TOP CHORD 2-3=-782/88, 3-4=-782/87

BOT CHORD 2-6=-33/629, 4-6=-33/629

WEBS 3-6=0/283

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) 2, 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.



January 29,2021

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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 210302	Truss B1	Truss Type GABLE	Qty 1	Ply 1	Lot 80 RR 144597102
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:42 2021 Page 1
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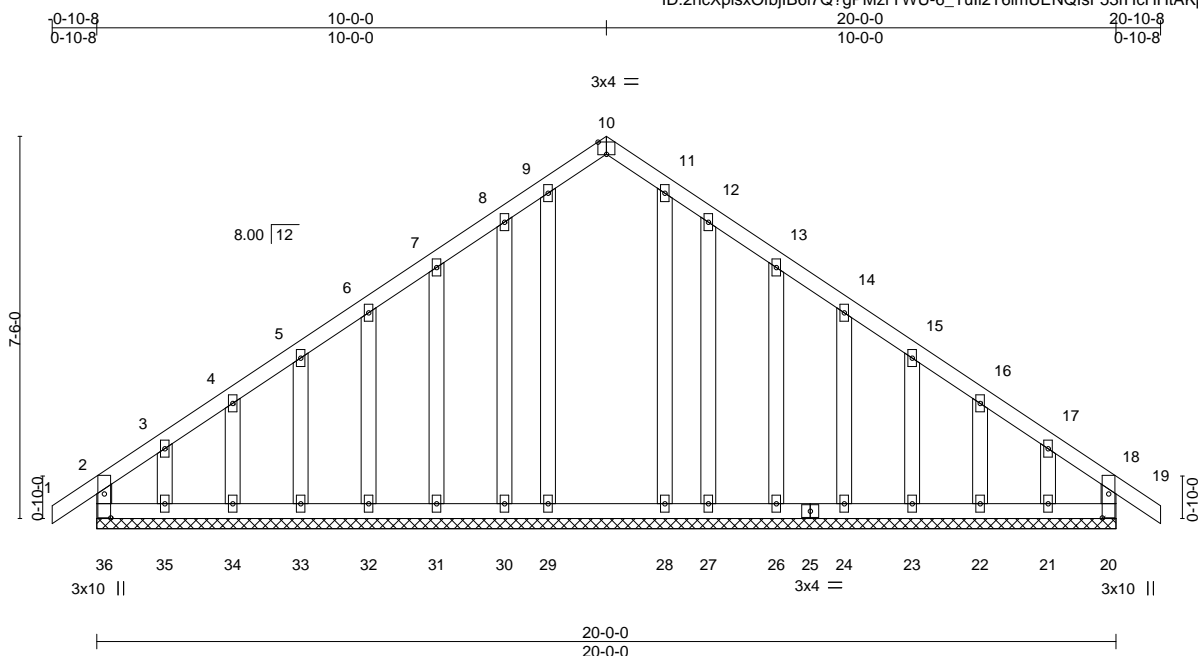


Plate Offsets (X,Y)--		[10:0-2-0,Edge], [20:0-5-10,0-1-8], [36:0-5-10,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	19	n/r	120	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	19	n/r	120	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	20	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R							Weight: 115 lb FT = 10%

LUMBER-

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

BRACING-

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

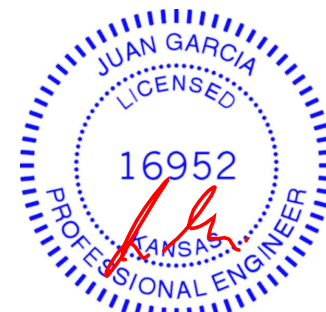
REACTIONS.

All bearings 20-0-0.
(lb) - Max Horz 36=213(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 36, 20, 34, 33, 32, 31, 30, 27, 26, 24, 23, 22 except 35=155(LC 8), 21=145(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 36, 20, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 24, 23, 22, 21

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 36, 20, 34, 33, 32, 31, 30, 27, 26, 24, 23, 22 except (it=lb) 35=155, 21=145.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597103
210302	B2	Common	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:43 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-aA1GV535t3vLrX?UQzclOU8PoHK6Y9W4zTnlvzbzUqk

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

4x5 =

Scale = 1:46.3

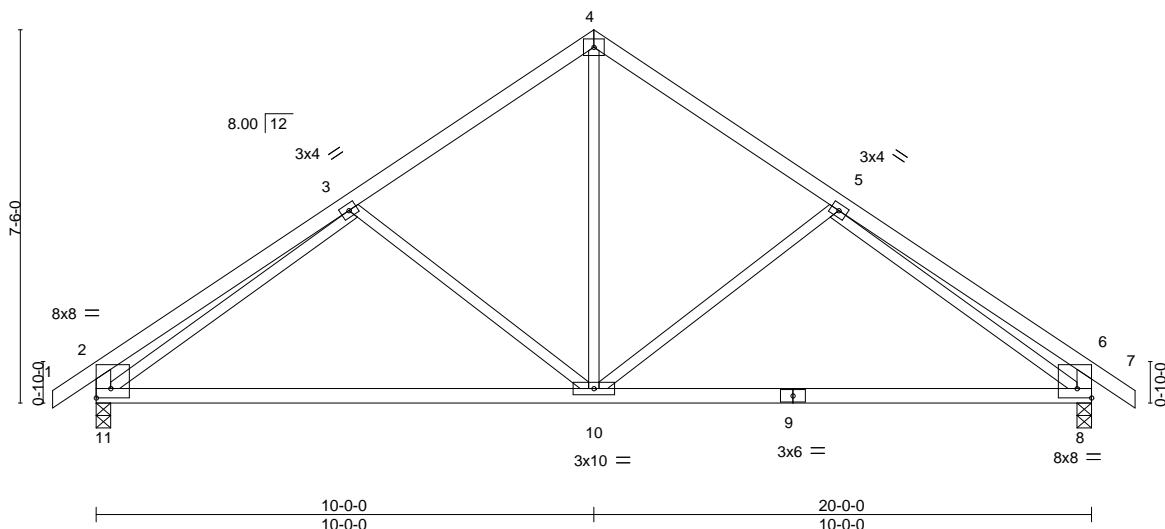


Plate Offsets (X,Y)-- [2:Edge,0-2-4], [8:Edge,0-2-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.18 8-10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.37 8-10	>633	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.03 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02 10	>999	240	Weight: 79 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-3 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 11=0-3-8, 8=0-3-8
Max Horz 11=213(LC 7)
Max Uplift 11=-123(LC 8), 8=-123(LC 9)
Max Grav 11=958(LC 1), 8=958(LC 1)

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

TOP CHORD 2-3=-485/125, 3-4=-875/159, 4-5=-875/158, 5-6=-485/124, 2-11=-460/148, 6-8=-460/148
BOT CHORD 10-11=-153/869, 8-10=-48/843
WEBS 4-10=-55/534, 5-10=-292/220, 3-10=-292/220, 3-11=-662/94, 5-8=-662/94

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=123, 8=123.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 29,2021

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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



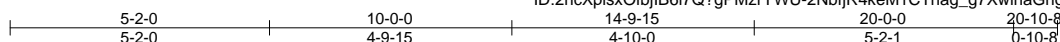
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597104
210302	B3	Common	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:44 2021 Page 1

ID:2ncXplsXOfbjlB6i7Q?gPMzrYWU-2NbfjR4keM1CTag_g7XwihaGhgKHbpEC7XrR1zqUqj



4x5 =

Scale = 1:45.9

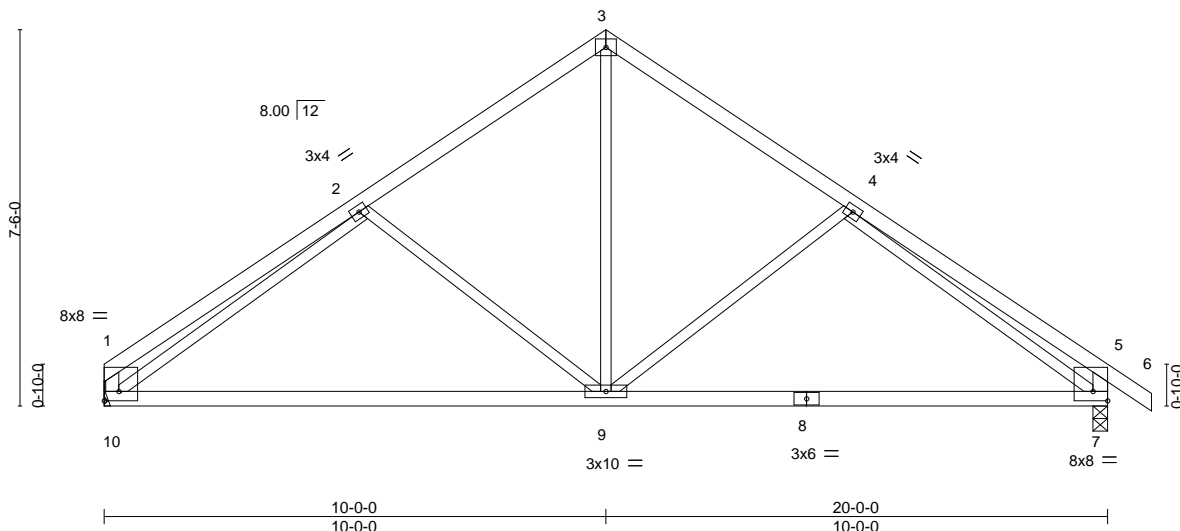


Plate Offsets (X,Y)--		[1:Edge,0-2-4], [7:Edge,0-2-4]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30
TCDL 10.0	Lumber DOL	1.15	BC 0.81
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.18 7-9 >999 360
			Vert(CT) -0.37 7-9 >633 240
			Horz(CT) 0.03 7 n/a n/a
			Wind(LL) 0.02 9 >999 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 78 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

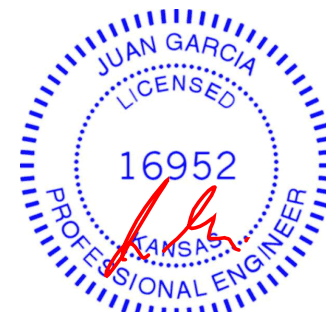
(size) 10=Mechanical, 7=0-3-8
Max Horz 10=-207(LC 6)
Max Uplift 10=-100(LC 8), 7=-123(LC 9)
Max Grav 10=885(LC 1), 7=960(LC 1)

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

TOP CHORD 1-2=-431/79, 2-3=-879/159, 3-4=-877/159, 4-5=-485/124, 1-10=-348/94, 5-7=-460/148
BOT CHORD 9-10=-156/879, 7-9=-48/846
WEBS 3-9=-57/541, 4-9=-292/220, 2-9=-302/224, 2-10=-724/125, 4-7=-665/94

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 7=123.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 29,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597105
210302	B4	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

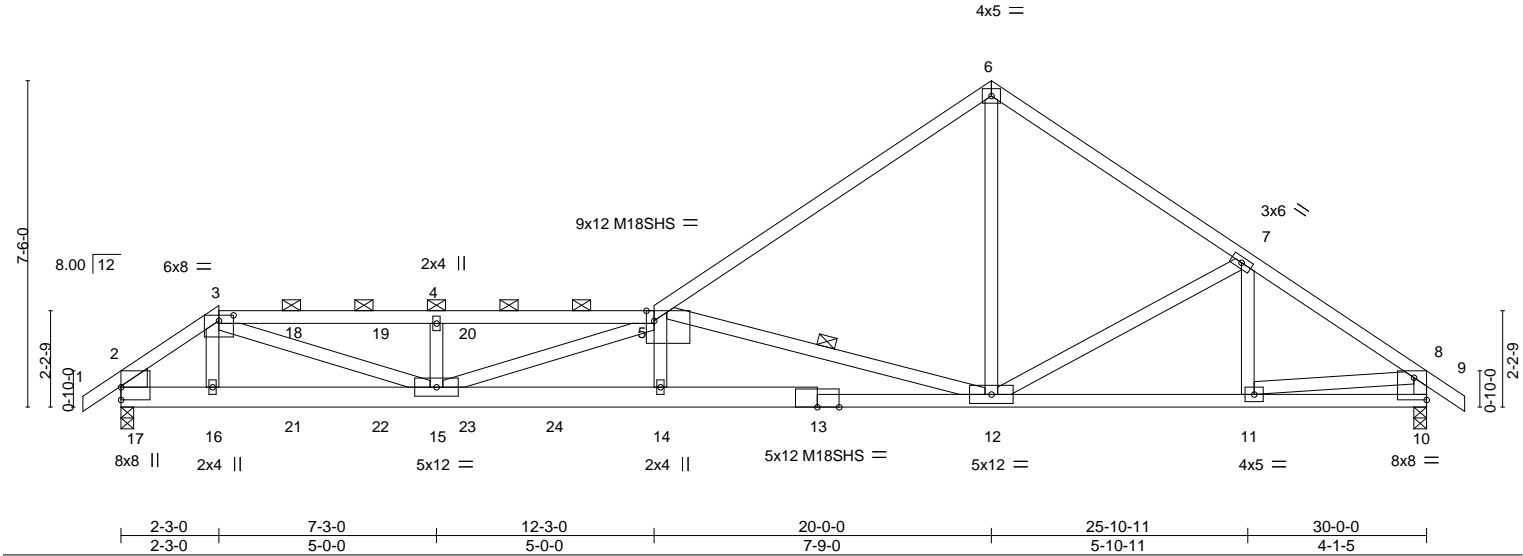
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:45 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-WZ91wn5MPg935q9tXNemTvEbT5zz00ZNQnGPzTzqUqi

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

Scale = 1:52.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.39 14-15 >907 360	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.69 14-15 >511 240	M18SHS	197/144		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.87	Horz(CT)	0.08 10 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.30 14-15 >999 240			Weight: 273 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-2 max.): 3-5.
BOT CHORD	2x6 SPF 1650F 1.4E *Except* 10-13: 2x4 SPF 2100F 1.8E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2 *Except* 2-17: 2x8 SP DSS	WEBS	1 Row at midpt 5-12

REACTIONS. (size) 17=0-3-8, 10=0-3-8
Max Horz 17=213(LC 7)
Max Uplift 17=516(LC 8), 10=234(LC 9)
Max Grav 17=2628(LC 1), 10=1826(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2927/546, 3-4=-7731/1381, 4-5=-7731/1381, 5-6=-2347/346, 6-7=-2302/404, 7-8=-2425/318, 2-17=-1824/353, 8-10=-1779/251
BOT CHORD 16-17=-511/2360, 15-16=-525/2405, 14-15=-1490/8859, 12-14=-1490/8908, 11-12=-200/1957
WEBS 3-16=-592/174, 3-15=-954/5688, 4-15=-722/331, 5-15=-1209/233, 5-14=-12/647, 5-12=-7305/1335, 6-12=-237/1943, 7-12=-293/222, 8-11=-176/1782

- NOTES-**
- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 3) Unbalanced roof live loads have been considered for this design.
 - 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 5) Provide adequate drainage to prevent water ponding.
 - 6) All plates are MT20 plates unless otherwise indicated.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 17=516, 10=234.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	B4	ROOF SPECIAL GIRDER	1	2	I44597105
Job Reference (optional)					

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 158 lb down and 98 lb up at 3-11-4, and 158 lb down and 98 lb up at 5-11-4, and 158 lb down and 98 lb up at 7-11-4 on top chord, and 199 lb down and 86 lb up at 2-3-0, 66 lb down at 3-11-4, 66 lb down at 5-11-4, and 66 lb down at 7-11-4, and 1017 lb down and 175 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-8=-70, 8-9=-70, 10-17=-20

Concentrated Loads (lb)

Vert: 16=-199(F) 18=-108(F) 19=-108(F) 20=-108(F) 21=-33(F) 22=-33(F) 23=-33(F) 24=-1017(F)



Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597106
210302	B5	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-..liP775_A_Hwi_k3559??7mqJUQ2IVcXfR0yWwzqUqh

Job Reference (optional)

0-10-8 3-3-0 8-1-12 13-3-0 20-0-0 24-10-0 30-0-0 30-10-8
0-10-8 3-3-0 4-10-12 5-1-4 6-9-0 4-10-0 5-2-1 0-10-8

Scale = 1:52.9

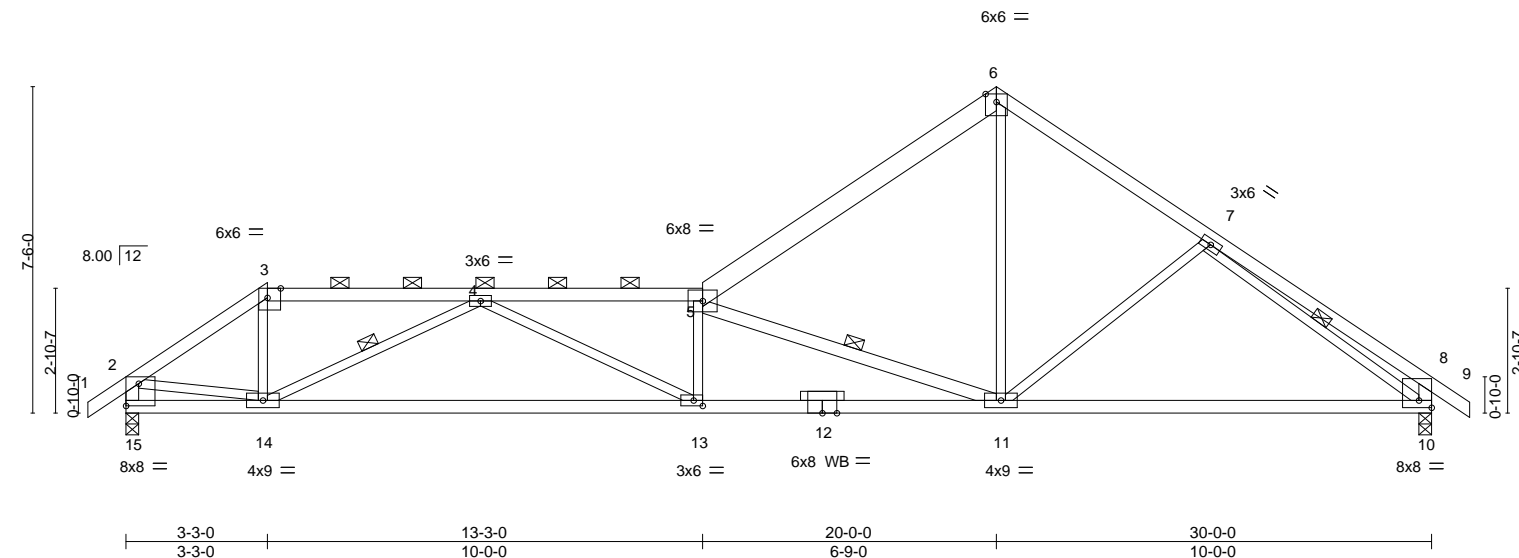


Plate Offsets (X,Y)--		[3:0-3-10,Edge], [10:Edge,0-2-0], [13:0-2-8,0-1-8], [15:Edge,0-6-2]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.65	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.54	Vert(LL) -0.25 13 >999 360
BCLL 0.0 *	Rep Stress Incr YES	WB 0.75	Vert(CT) -0.57 13-14 >628 240
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.09 10 n/a n/a
			Wind(LL) 0.19 13 >999 240
			Weight: 122 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
5-11,2-15,8-10: 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-1 oc purlins, except end verticals, and 2-0-0 oc purlins (2-5-14 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-14, 5-11, 7-10

REACTIONS.

(size) 15=0-3-8, 10=0-3-8
Max Horz 15=213(LC 6)
Max Uplift 15=230(LC 8), 10=142(LC 9)
Max Grav 15=1408(LC 1), 10=1408(LC 1)

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

TOP CHORD 2-3=-1817/241, 3-4=-1442/232, 4-5=-3826/524, 5-6=-1609/209, 6-7=-1612/267, 7-8=-624/121, 2-15=-1421/212, 8-10=-546/147
BOT CHORD 13-14=-538/3028, 11-13=-538/3836, 10-11=-128/1402
WEBS 3-14=-22/724, 4-14=-1787/334, 4-13=-22/897, 5-13=-257/110, 5-11=-2762/498, 6-11=-114/1256, 2-14=-80/1380, 7-10=-1235/190

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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=230, 10=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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597107
210302	B6	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

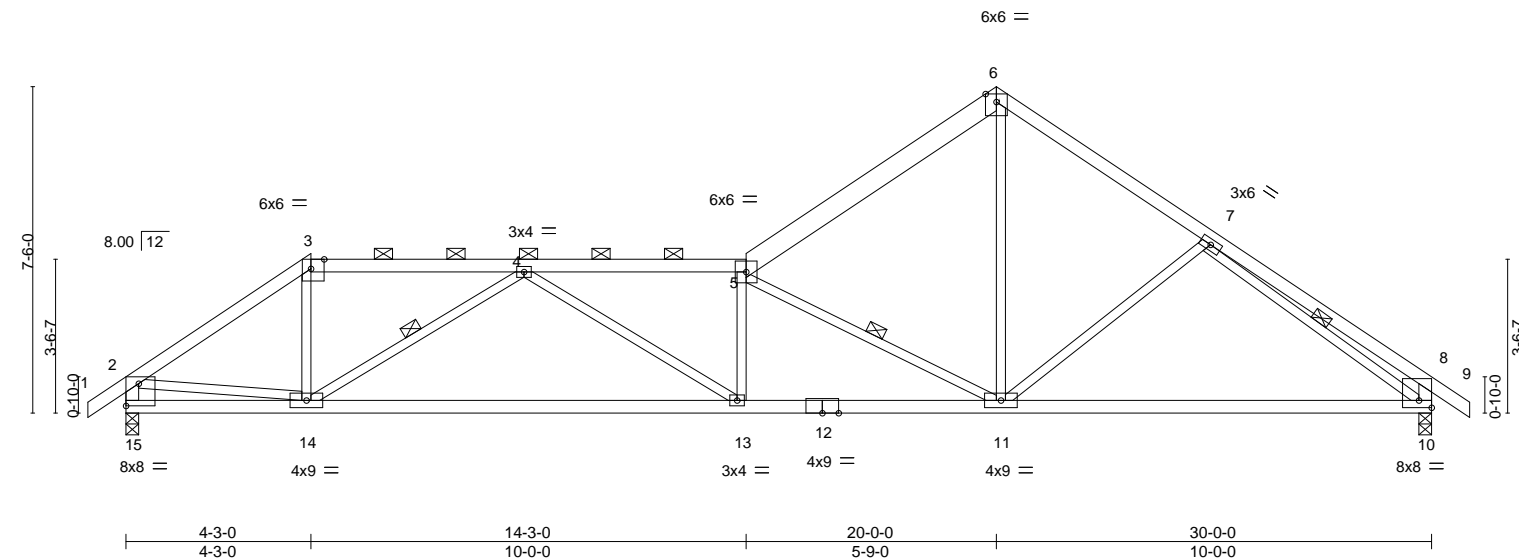
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ID:2ncXplsxOfbjB6l7Q?gPMzrYWU-SyGnLS6cwHPnK8JFfogEYKJ1GugFUvJgu5IW2MzqUqg

Job Reference (optional)

0-10-8 4-3-0 9-1-12 14-3-0 20-0-0 24-10-0 30-0-0 30-10-8
0-10-8 4-3-0 4-10-12 5-1-4 5-9-0 4-10-0 5-2-1 0-10-8

Scale = 1:52.9



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 0.51	Vert(LL)	-0.29 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.64 13-14	>554	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.10 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.15 13	>999	240	Weight: 120 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15,8-10: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-11-4 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 4-14, 5-11, 7-10

REACTIONS.

(size) 15=0-3-8, 10=0-3-8
Max Horz 15=-213(LC 6)
Max Uplift 15=-230(LC 8), 10=-142(LC 9)
Max Grav 15=1408(LC 1), 10=1408(LC 1)

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

TOP CHORD 2-3=-1858/260, 3-4=-1460/256, 4-5=-3080/432, 5-6=-1612/221, 6-7=-1610/267,
7-8=-620/116, 2-15=-1399/229, 8-10=-544/145
BOT CHORD 14-15=-218/325, 13-14=-448/2585, 11-13=-418/3085, 10-11=-129/1401
WEBS 3-14=-20/711, 4-14=-1344/250, 4-13=-18/590, 5-11=-2102/397, 6-11=-140/1291,
2-14=-37/1301, 7-10=-1238/198

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=230, 10=142.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 29,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597108
210302	B7	Roof Special	1	1	Job Reference (optional)	

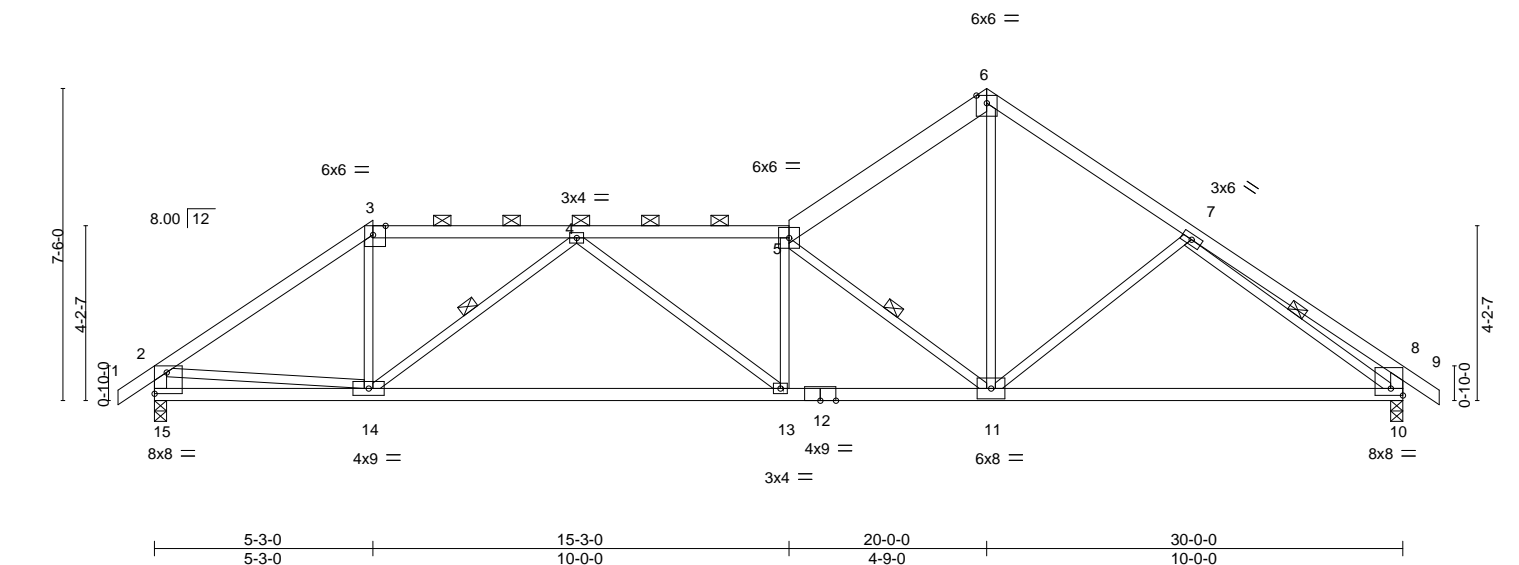
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:48 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-w8q9Yo7EhbXeyluSDWBT4YsDHI19DQnp7lV3aozqUqf

0-10-8 5-3-0 10-1-12 15-3-0 20-0-0 24-10-0 30-0-0 30-10-8
0-10-8 5-3-0 4-10-12 5-1-4 4-9-0 4-10-0 5-2-1 0-10-8

Scale = 1:55.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.28 13-14 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.61 13-14 >585 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.08 10 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.12 13 >999 240				

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-15,8-10: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-11-12 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-8 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 9-3-4 oc bracing.
WEBS 1 Row at midpt 4-14, 5-11, 7-10

REACTIONS. (size) 15=0-3-8, 10=0-3-8
Max Horz 15=-213(LC 6)
Max Uplift 15=-230(LC 8), 10=-142(LC 9)
Max Grav 15=1408(LC 1), 10=1408(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1868/270, 3-4=-1452/274, 4-5=-2564/373, 5-6=-1590/232, 6-7=-1608/267, 7-8=-620/115, 2-15=-1381/241, 8-10=-543/144
BOT CHORD 14-15=-252/439, 13-14=-379/2269, 11-13=-330/2566, 10-11=-129/1402
WEBS 3-14=-10/675, 4-14=-1039/191, 4-13=-16/384, 5-11=-1699/335, 6-11=-164/1327, 2-14=-56/1169, 7-10=-1237/201

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=230, 10=142.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 29,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597109
210302	B8	Roof Special	1	1		

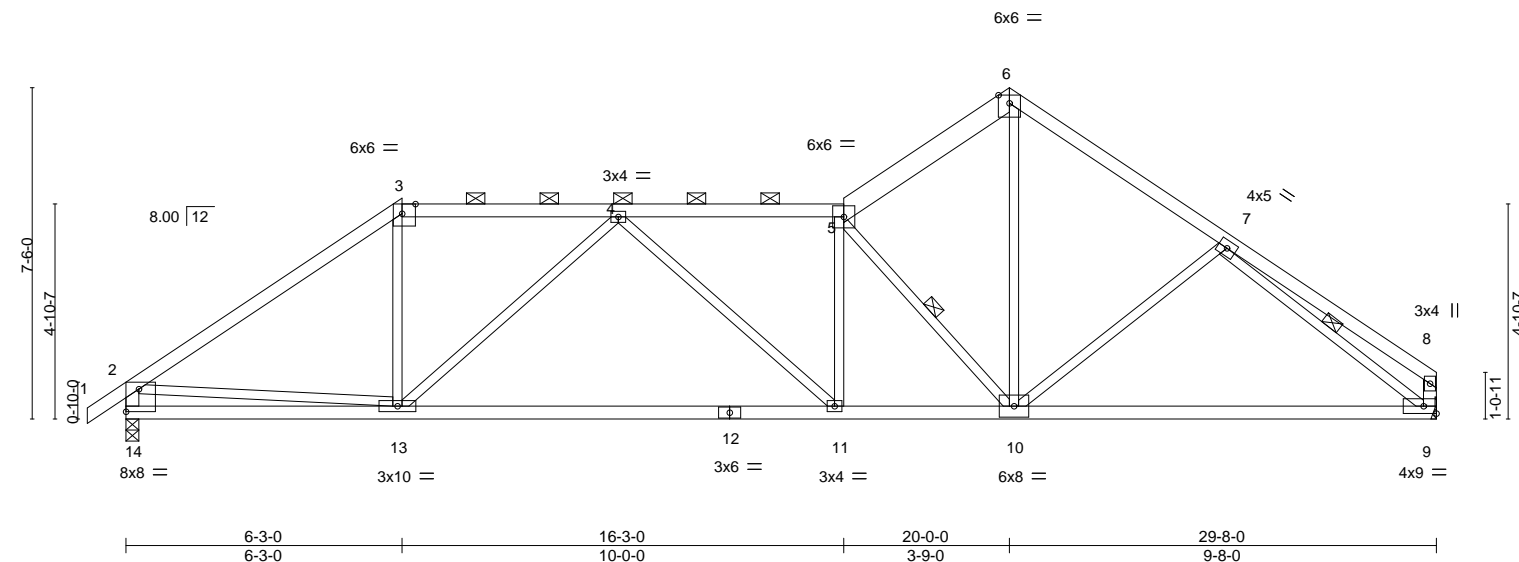
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:50 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-tWYwzU9UDCnMBc1qKxExAzXT6iHhGJ6a3_AfhzqUqd

0-10-8 6-3-0 11-1-12 16-3-0 20-0-0 24-10-0 29-8-0
0-10-8 6-3-0 4-10-12 5-1-4 3-9-0 4-10-0 4-10-0

Scale = 1:52.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	-0.26 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.57 11-13	>619	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.90	Horz(CT)	0.07 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 11-13	>999	240	Weight: 120 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-14,8-9: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 14=0-3-8, 9=Mechanical
Max Horz 14=208(LC 5)
Max Uplift 14=228(LC 8), 9=121(LC 8)
Max Grav 14=1395(LC 1), 9=1321(LC 1)

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

TOP CHORD 2-3=-1839/273, 3-4=-1413/286, 4-5=-2131/326, 5-6=-1522/240, 6-7=-1561/263,
7-8=-370/53, 2-14=-1352/251, 8-9=-310/76
BOT CHORD 13-14=-325/566, 11-13=-331/1992, 10-11=-268/2131, 9-10=-133/1318
WEBS 3-13=0/612, 4-13=-788/168, 5-10=-1442/296, 6-10=-185/1313, 2-13=-96/990,
7-9=-1417/227

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=228, 9=121.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 29, 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



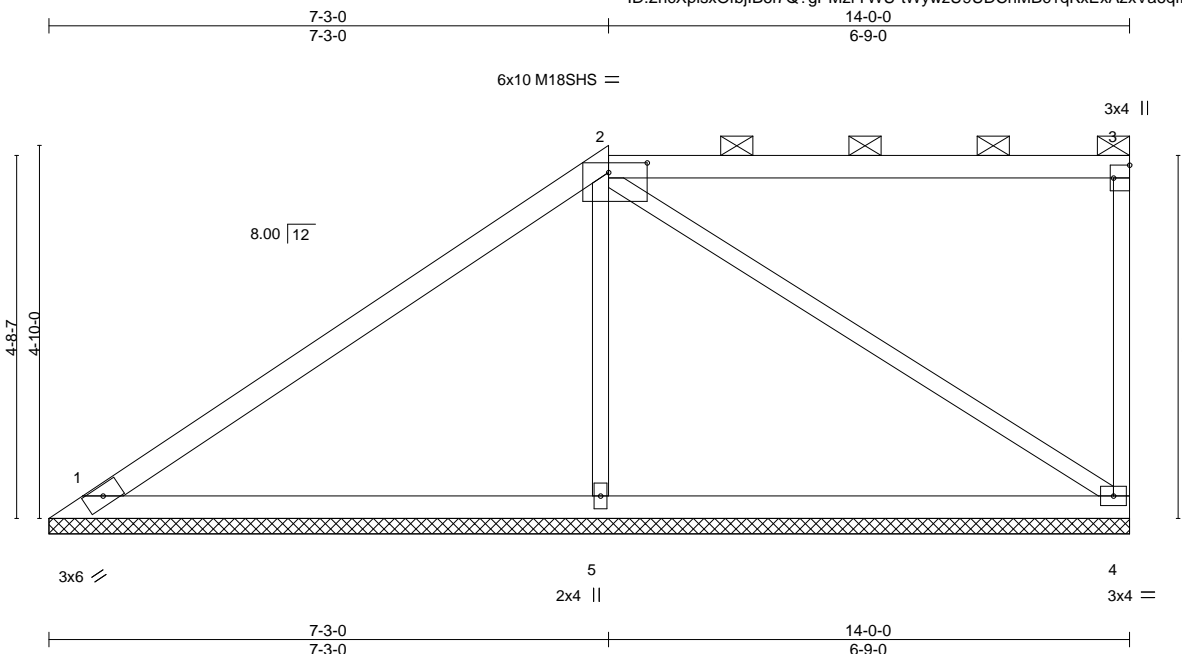
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210302	Truss B9	Truss Type Half Hip	Qty 1	Ply 1	Lot 80 RR	I44597110
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:50 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-tWywzU9UDCnMBc1qKxExAzxVa6qfhRI6a3_AfhzqUqd



Scale = 1:29.9

Plate Offsets (X,Y)-- [2:0-6-0,0-1-8], [3:Edge,0-2-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	n/a -	n/a	999
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	n/a -	n/a	999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.20	Horz(CT)	-0.00 4	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				PLATES			GRIP
				MT20			197/144
				M18SHS			197/144
				Weight: 46 lb			FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=14'-0", 4=14'-0", 5=14'-0"
Max Horz 1=175(LC 5)
Max Uplift 1=52(LC 8), 4=85(LC 5), 5=54(LC 5)
Max Grav 1=310(LC 1), 4=314(LC 1), 5=583(LC 1)

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

WEBS 2-5=-402/148

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



January 29, 2021

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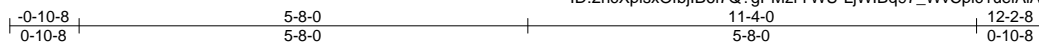
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210302	Truss C1	Truss Type GABLE	Qty 1	Ply 1	Lot 80 RR 144597111
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:51 2021 Page 1

ID:2ncXplsXOfbjlB617Q?gPMzrYWU-LjWIBq97_VwCplc1uelAiAUp5VF6QxDGpjjjB7zqUqc



3x4 =

Scale = 1:29.1

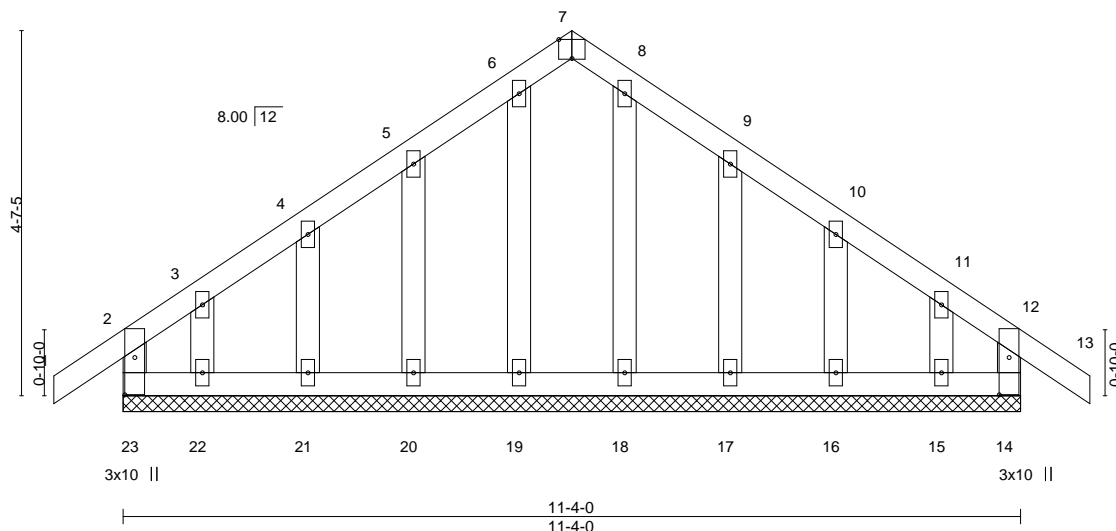


Plate Offsets (X,Y)--										[7:0-2-0,Edge], [14:0-5-10,0-1-8], [23:0-5-10,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP							
TCLL	25.0	Plate Grip DOL 1.15		TC	0.07	Vert(LL)	-0.00	13	n/r	120	MT20	197/144							
TCDL	10.0	Lumber DOL 1.15		BC	0.04	Vert(CT)	-0.00	13	n/r	120									
BCLL	0.0 *	Rep Stress Incr YES		WB	0.03	Horz(CT)	0.00	14	n/a	n/a									
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 53 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 6-0-0 oc bracing.

REACTIONS.

All bearings 11-4-0.
(lb) - Max Horz 23=137(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 23, 14, 22, 21, 20, 17, 16, 15
Max Grav All reactions 250 lb or less at joint(s) 23, 14, 22, 21, 20, 19, 18, 17, 16, 15

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 14, 22, 21, 20, 17, 16, 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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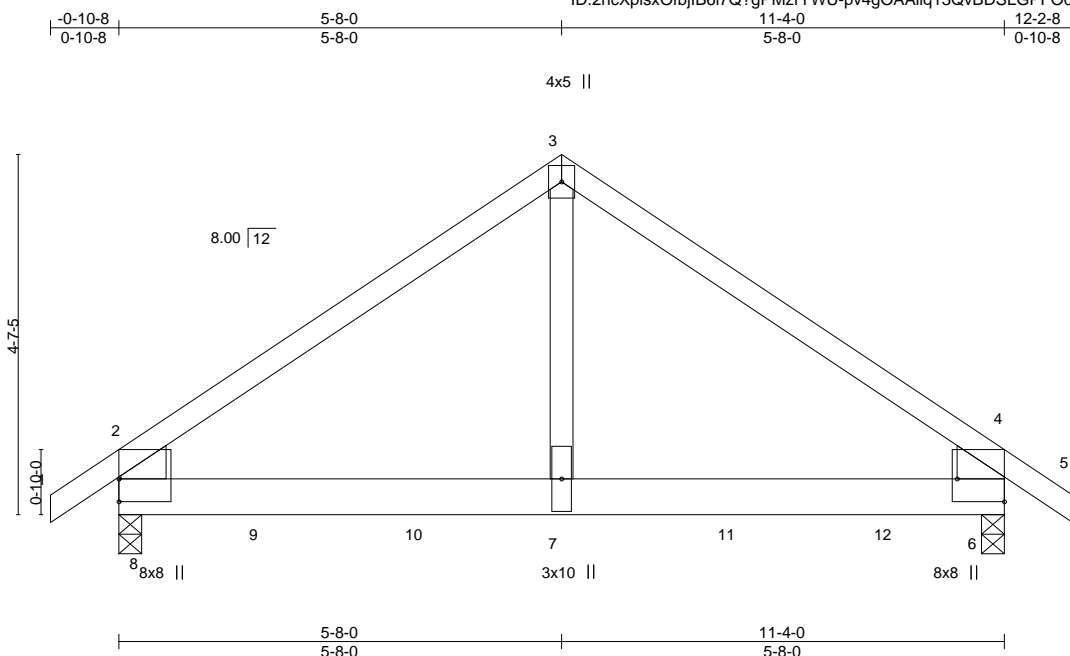
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597112
210302	C2	Common Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:52 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-pv4gOAAIlq13QvBDSLGPFO0tSvUu9HRP1NTGjZzqUqb



Scale = 1:29.5

Plate Offsets (X,Y)-- [6:Edge,0-7-4]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.06	7-8	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.10	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.48	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	7-8	>999	Weight: 104 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 2x8 SP 2400F 2.0E *Except*
 3-7: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 6=0-3-8
 Max Horz 8=138(LC 6)
 Max Uplift 8=145(LC 8), 6=148(LC 9)
 Max Grav 8=3949(LC 2), 6=4125(LC 2)

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

TOP CHORD 2-3=-3784/158, 3-4=-3784/158, 2-8=-2336/174, 4-6=-2336/174
 BOT CHORD 7-8=-49/3047, 6-7=-49/3047
 WEBS 3-7=-41/3886

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=145, 6=148.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1421 lb down and 34 lb up at 1-10-0, 1421 lb down and 34 lb up at 3-10-0, 1421 lb down and 34 lb up at 5-10-0, and 1421 lb down and 34 lb up at 7-10-0, and 1421 lb down and 34 lb up at 9-10-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2



January 29,2021

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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 80 RR
210302	C2	Common Girder	1	2	I44597112
					Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:53 2021 Page 2
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-H5e2bWBNW79w23mP?3nenbZ2CJq7ujhZG1CqG0zqUqa

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, 6-8=-20
- Concentrated Loads (lb)
 - Vert: 7=-1373(B) 9=-1373(B) 10=-1373(B) 11=-1373(B) 12=-1373(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597113
210302	D1	HIP GIRDER	1	2	Job Reference (optional)	

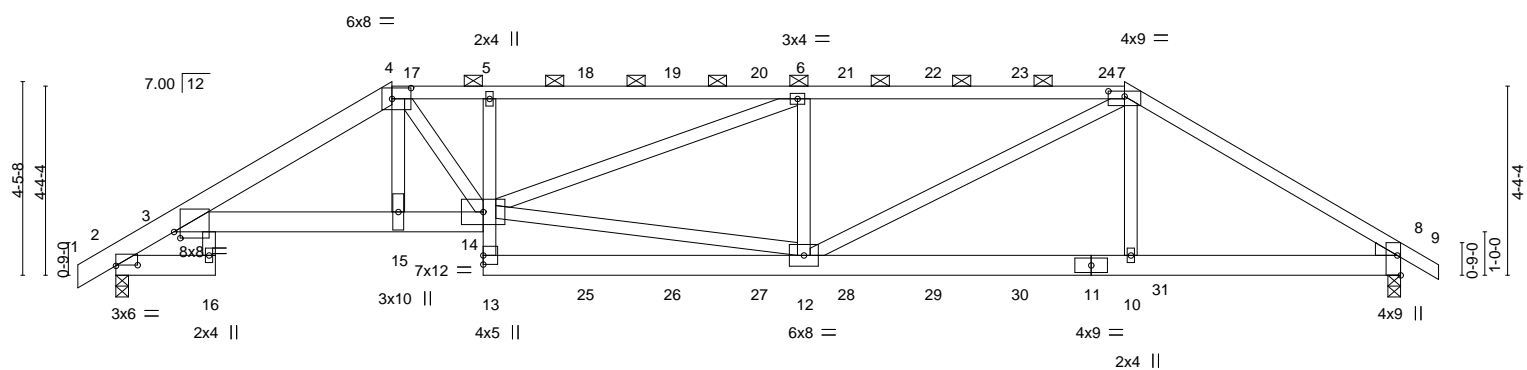
Wheeler Lumber,
Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc.
Fri Jan 29 12:47:55 2021
Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-DUIp0CCd2lPeINwo7Uq6t0eN?7P7Md6rkLhxKuzqUqY

-0-10-8
2-3-8
6-4-5
8-5-8
15-10-2
23-2-11
29-7-0
30-5-8

0-10-8
2-3-8
4-0-13
2-1-3
7-4-10
7-4-10
6-4-5
0-10-8

Scale = 1:53.1



	2-3-8	6-4-5	8-5-8	15-10-2	23-2-11	29-7-0	
	2-3-8	4-0-13	2-1-3	7-4-10	7-4-10	6-4-5	
Plate Offsets (X,Y)--	[2:0-6-0,0-0-3], [3:0-1-11,0-1-11], [4:0-5-4,0-3-0], [7:0-4-8,0-1-7], [8:Edge,0-0-15]						
LOADING (psf)	SPACING-		CSI.		DEFL.		PLATES
TCLL 25.0	2-0-0		TC 0.59		in (loc) l/defl L/d		GRIP
TCDL 10.0	Plate Grip DOL 1.15		BC 0.86		Vert(LL) -0.15 14 >999 360		MT20 197/144
BCLL 0.0 *	Lumber DOL 1.15		WB 0.48		Vert(CT) -0.27 12-13 >999 240		
BCDL 10.0	Rep Stress Incr NO		Matrix-S		Horz(CT) 0.18 8 n/a n/a		
	Code IRC2018/TPI2014				Wind(LL) 0.13 14 >999 240		Weight: 299 lb FT = 10%

LUMBER-
TOP CHORD 2x6 SP DSS *Except*
4-7: 2x4 SPF 2100F 1.8E, 7-9: 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
5-13: 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 2-16.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=112(LC 7)
Max Uplift 2=477(LC 8), 8=446(LC 9)
Max Grav 2=2363(LC 1), 8=2366(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1493/334, 3-4=-4908/1070, 4-5=-4952/1087, 5-6=-4958/1095, 6-7=-4701/906,
7-8=-3918/731
BOT CHORD 3-15=-990/4315, 14-15=-1002/4368, 5-14=-535/269, 12-13=-118/808, 10-12=-547/3168,
8-10=-549/3192
WEBS 4-15=-254/1074, 4-14=-281/1071, 12-14=-799/3927, 6-14=-214/316, 6-12=-1105/496,
7-12=-418/1831, 7-10=-57/639

- 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, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) 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=477, 8=446.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

On the ground plane representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 29,2021

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

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	D1	HIP GIRDER	1	2	I44597113
Job Reference (optional)					

NOTES-

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 122 lb down and 99 lb up at 6-9-7, 125 lb down and 77 lb up at 8-9-7, 125 lb down and 77 lb up at 10-9-7, 125 lb down and 77 lb up at 12-9-7, 125 lb down and 77 lb up at 14-9-7, 125 lb down and 77 lb up at 16-9-8, 125 lb down and 77 lb up at 18-9-8, and 125 lb down and 77 lb up at 20-9-8, and 120 lb down and 77 lb up at 22-9-8 on top chord, and 351 lb down and 184 lb up at 6-4-5, 53 lb down and 28 lb up at 6-9-7, 60 lb down at 8-7-4, 60 lb down at 10-9-7, 60 lb down at 12-9-7, 60 lb down at 14-9-7, 60 lb down at 16-9-8, 60 lb down at 18-9-8, 60 lb down at 20-9-8, and 60 lb down at 22-9-8, and 357 lb down and 168 lb up at 23-2-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-70, 4-7=-70, 7-9=-70, 2-16=-20, 3-14=-20, 8-13=-20

Concentrated Loads (lb)

Vert: 14=-45(F) 5=-93(F) 15=-395(F) 10=-357(F) 17=-73(F) 18=-93(F) 19=-93(F) 20=-93(F) 21=-93(F) 22=-93(F) 23=-93(F) 24=-93(F) 25=-45(F) 26=-45(F) 27=-45(F) 28=-45(F) 29=-45(F) 30=-45(F) 31=-45(F)

Job 210302	Truss D2	Truss Type Hip	Qty 1	Ply 1	Lot 80 RR 144597114
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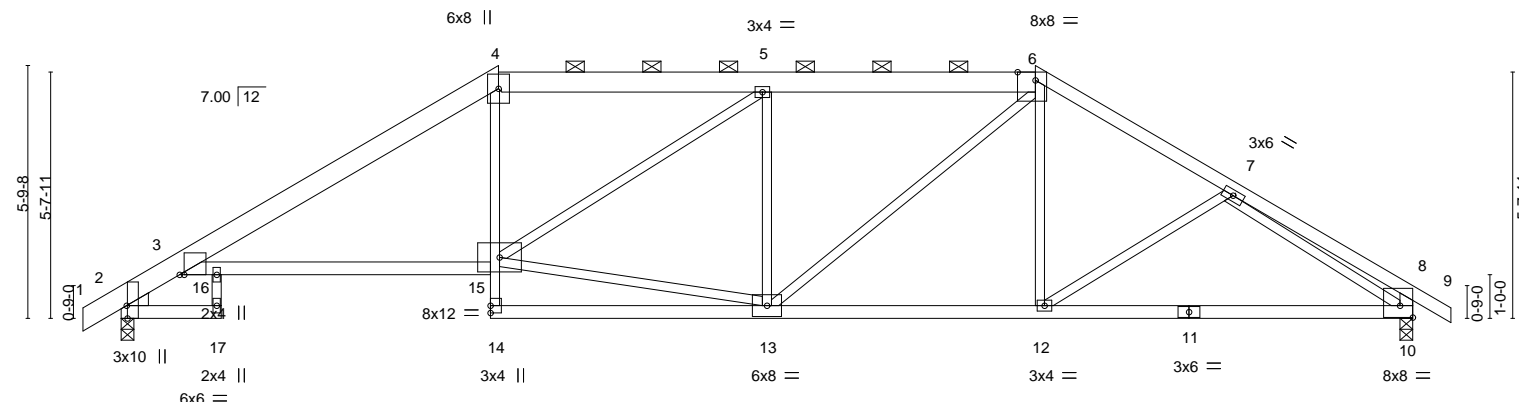
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:56 2021 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-hgJBEXDFp2XVvXV_hBLLPEBY0Wok5_H?y_RUsLzqUqX

-0-10-8	2-3-8	8-7-11	14-9-8	20-11-5	25-4-6	29-7-0	30-5-8
0-10-8	2-3-8	6-4-3	6-1-13	6-1-13	4-5-2	4-2-10	0-10-8

Scale = 1:52.8



2-3-8	8-5-8	14-9-8	20-11-5	29-7-0
2-3-8	6-2-0	6-4-0	6-1-13	8-7-11

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-1-4,0-0-0], [6:0-4-15,Edge], [10:Edge,0-3-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.27 15-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.53 15-16	>664	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.30 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.21 15-16	>999	240	Weight: 135 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SP DSS *Except*
4-6: 2x6 SPF No.2, 6-9: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-15: 2x4 SPF 2100F 1.8E, 4-14: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
8-10: 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=156(LC 7)
Max Uplift 2=131(LC 8), 10=131(LC 9)
Max Grav 2=1390(LC 1), 10=1390(LC 1)

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

TOP CHORD 2-3=-876/97, 3-4=-2344/196, 4-5=-1981/207, 5-6=-1875/177, 6-7=-1808/142, 7-8=-552/61, 8-10=-468/99
BOT CHORD 3-16=-227/2017, 15-16=-228/2021, 4-15=-28/563, 12-13=-51/1508, 10-12=-95/1579
WEBS 13-15=-191/1891, 5-13=-579/232, 6-13=-184/582, 6-12=0/295, 7-10=-1441/135

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) 2=131, 10=131.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597115
210302	D3	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:57 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-AttZRtEtaMfMXg4AEvsayRjiww7jqXg8BeA1PnzqUqW

0-10-8	4-10-0	10-11-2	18-7-14	24-9-0	29-7-0	30-5-8
0-10-8	4-10-0	6-1-2	7-8-11	6-1-2	4-10-0	0-10-8

Scale = 1:51.9

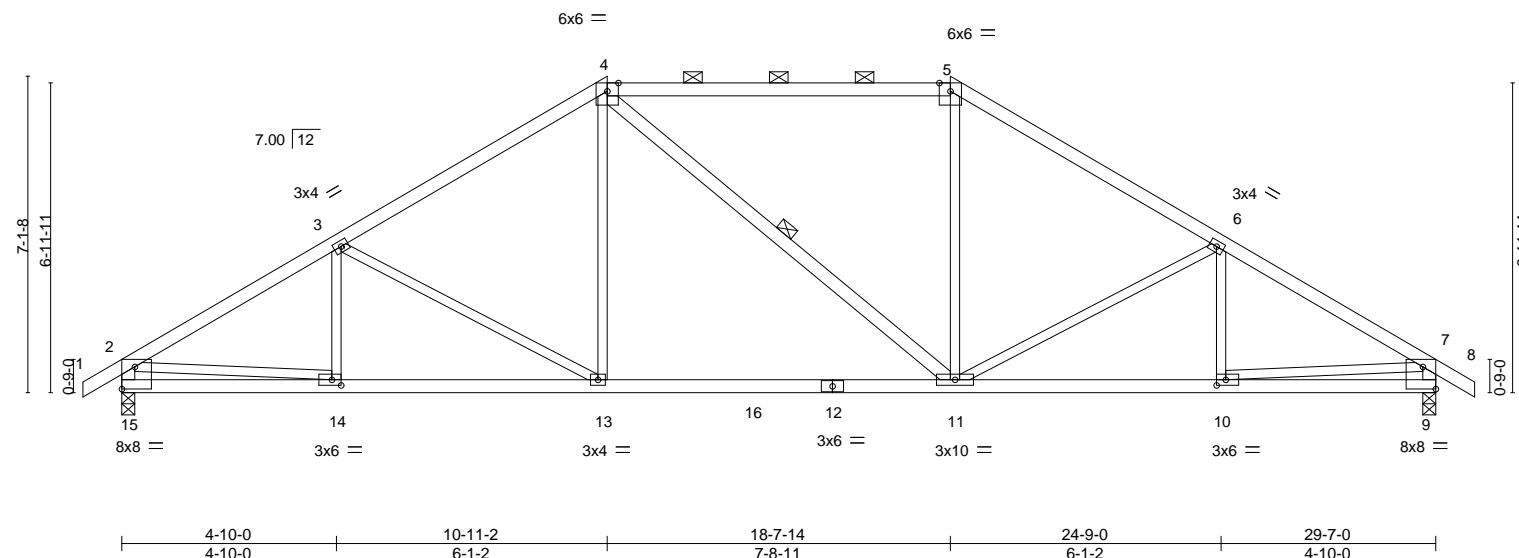


Plate Offsets (X,Y)--		[9:Edge,0-6-0], [10:0-2-8,0-1-8], [14:0-2-8,0-1-8], [15:Edge,0-6-0]					
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc) l/defl L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.16 11-13 >999 360
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.29 11-13 >999 240
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.06 9 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05 13-14 >999 240
						PLATES	GRIP
						MT20	197/144
						Weight: 120 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
4-11,2-15,7-9: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-13 oc purlins, except end verticals, and 2-0-0 oc purlins (4-10-14 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-11

REACTIONS.

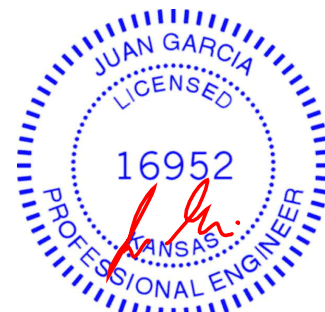
(size) 15=0-3-8, 9=0-3-8
Max Horz 15=198(LC 7)
Max Uplift 15=153(LC 8), 9=153(LC 9)
Max Grav 15=1443(LC 2), 9=1435(LC 2)

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

TOP CHORD 2-3=2063/199, 3-4=1774/172, 4-5=1445/200, 5-6=1758/172, 6-7=2051/199,
2-15=1352/177, 7-9=1345/177
BOT CHORD 14-15=174/476, 13-14=201/1798, 11-13=83/1458, 10-11=99/1712, 9-10=43/343
WEBS 3-13=409/190, 4-13=3/505, 5-11=0/466, 6-11=412/190, 2-14=64/1386,
7-10=56/1378

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=153, 9=153.
- This truss 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 Reference (optional)

16023 Swingley Ridge Rd
Chesterfield, MO 63017

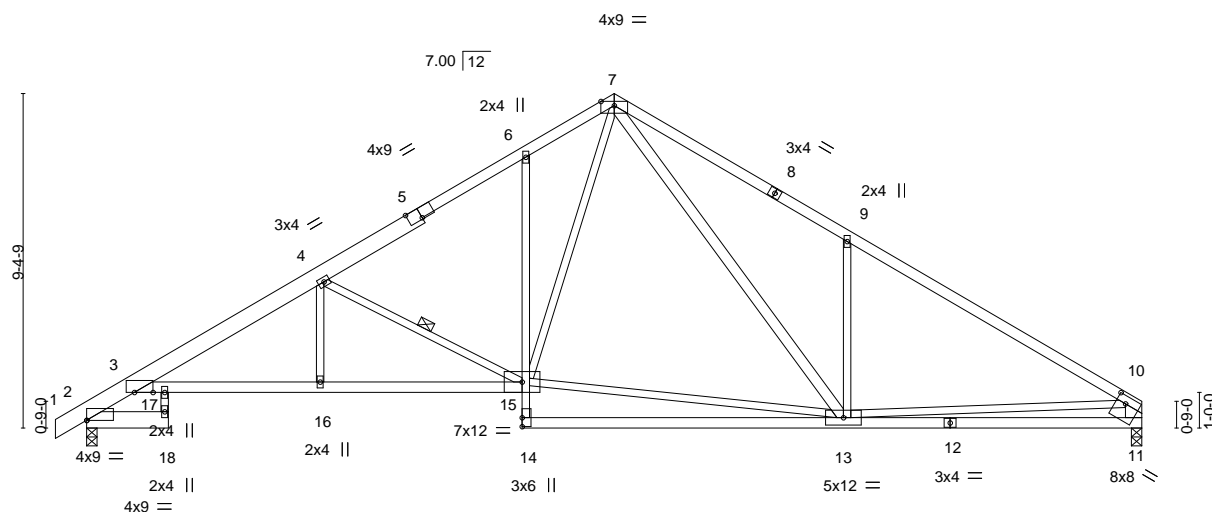
Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597117
210302	D5	Roof Special	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:47:59 2021 Page 1

ID:2ncXplsXOfbjIB6i7Q?gPMzrYWU-6F?KsZF86zw4m_EZMKu21sp4kkryIOBReyf8TfzqUqU

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



Scale: 3/16"=1'

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

Plate Offsets (X,Y)-- [2:0-0-0,0-0-1], [3:0-6-4,0-0-0], [5:0-4-8,Edge], [11:0-3-4,0-2-8]

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 0.54	Vert(LL)	-0.18 13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.42 13-14	>844	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.19 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.14 16-17	>999	240	Weight: 142 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x6 SP 2400F 2.0E, 8-10: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-18: 2x6 SPF No.2, 3-15: 2x4 SPF 2100F 1.8E, 6-14: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
7-13: 2x4 SPF No.2, 10-11: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-15

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
Max Horz 2=248(LC 7)
Max Uplift 2=181(LC 8), 11=156(LC 9)
Max Grav 2=1387(LC 1), 11=1313(LC 1)

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

TOP CHORD 2-3=-892/166, 3-4=-2567/333, 4-6=-1784/254, 6-7=-1652/347, 7-9=-1914/428, 9-10=-1930/221, 10-11=-1238/198
BOT CHORD 3-17=-363/2248, 16-17=-363/2248, 15-16=-363/2249, 11-13=-150/538
WEBS 4-16=0/315, 4-15=-982/287, 13-15=-56/1029, 7-15=-233/922, 7-13=-302/762, 9-13=-585/352, 10-13=-29/1017

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=181, 11=156.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 29, 2021

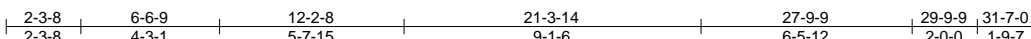
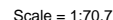
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:00 2021 Page 1
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LUMBER-

TOP CHORD	2x4 SPF No.2 *Except*
	5-7: 2x6 SPF No.2, 1-5: 2x8 SP DSS
BOT CHORD	2x4 SPF No.2 *Except*
	6-18: 2x3 SPF No.2, 16-18: 2x4 SPF 2100F 1.8E
WEBS	2x3 SPF No.2 *Except*
	7-17,11-13: 2x4 SPF No.2

BRACING-	
TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-8-6 max.): 9-10.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 4-19, 9-17

REACTIONS. (size) 2=0-3-8, 13=0-3-8
 Max Horz 2=252(LC 28)
 Max Uplift 2=-179(LC 8), 13=-213(LC 9)
 Max Grav 2=1493(LC 1), 13=1476(LC 1)

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

TOP CHORD 2-3=-887/192, 3-4=-275/135, 4-6=-2004/263, 6-7=-1864/359, 7-8=-2303/462, 8-9=-2294/277, 9-10=-1524/224, 10-11=-1754/239, 11-13=-1431/222

BOT CHORD 3-20=-364/2481, 19-20=-362/2481, 15-17=-360/3028, 14-15=-355/3030

WEBS 4-19=-1019/281, 17-19=-62/1217, 7-19=-230/965, 7-17=-326/1019, 8-17=-518/308, 9-17=-1154/264, 9-14=-1916/246, 10-14=-139/814, 11-14=-157/1379

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=179, 13=213.
- 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) 131 lb down and 68 lb up at 29-9-9 on top chord, and 12 lb down and 10 lb up at 29-8-13 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



January 29, 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.

WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 3f, 9f, 10f, 11f, 12f, 13f, 14f, 15f, 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	E1	Roof Special Girder	1	1	I44597118
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:00 2021 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-7=-70, 7-9=-70, 9-10=-70, 10-11=-70, 11-12=-70, 2-21=-20, 3-19=-20, 13-18=-20
- Concentrated Loads (lb)
 - Vert: 14=4(F)

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

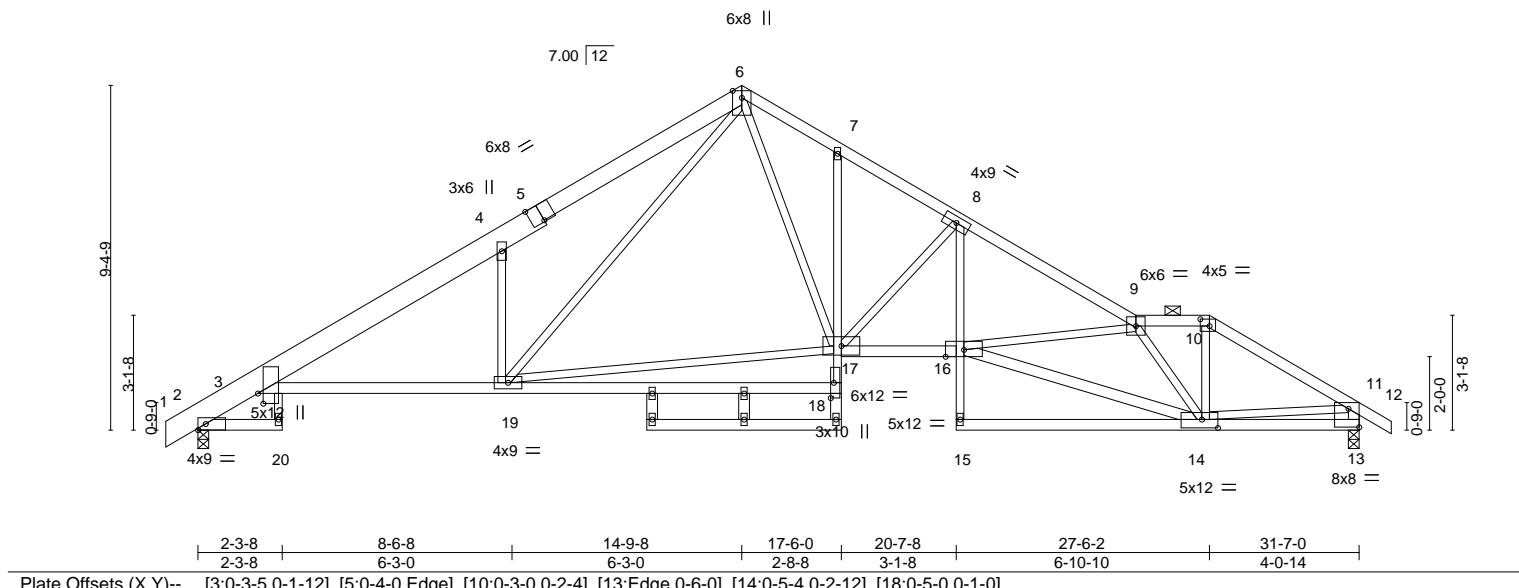
Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597119
210302	E2	Roof Special	1	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:01 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-2e64HFHOdbAo0lNyTkW6HuPmXUjmE2k6G8FYzqUqS

Scale = 1:62.7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.24 18-19 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.57 18-19 >661 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.33 13 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.16 3-19 >999 240				
								Weight: 174 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2, 1-5: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
7-18,8-15: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
14-16,11-13,21-23,18-22,24-25: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-5-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-10 max.): 9-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-20.

REACTIONS.

(size) 2=0-3-8, 13=0-3-8
Max Horz 2=252(LC 7)
Max Uplift 2=178(LC 8), 13=203(LC 9)
Max Grav 2=1493(LC 1), 13=1480(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-886/191, 3-4=-2524/283, 4-6=-2689/508, 6-7=-2263/336, 7-8=-2342/272, 8-9=-3378/341, 9-10=-1866/260, 10-11=-2103/256, 11-13=-1430/218
BOT CHORD 3-19=-287/2216, 16-17=-120/2877, 8-16=-68/1179, 13-14=-87/343
WEBS 4-19=-880/395, 6-19=-348/1148, 6-17=-209/1339, 8-17=-1347/238, 14-16=-301/3023, 9-14=-2152/268, 10-14=-51/855, 11-14=-58/1407, 17-19=-81/1358

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=178, 13=203.
- 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.



January 29,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597120
210302	E3	Roof Special	1	1		

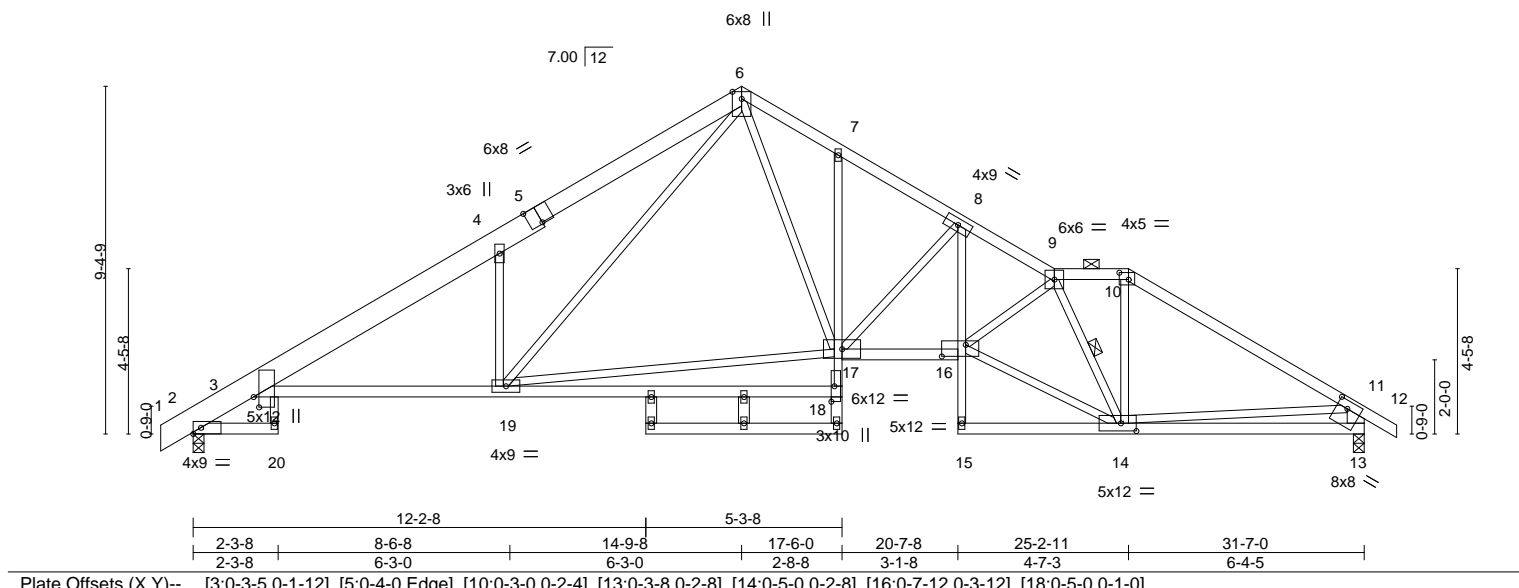
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:03 2021 Page 1

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0-10-8 2-3-8 8-3-2 14-9-8 17-6-0 20-7-8 23-2-11 25-2-11 31-7-0 32-5-8
0-10-8 2-3-8 5-11-10 6-6-6 2-8-8 3-1-8 2-7-3 2-0-0 6-4-5 0-10-8

Scale = 1:62.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.24 18-19	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.57 18-19	>661	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	0.34 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.16 3-19	>999	240	Weight: 173 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2, 1-5: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
7-18,8-15: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
11-13: 2x6 SPF No.2, 21-23,18-22,24-25: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 13=0-3-8
Max Horz 2=253(LC 7)
Max Uplift 2=177(LC 8), 13=204(LC 9)
Max Grav 2=1489(LC 1), 13=1483(LC 1)

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

TOP CHORD 2-3=-884/190, 3-4=-2516/283, 4-6=-2681/507, 6-7=-2265/339, 7-8=-2320/268, 8-9=-3343/345, 9-10=-1734/273, 10-11=-2083/260, 11-13=-1413/241
BOT CHORD 3-19=-285/2208, 16-17=-113/2893, 8-16=-103/1290, 13-14=-192/581
WEBS 4-19=-880/395, 6-19=-348/1149, 6-17=-213/1335, 8-17=-1378/221, 14-16=-189/2831, 9-16=-6/418, 9-14=-2136/154, 10-14=-13/671, 11-14=0/1112, 17-19=-80/1349

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=177, 13=204.
- This truss 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.



January 29,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Scale = 1:62.7

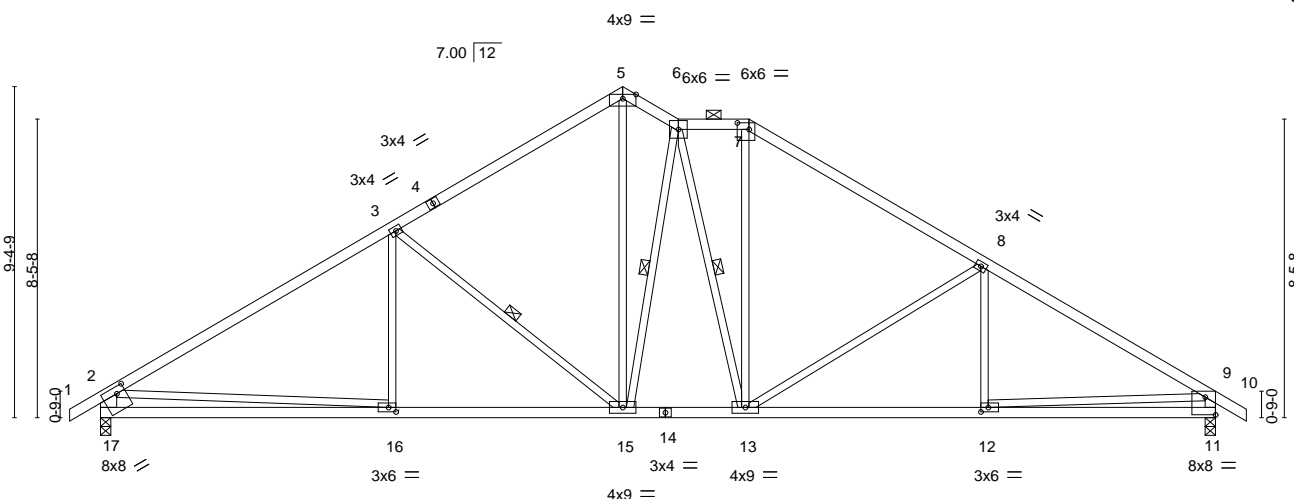
Job 210302	Truss E6	Truss Type Roof Special	Qty 1	Ply 1	Lot 80 RR 144597123
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:06 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-PbwzKyLXS7o463GvGIWhpLbCHYE5RW2TGys0DmzqUqN
 -0-10-8 8-3-2 14-9-8 16-4-7 18-4-7 25-0-8 31-7-0 32-5-8
 0-10-8 8-3-2 6-6-6 1-6-15 2-0-0 6-8-1 6-6-8 0-10-8

Scale = 1:65.3



	8-3-2	14-9-8	18-4-7	25-0-8	31-7-0
	8-3-2	6-6-6	3-6-15	6-8-1	6-6-8
Plate Offsets (X,Y)--	[7:0-4-0,0-2-4], [11:Edge,0-6-0], [12:0-2-8,0-1-8], [16:0-2-8,0-1-8], [17:0-3-0,0-2-4]				

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.11 16-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.24 16-17	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.06 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 12-13	>999	240	Weight: 139 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-17: 2x6 SPF No.2, 9-11: 2x4 SPF 2400F 2.0E

BRACING-

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

REACTIONS.

(size) 17=0-3-8, 11=0-3-8
 Max Horz 17=-260(LC 6)
 Max Uplift 17=-187(LC 8), 11=-203(LC 9)
 Max Grav 17=1482(LC 1), 11=1476(LC 1)

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

TOP CHORD 2-3=-2075/233, 3-5=-1540/272, 5-6=-1367/266, 6-7=-1327/280, 7-8=-1659/261,
 8-9=-2135/276, 2-17=-1404/233, 9-11=-1411/236
 BOT CHORD 16-17=-389/936, 15-16=-214/1666, 13-15=-34/1328, 12-13=-137/1748, 11-12=-146/536
 WEBS 3-16=0/275, 3-15=-614/235, 5-15=-182/1028, 6-15=-634/205, 7-13=-33/386,
 8-13=-543/215, 2-16=0/896, 9-12=-10/1216

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) 17=187, 11=203.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 29, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597124
210302	E7	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:07 2021 Page 1

ID:2ncXplsxOfbjIB6I7Q?gPMzrYWU-toULXIM9DRwxkDr5g?1wMY8OQyYcA_gcUCbZICzqUqM

0-10-8 8-3-2 15-6-0 16-1-0 23-3-14 31-7-0 32-5-8
0-10-8 8-3-2 7-2-15 0-7-0 7-2-15 8-3-2 0-10-8

Scale = 1:59.2

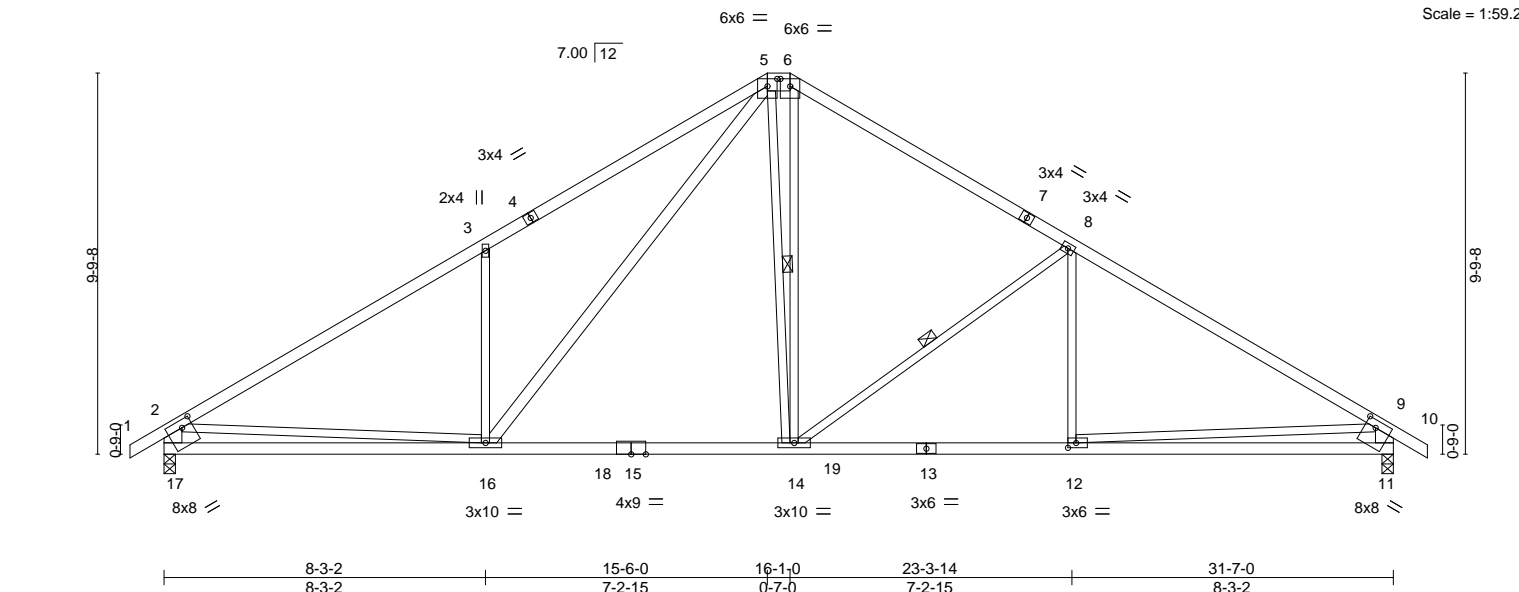


Plate Offsets (X,Y)--											[5:0-3-0,0-2-5], [6:0-3-0,0-2-5], [11:0-3-4,0-2-4], [12:0-2-8,0-1-8], [17:0-3-4,0-2-4]										
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP			
TCLL	25.0	Plate Grip DOL		1.15		TC	0.75	Vert(LL)	-0.20	14-16	>999		360		MT20		197/144				
TCDL	10.0	Lumber DOL		1.15		BC	0.75	Vert(CT)	-0.32	14-16	>999		240								
BCLL	0.0 *	Rep Stress Incr		YES		WB	0.83	Horz(CT)	0.06	11	n/a		n/a								
BCDL	10.0	Code IRC2018/TPI2014				Matrix-S		Wind(LL)	0.06	16	>999		240		Weight: 138 lb		FT = 10%				

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
5-16: 2x4 SPF No.2, 2-17,9-11: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 17=0-3-8, 11=0-3-8
Max Horz 17=-271(LC 6)
Max Uplift 17=-191(LC 8), 11=-191(LC 9)
Max Grav 17=1609(LC 15), 11=1600(LC 16)

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

TOP CHORD 2-3=-2231/240, 3-5=-2290/461, 5-6=-1285/258, 6-8=-1605/253, 8-9=-2201/244,
2-17=-1483/235, 9-11=-1463/237
BOT CHORD 16-17=-389/1012, 14-16=-29/1354, 12-14=-81/1770, 11-12=-246/843
WEBS 3-16=-579/351, 5-16=-327/1042, 5-14=-202/417, 6-14=-123/581, 8-14=-726/251,
8-12=0/268, 2-16=0/1120, 9-12=0/1088

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) 17=191, 11=191.
- This truss 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.



January 29,2021

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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 210302	Truss E8	Truss Type Common	Qty 1	Ply 1	Lot 80 RR 144597125
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Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-L_2jleMn_k2oLNQlOjY9umhZKMt3vUHmjsL7leZqUqL

0-10-8 8-3-2 15-9-8 23-3-14 31-7-0 32-5-8
0-10-8 8-3-2 7-6-6 7-6-6 8-3-2 0-10-8

Scale = 1:63.2

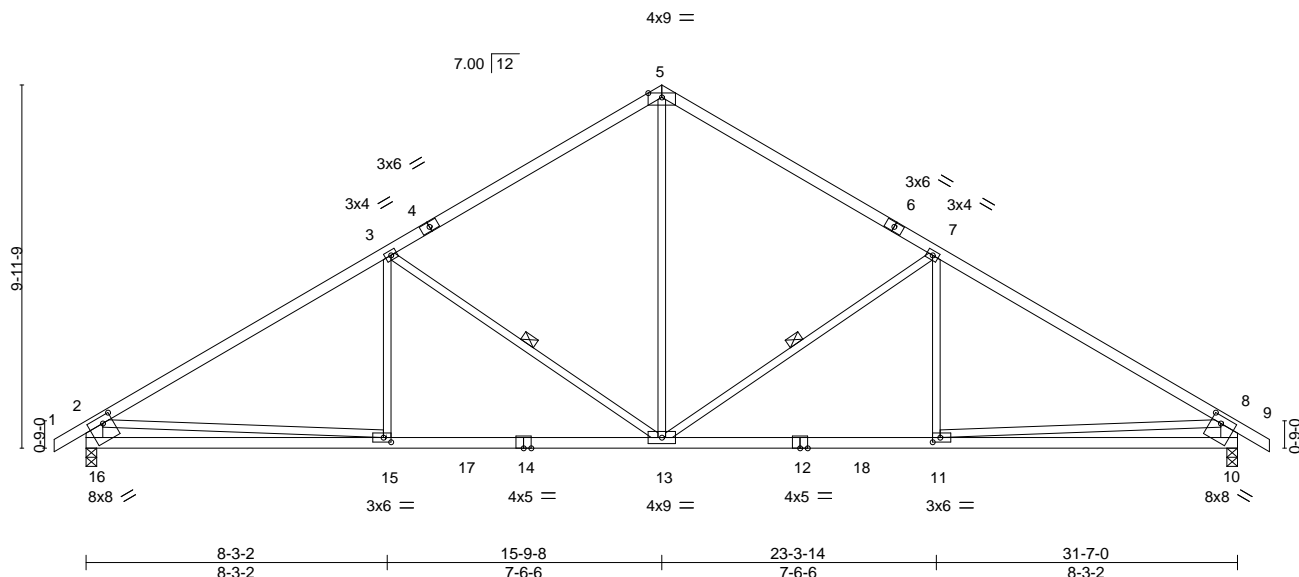


Plate Offsets (X,Y)-- [10:0-3-4,0-2-4], [11:0-2-8,0-1-8], [15:0-2-8,0-1-8], [16:0-3-4,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.74	Vert(LL)	-0.14 13-15 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.24 13-15 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.06 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 13-15 >999 240	Weight: 125 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-16,8-10: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-5-14 oc bracing.
WEBS 1 Row at midpt 7-13, 3-13

REACTIONS.

(size) 16=0-3-8, 10=0-3-8
Max Horz 16=-276(LC 6)
Max Uplift 16=-192(LC 8), 10=-192(LC 9)
Max Grav 16=1608(LC 15), 10=1608(LC 16)

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

TOP CHORD 2-3=-2226/247, 3-5=-1574/262, 5-7=-1574/262, 7-8=-2226/247, 2-16=-1477/238, 8-10=-1477/237
BOT CHORD 15-16=-377/1006, 13-15=-238/1988, 11-13=-86/1795, 10-11=-237/816
WEBS 5-13=-94/1046, 7-13=-798/261, 7-11=0/312, 3-13=-799/262, 3-15=0/312, 2-15=0/1111, 8-11=0/1128

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=192, 10=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.



January 29,2021

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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 80 RR	I44597126
210302	E9	Roof Special	5	1		

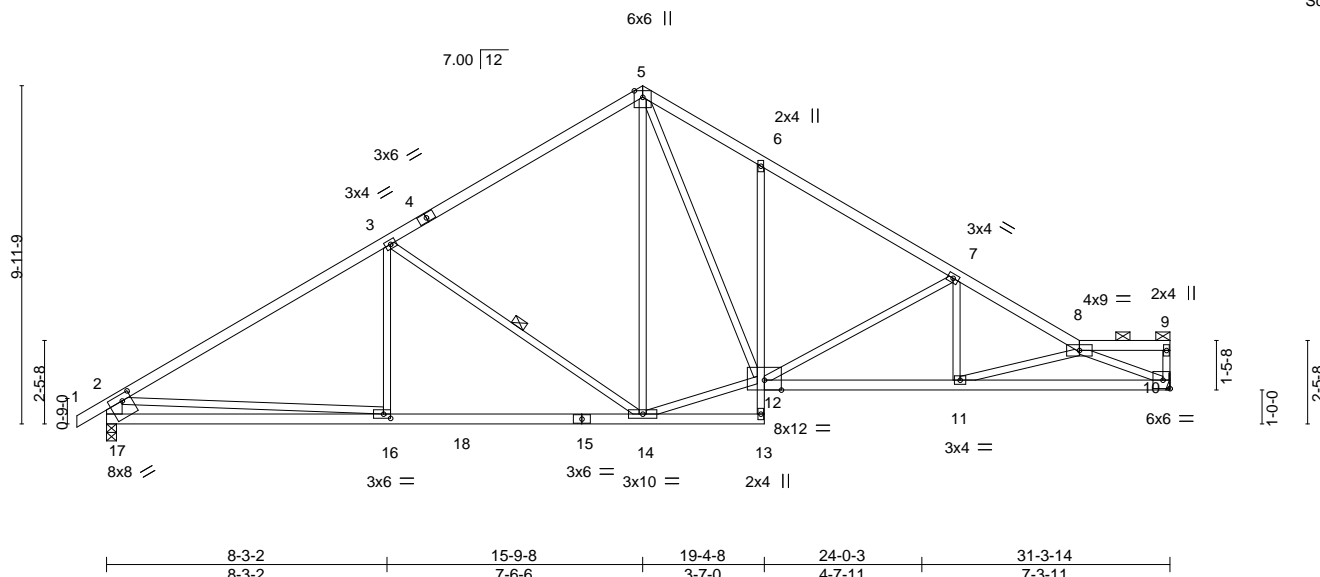
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:09 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-pAb6y_NPl2AfzW_UxQ4ORzDk9mBVetXvyW4gq4zqUqK

0-10-8	8-3-2	15-9-8	19-4-8	25-0-7	28-7-14	31-3-14
0-10-8	8-3-2	7-6-6	3-7-0	5-7-15	3-7-7	2-8-0

Scale = 1:67.9



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 0.74	Vert(LL)	-0.17 11-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.31 11-12	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.10 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07 11-12	>999	240	Weight: 133 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 6-13: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-17: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-9.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-14.
 WEBS 1 Row at midpt 3-14

REACTIONS.

(size) 10=Mechanical, 17=0-3-8
 Max Horz 17=222(LC 5)
 Max Uplift 10=14(LC 9), 17=24(LC 8)
 Max Grav 10=1450(LC 14), 17=1591(LC 13)

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

TOP CHORD 2-3=2208/39, 3-5=1542/91, 5-6=1984/135, 6-7=2008/52, 7-8=2708/20, 2-17=1461/69
 BOT CHORD 16-17=221/935, 14-16=54/1923, 6-12=340/128, 11-12=0/2301, 10-11=52/2859
 WEBS 3-16=0/322, 3-14=793/128, 5-14=18/348, 12-14=0/1313, 5-12=99/1241, 7-12=814/75, 7-11=0/410, 8-11=594/61, 8-10=3066/64, 2-16=0/1098

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 17.
- This truss 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.



January 29, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597127
210302	G1	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:10 2021 Page 1

ID:2ncXplsXOfbjlB6i7Q?gPMzrYWU-HN9UAKO1WMIWbgZgV7bd_BmvfAbnNQ83AAQDMXzqUqJ

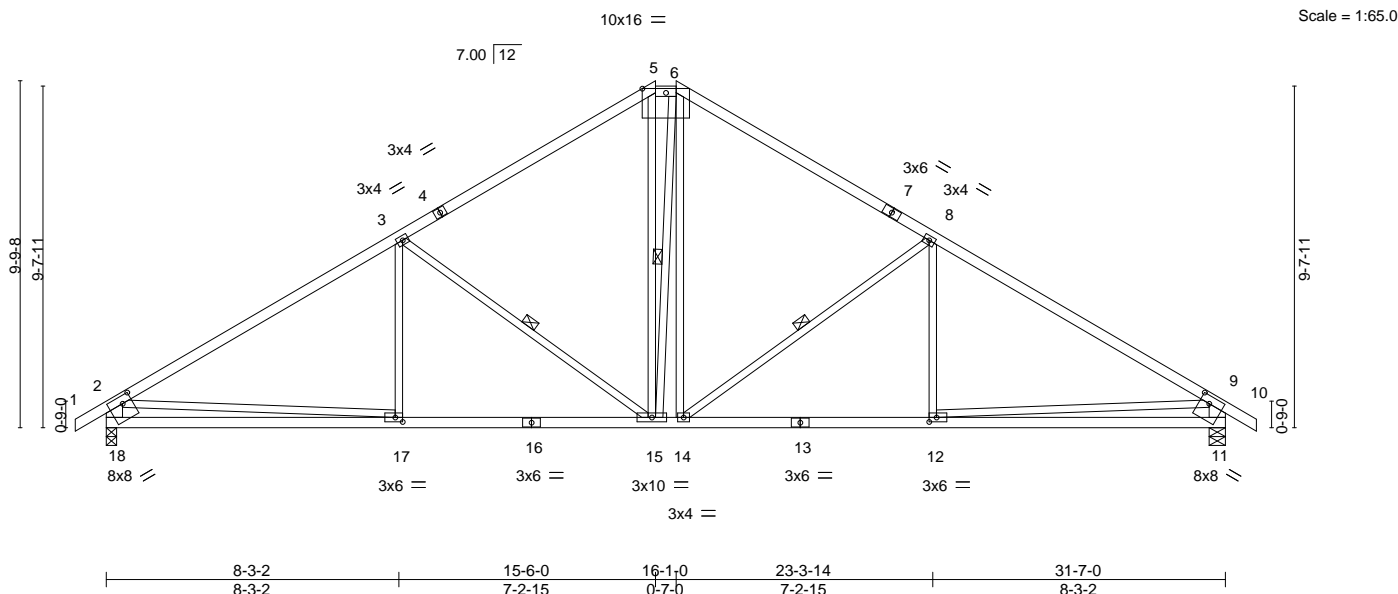


Plate Offsets (X,Y)--										[5:0-8-0,0-1-7], [11:0-3-4,0-2-8], [12:0-2-8,0-1-8], [17:0-2-8,0-1-8], [18:0-3-4,0-2-8]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC	0.75	Vert(LL)	-0.11	17-18	>999		360		MT20		197/144		
TCDL	10.0	Lumber DOL		1.15		BC	0.60	Vert(CT)	-0.23	17-18	>999		240						
BCLL	0.0 *	Rep Stress Incr		YES		WB	0.46	Horz(CT)	0.06	11	n/a		n/a						
BCDL	10.0	Code IRC2018/TPI2014				Matrix-S		Wind(LL)	0.07	12-14	>999		240		Weight: 139 lb		FT = 10%		

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-0-9 oc purlins, except end verticals, and 2-0-0 oc purlins (4-11-9 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 9-5-0 oc bracing.
WEBS 1 Row at midpt 3-15, 6-15, 8-14

REACTIONS.

(size) 18=0-3-8, 11=0-5-8
Max Horz 18=-271(LC 6)
Max Uplift 18=-191(LC 8), 11=-191(LC 9)
Max Grav 18=1478(LC 1), 11=1478(LC 1)

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

TOP CHORD 2-3=-2072/244, 3-5=-1507/255, 5-6=-1180/251, 6-8=-1504/254, 8-9=-2075/244,
2-18=-1399/237, 9-11=-1401/237
BOT CHORD 17-18=-382/921, 15-17=-229/1665, 14-15=-20/1179, 12-14=-82/1668, 11-12=-247/745
WEBS 3-17=0/275, 3-15=-640/249, 5-15=-151/572, 6-15=-276/262, 6-14=-75/381,
8-14=-642/248, 8-12=0/282, 2-17=0/916, 9-12=0/925

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) 18=191, 11=191.
- This truss 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.



January 29,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

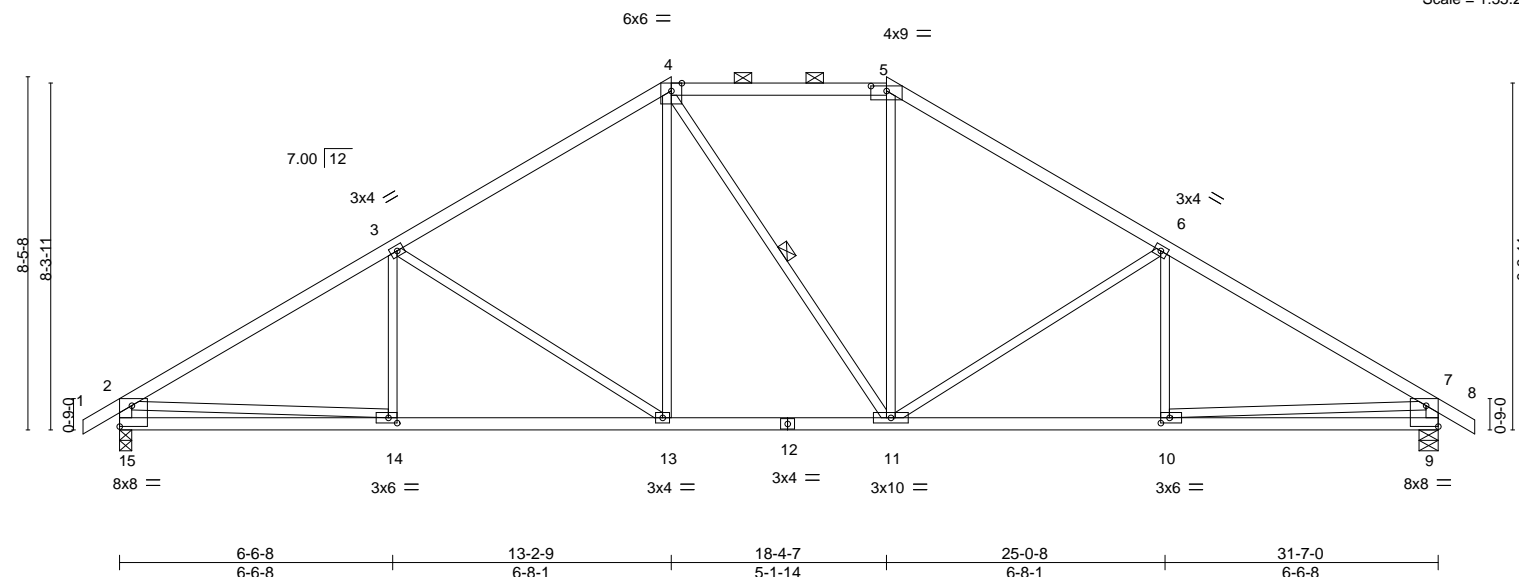
Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597128
210302	G2	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:11 2021 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-IzjsNgPIhfQNCq8t3r6sWOJ6dZxf6ITCPqZnuzzqUql

0-10-8 6-6-8 13-2-9 18-4-7 25-0-8 31-7-0 32-5-8
0-10-8 6-6-8 6-8-1 5-1-14 6-8-1 6-6-8 0-10-8

Scale = 1:55.2



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.11 13-14 >999 360	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.22 13-14 >999 240				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.06 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.06 13-14 >999 240				
								Weight: 129 lb		FT = 10%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-8-2 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=233(LC 7)
Max Uplift 15=175(LC 8), 9=175(LC 9)
Max Grav 15=1550(LC 15), 9=1547(LC 16)

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

TOP CHORD 2-3=-2219/228, 3-4=-1751/209, 4-5=-1418/234, 5-6=-1745/209, 6-7=-2213/228,
2-15=-1442/209, 7-9=-1438/209
BOT CHORD 14-15=-250/734, 13-14=-222/1964, 11-13=-37/1450, 10-11=-96/1831, 9-10=-134/575
WEBS 3-13=-603/219, 4-13=-50/568, 5-11=-30/533, 6-11=-603/219, 2-14=0/1306, 7-10=0/1301

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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=175, 9=175.
- 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.



January 29,2021

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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 80 RR	144597129
210302	G3	Hip	1	1		

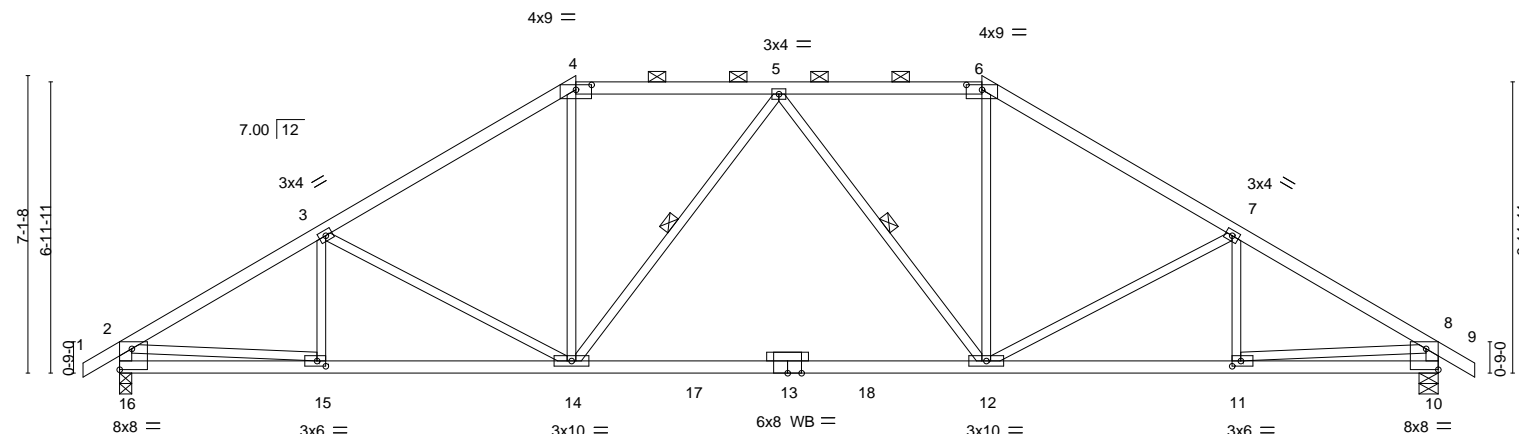
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:12 2021 Page 1

ID:2ncXplsxOfbjB6l7Q?gPMzrYWU-DIHEb0Ql2zYEq_j3dYd53crHDzHXrJwLeUJKRPzqUqH

-0-10-8	4-10-0	10-11-2	15-9-8	20-7-14	26-9-0	31-7-0	32-5-8
0-10-8	4-10-0	6-1-2	4-10-6	4-10-6	6-1-2	4-10-0	0-10-8

Scale = 1:55.2



	4-10-0	10-11-2	20-7-14	26-9-0	31-7-0	
	4-10-0	6-1-2	9-8-11	6-1-2	4-10-0	

Plate Offsets (X,Y)-- [4:0-4-8,0-1-7], [6:0-4-8,0-1-7], [10:Edge,0-6-0], [11:0-2-8,0-1-8], [15:0-2-8,0-1-8], [16:Edge,0-6-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.31 12-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.53 12-14	>713	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.05 14	>999	240	Weight: 127 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
2-16,8-10: 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-1-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-9 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-14, 5-12

REACTIONS. (size) 16=0-3-8, 10=0-5-8
Max Horz 16=198(LC 7)
Max Uplift 16=155(LC 8), 10=155(LC 9)
Max Grav 16=1537(LC 2), 10=1537(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=2210/206, 3-4=1962/171, 4-5=1615/198, 5-6=1615/198, 6-7=1962/171,
7-8=2210/206, 2-16=1433/181, 8-10=1433/180
BOT CHORD 15-16=170/520, 14-15=208/1898, 12-14=117/1736, 11-12=105/1851, 10-11=42/387
WEBS 3-14=371/199, 4-14=0/648, 5-14=372/192, 5-12=372/192, 6-12=0/648, 7-12=371/199,
2-15=71/1474, 8-11=64/1474

- 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) 16=155, 10=155.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 29,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597130
210302	G4	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:13 2021 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-iyrcOLQwpHg5S8lFAG8KbpOOGNcgafHVt82uzsqUqG

-0-10-8	4-2-10	8-7-11	15-9-8	22-11-5	27-4-6	31-7-0	32-5-8
0-10-8	4-2-10	4-5-2	7-1-13	7-1-13	4-5-2	4-2-10	0-10-8

Scale = 1:56.1

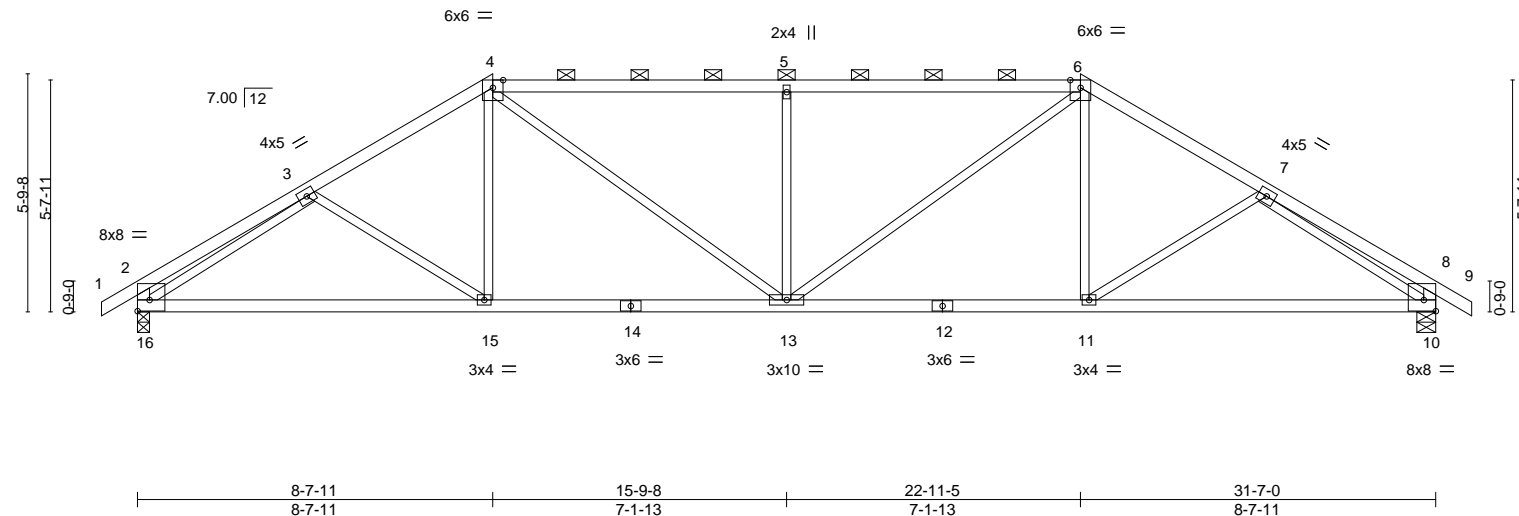


Plate Offsets (X,Y)-- [2:Edge,0-3-4], [10:Edge,0-3-4]		8-7-11 8-7-11		15-9-8 7-1-13		22-11-5 7-1-13		31-7-0 8-7-11	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.86	Vert(LL)	-0.13 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.27 10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.95	Horz(CT)	0.09 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08 13	>999	240	Weight: 121 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-16,8-10: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 16=0-3-8, 10=0-5-8
Max Horz 16=163(LC 7)
Max Uplift 16=-132(LC 8), 10=-132(LC 9)
Max Grav 16=1480(LC 1), 10=1480(LC 1)

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

TOP CHORD 2-3=-578/63, 3-4=-1969/176, 4-5=-2136/226, 5-6=-2136/226, 6-7=-1969/176, 7-8=-578/63, 2-16=-486/100, 8-10=-486/100
BOT CHORD 15-16=-237/1702, 13-15=-191/1644, 11-13=-77/1644, 10-11=-96/1702
WEBS 4-15=0/313, 4-13=-209/711, 5-13=-610/245, 6-13=-209/711, 6-11=0/313, 3-16=-1567/140, 7-10=-1567/141

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 16=132, 10=132.
- This truss 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.



January 29,2021

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



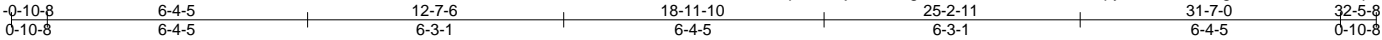
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597131
210302	G5	Hip Girder	1	1		
Job Reference (optional)						

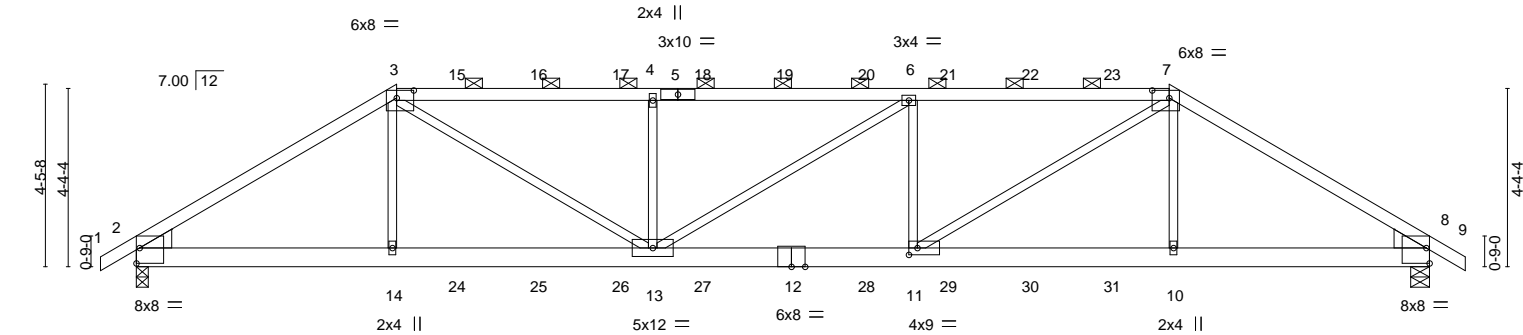
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:14 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-A8P_?hRYaapy3ltRkzfZ81xYgnvfJ9Be5ooRVlzqUqF



Scale = 1:56.3



	6-4-5	12-7-6	18-11-10	25-2-11	31-7-0
	6-4-5	6-3-1	6-4-5	6-3-1	6-4-5
Plate Offsets (X,Y)--	[2:Edge,0-4-8], [3:0-5-0,0-2-4], [7:0-5-0,0-2-4], [8:Edge,0-4-8], [11:0-2-8,0-2-0]				

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.94	Vert(LL)	-0.25 11-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.46 11-13	>819	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.71	Horz(CT)	0.12 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.20 11-13	>999	240	Weight: 130 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
3-5,5-7: 2x4 SPF 2400F 2.0E
BOT CHORD 2x6 SPF 1650F 1.4E
WEBS 2x3 SPF No.2
WEDGE
Left: 2x6 SPF No.2 , Right: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-1-5 oc purlins, except
2-0-0 oc purlins (2-8-6 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
8-11-7 oc bracing: 11-13.

REACTIONS.

(size) 2=0-3-8 (req. 0-3-15), 8=0-5-8
Max Horz 2=109(LC 7)
Max Uplift 2=484(LC 8), 8=487(LC 9)
Max Grav 2=2524(LC 1), 8=2537(LC 1)

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

TOP CHORD 2-3=-4194/815, 3-4=-5055/968, 4-6=-5052/967, 6-7=-5052/966, 7-8=-4170/811
BOT CHORD 2-14=-725/3422, 13-14=-722/3405, 11-13=-947/5050, 10-11=-610/3372, 8-10=-613/3389
WEBS 3-14=-128/664, 3-13=-412/2042, 4-13=-815/342, 6-11=-845/363, 7-11=-418/2076,
7-10=-127/657

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- WARNING: Required bearing size at joint(s) 2 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=484, 8=487.
- This truss 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) 125 lb down and 77 lb up at 7-9-7, 125 lb down and 77 lb up at 9-9-7, 125 lb down and 77 lb up at 11-9-7, 125 lb down and 77 lb up at 13-9-7, 125 lb down and 77 lb up at 15-9-8, 125 lb down and 77 lb up at 17-9-8, 125 lb down and 77 lb up at 19-9-8, and 125 lb down and 77 lb up at 21-9-8, and 125 lb down and 77 lb up at 23-9-8 on top chord, and 429 lb down and 221 lb up at 6-4-5, 60 lb down at 7-9-7, 60 lb down at 9-9-7, 60 lb down at 11-9-7, 60 lb down at 13-9-7, 60 lb down at 15-9-8, 60 lb down at 17-9-8, 60 lb down at 19-9-8, 60 lb down at 21-9-8, and 60 lb down at 23-9-8, and 429 lb down and 221 lb up at 25-2-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	G5	Hip Girder	1	1	I44597131
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:14 2021 Page 2
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-A8P_?hRYaapy3ltRkzfZ81xYgnvfJ9Be5ooRVlzqUqF

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: 12=-45(B) 14=-429(B) 10=-429(B) 15=-93(B) 16=-93(B) 17=-93(B) 18=-93(B) 19=-93(B) 20=-93(B) 21=-93(B) 22=-93(B) 23=-93(B) 24=-45(B) 25=-45(B) 26=-45(B) 27=-45(B) 28=-45(B) 29=-45(B) 30=-45(B) 31=-45(B)

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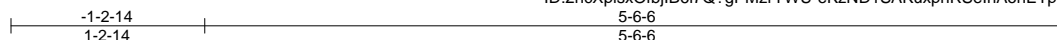
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597132
210302	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:15 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-eKzND1SAKuxphRSelHaoHETp0BME2naoKSX_1kzqUqE



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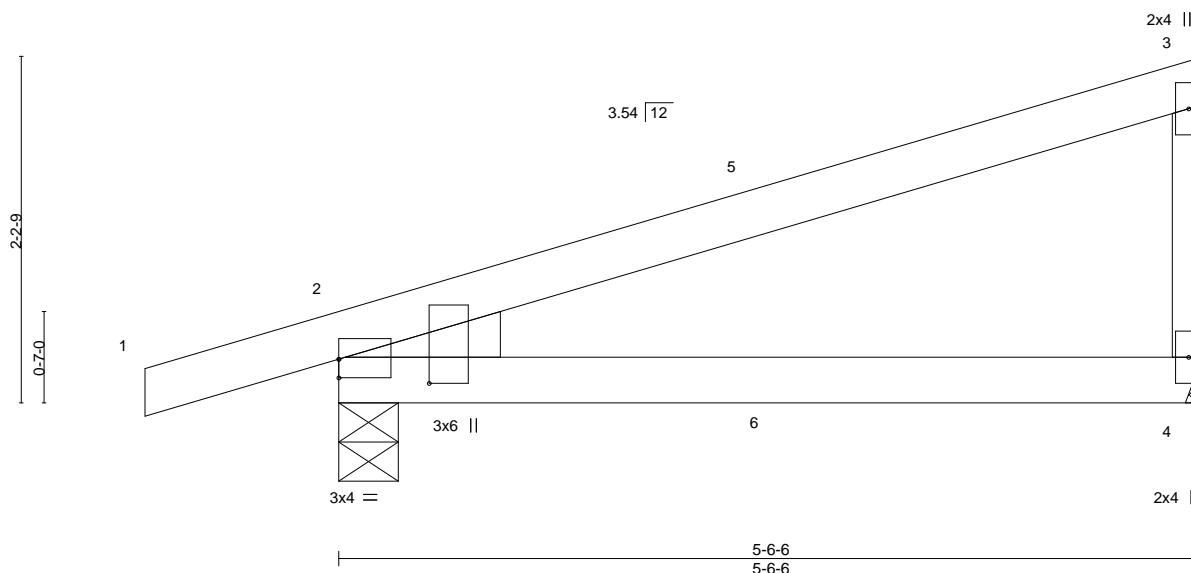


Plate Offsets (X,Y)--		[2:0-0-0,0-1-7], [2:0-1-14,0-6-15]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52
TCDL 10.0	Lumber DOL	1.15	BC 0.32
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.05 2-4 >999 360
			Vert(CT) -0.09 2-4 >696 240
			Horz(CT) -0.00 4 n/a n/a
			Wind(LL) 0.00 2 **** 240
			PLATES MT20
			GRIP 197/144
			Weight: 17 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-4-9
Max Horz 2=84(LC 5)
Max Uplift 4=47(LC 8), 2=106(LC 4)
Max Grav 4=222(LC 1), 2=349(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 except (jt=lb) 2=106.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 39 lb up at 2-9-8, and 69 lb down and 39 lb up at 2-9-8 on top chord, and 2 lb down at 2-9-8, and 2 lb down at 2-9-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



January 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597133
210302	J2	Jack-Open	3	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:25 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-LFZ9JSaR_zBOu_DZtnM94Lub4DqNOJ2Gd?yWO9zqUq4

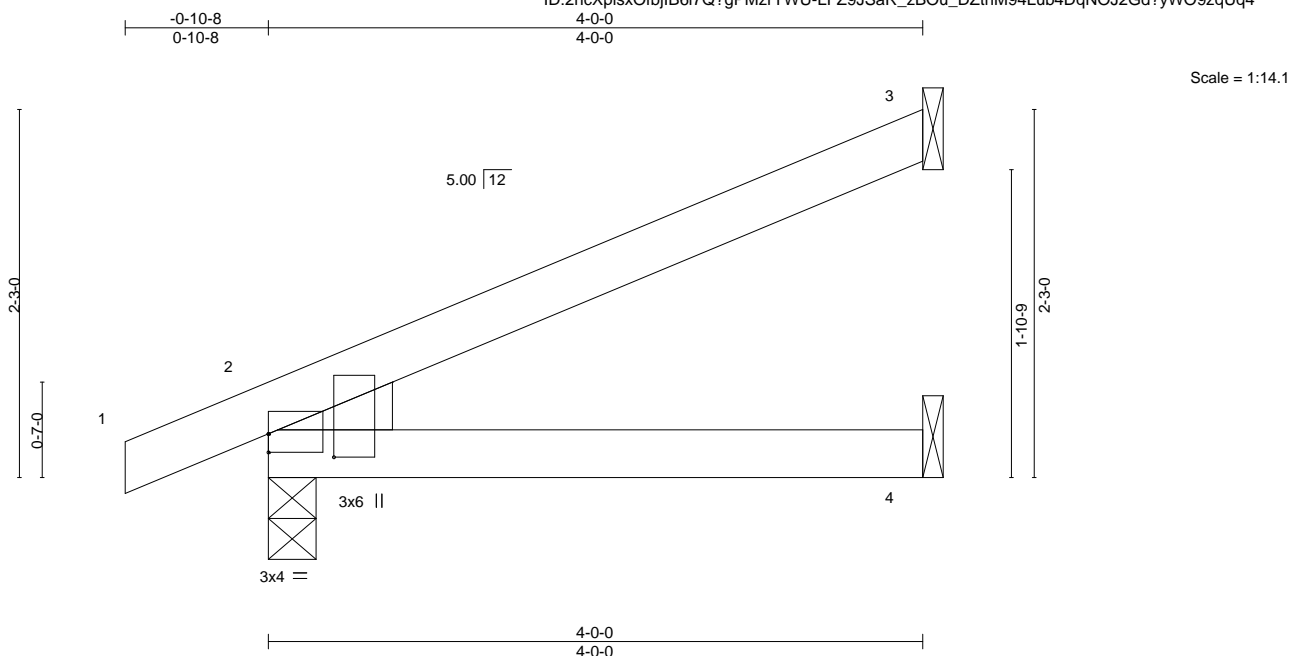


Plate Offsets (X,Y)--		[2:0-0-0,0-1-6], [2:0-1-11,0-4-13]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23
TCDL 10.0	Lumber DOL	1.15	BC 0.14
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 2-4 >999 360
			Vert(CT) -0.02 2-4 >999 240
			Horz(CT) -0.00 3 n/a n/a
			Wind(LL) 0.00 2 **** 240
			PLATES GRIP
			MT20 197/144
			Weight: 12 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 4-0-0 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=81(LC 8)

Max Uplift 3=71(LC 8), 2=39(LC 8)

Max Grav 3=123(LC 1), 2=252(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) 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.



January 29, 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



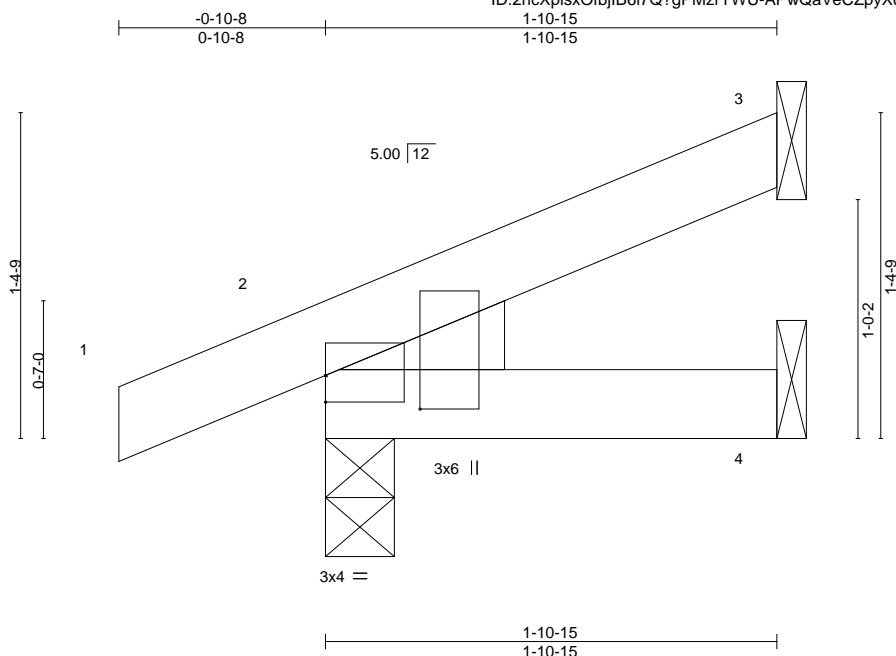
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597134
210302	J3	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:31 2021 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-APwQaVeCZpyXcvGjE2TZKc8gKdvYo0X8?xPrpzqUq_



Scale = 1:9.8

Plate Offsets (X,Y)--		[2:0-0-0,0-1-6], [2:0-1-11,0-4-13]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05
TCDL 10.0	Lumber DOL	1.15	BC 0.03
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 2 >999 360
			Vert(CT) -0.00 2-4 >999 240
			Horz(CT) -0.00 3 n/a n/a
			Wind(LL) 0.00 2 **** 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 7 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-10-15 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=47(LC 8)

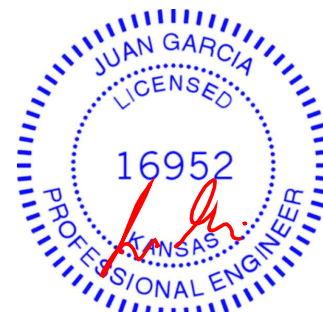
Max Uplift 3=34(LC 8), 2=31(LC 4)

Max Grav 3=50(LC 1), 2=163(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.



January 29, 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 80 RR	I44597135
210302	J4A	Jack-Closed Supported Gable	2	1	Job Reference (optional)	

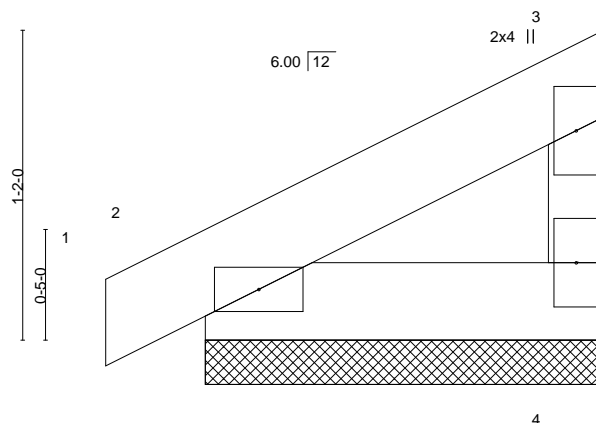
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:32 2021 Page 1

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Scale = 1:8.7



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 0.03	Vert(LL)	-0.00	1	n/r	120	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r	120	197/144
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						
								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 1-6-0 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=35(LC 5)
Max Uplift 4=15(LC 8), 2=17(LC 8)
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.



January 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597136
210302	J5A	Jack-Closed	2	1	Job Reference (optional)	

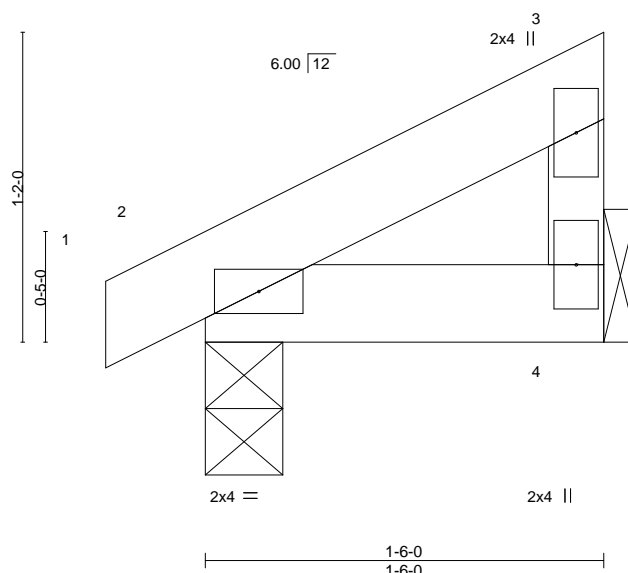
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:32 2021 Page 1

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Scale = 1:8.7



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 0.02	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	2	>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: 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 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

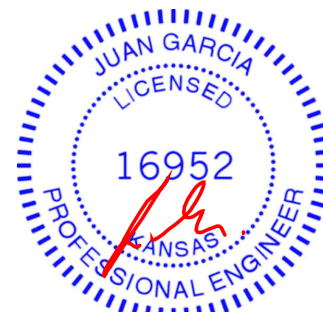
REACTIONS.

(size) 4=Mechanical, 2=0-3-8
Max Horz 2=35(LC 5)
Max Uplift 4=15(LC 8), 2=17(LC 8)
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; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (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.



January 29, 2021

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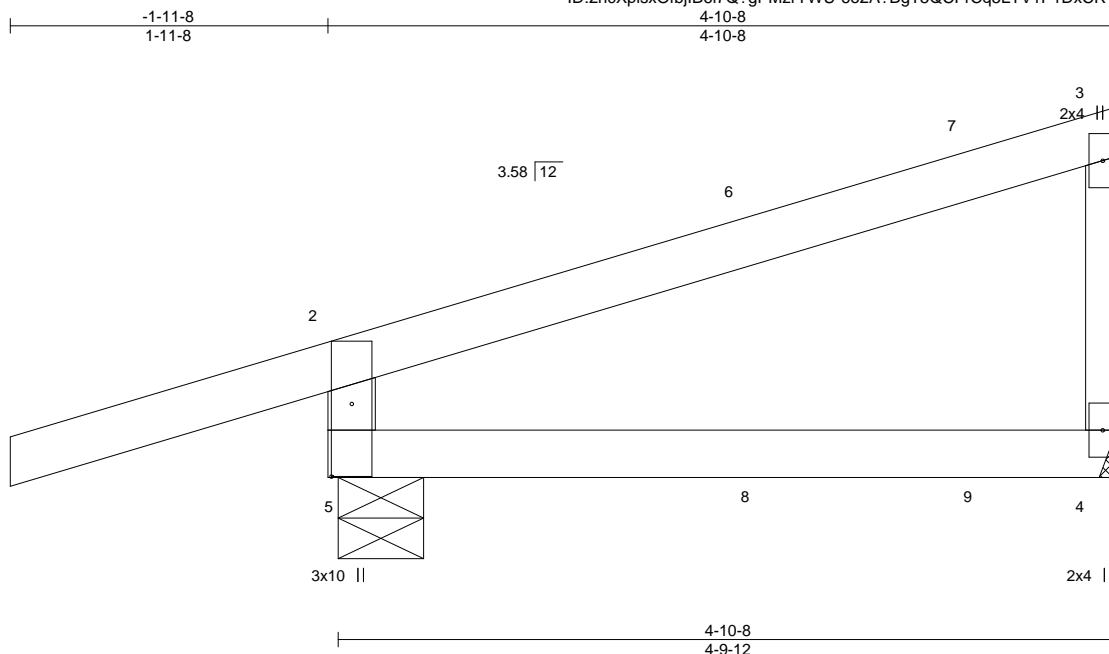


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597137
210302	J8	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:33 2021 Page 1
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Scale = 1:14.2

Plate Offsets (X,Y)--		[5:0-5-6,0-1-8]								
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.35		Vert(LL) -0.02 4-5	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.20		Vert(CT) -0.04 4-5	>999	240		
BCLL 0.0 *		Rep Stress Incr NO		WB 0.00		Horz(CT) -0.00 4	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL) 0.01 4-5	>999	240	Weight: 16 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

BRACING-

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

REACTIONS.

(size) 5=0-6-5, 4=Mechanical
Max Horz 5=96(LC 5)
Max Uplift 5=148(LC 4), 4=63(LC 5)
Max Grav 5=395(LC 1), 4=222(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-351/175

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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=148.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 64 lb down and 21 lb up at 2-8-8, and 105 lb down and 83 lb up at 4-1-0 on top chord, and 7 lb down and 10 lb up at 2-8-8, and 30 lb down at 4-1-0 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=-43(F) 8=5(B) 9=-15(F)



January 29, 2021

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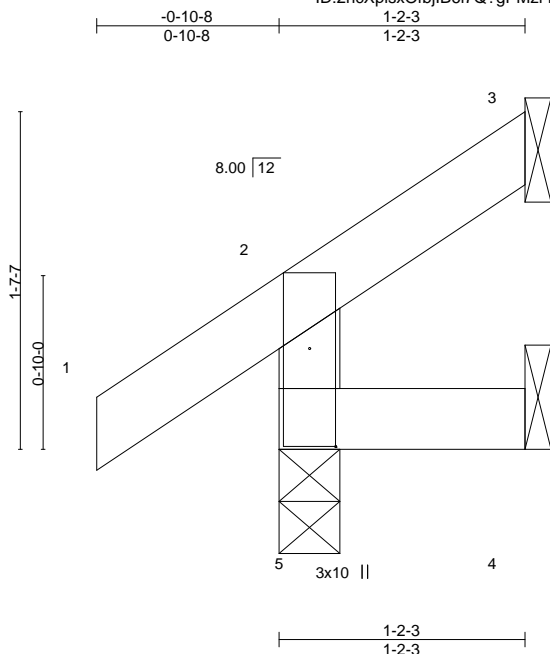
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	J9	Jack-Open	1	1	I44597138
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:33 2021 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-6o2A?BgT5QCFrCq5LTV1P1D?VRbEGw1RTFuxfhzqUpy



Scale = 1:11.1

Plate Offsets (X,Y)--		[5:0-5-10,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0		Plate Grip DOL 1.15		TC 0.07		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	180		
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 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-2-3 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=43(LC 8)
Max Uplift 5=14(LC 8), 3=22(LC 8), 4=5(LC 8)
Max Grav 5=153(LC 1), 3=17(LC 15), 4=17(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.



January 29, 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



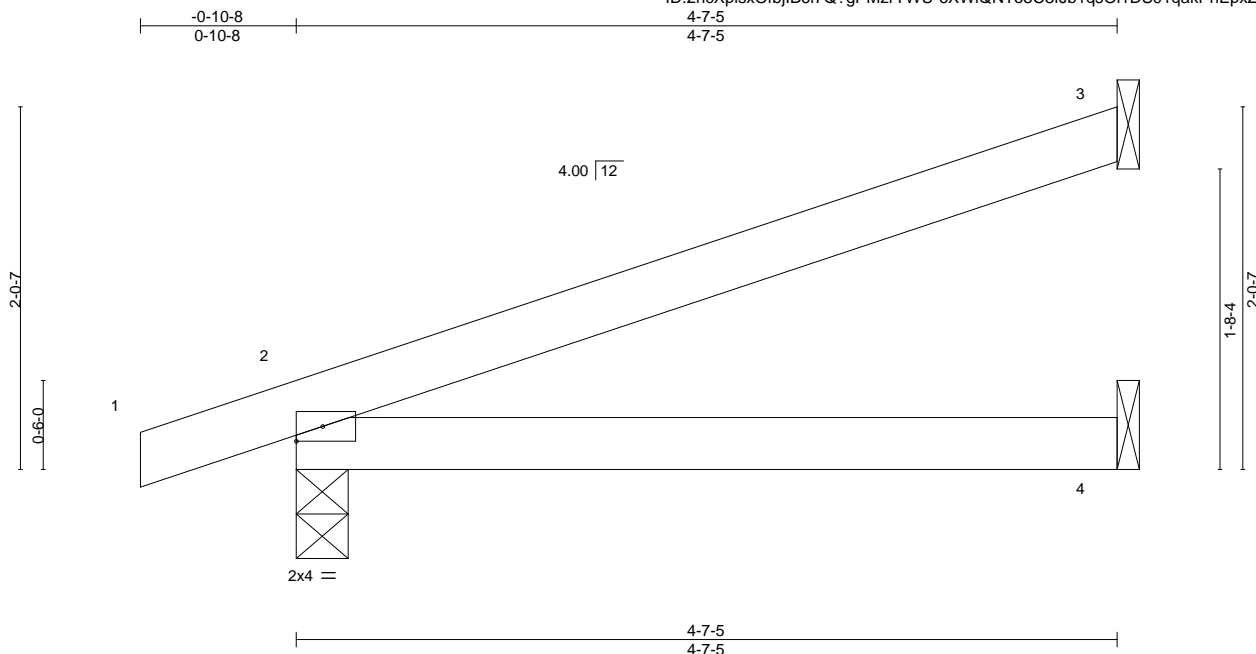
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210302	Truss J10	Truss Type Jack-Open	Qty 1	Ply 1	Lot 80 RR Job Reference (optional)	I44597139
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:16 2021 Page 1

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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 0.33	Vert(LL)	-0.02	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.05	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: 12 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 4-7-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

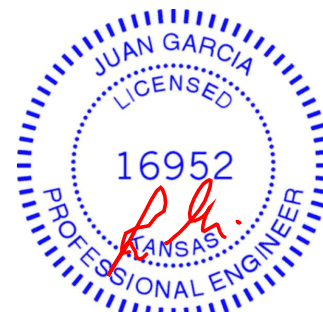
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=75(LC 4)
Max Uplift 3=74(LC 8), 2=72(LC 4)
Max Grav 3=146(LC 1), 2=278(LC 1), 4=88(LC 3)

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

NOTES-

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



January 29, 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



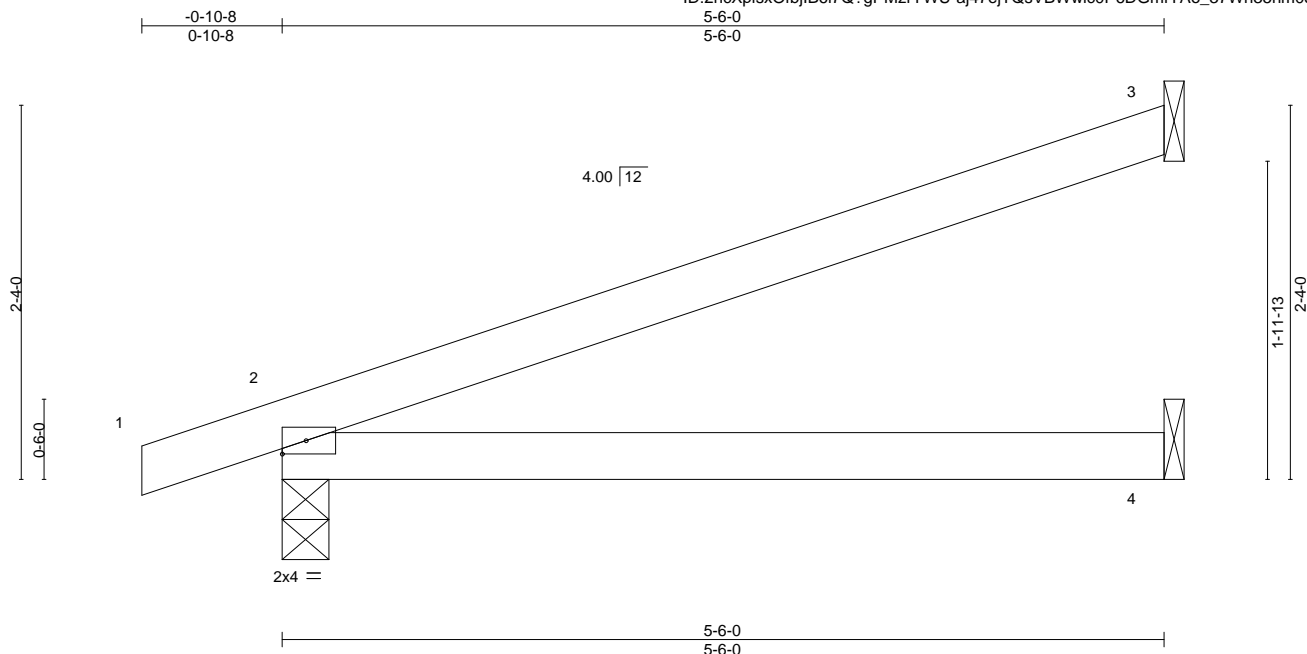
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210302	Truss J11	Truss Type Jack-Open	Qty 3	Ply 1	Lot 80 RR Job Reference (optional)	I44597140
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Wheeler Lumber, Waverly, KS - 66871,

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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 0.50	Vert(LL)	-0.05	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.09	2-4	>675	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: 14 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-0 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=87(LC 4)
Max Uplift 3=90(LC 8), 2=76(LC 4)
Max Grav 3=178(LC 1), 2=316(LC 1), 4=106(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 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.



January 29, 2021

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

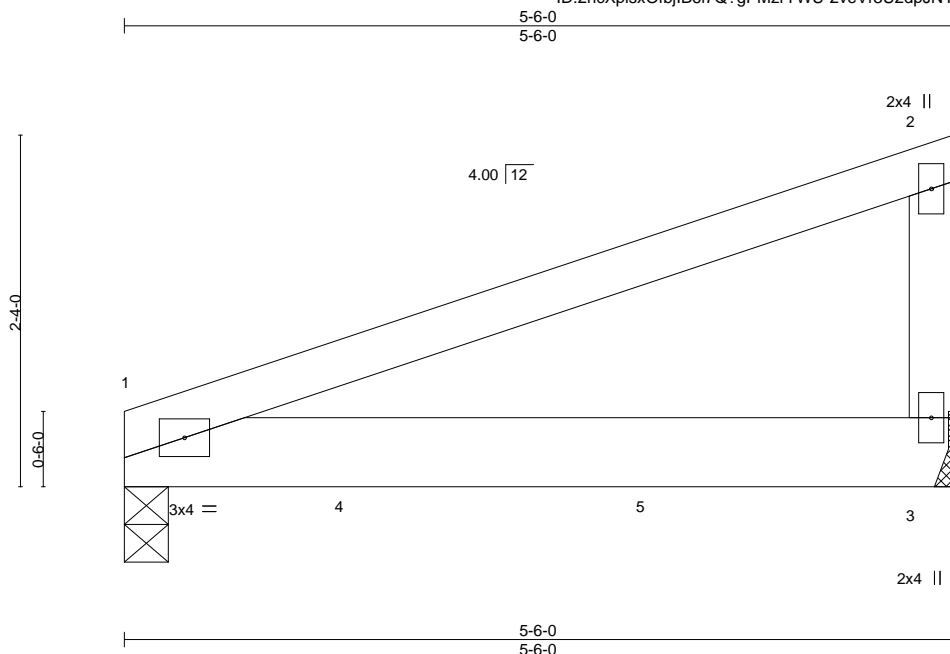
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017



Scale = 1:15.3

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 0.60	Vert(LL) -0.10 1-3 >616 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.77	Vert(CT) -0.19 1-3 >334 240		
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-P	Wind(LL) 0.07 1-3 >901 240	Weight: 21 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-1-2 oc bracing.

REACTIONS.

(size) 1=0-3-8, 3=Mechanical
Max Horz 1=85(LC 5)
Max Uplift 1=-157(LC 4), 3=-155(LC 8)
Max Grav 1=1162(LC 1), 3=1037(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) except (jt=lb) 1=157, 3=155.
- 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) 865 lb down and 120 lb up at 1-6-12, and 865 lb down and 120 lb up at 3-6-12 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, 1-3=-20
Concentrated Loads (lb)
Vert: 4=-865(F) 5=-865(F)



January 29, 2021

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

WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

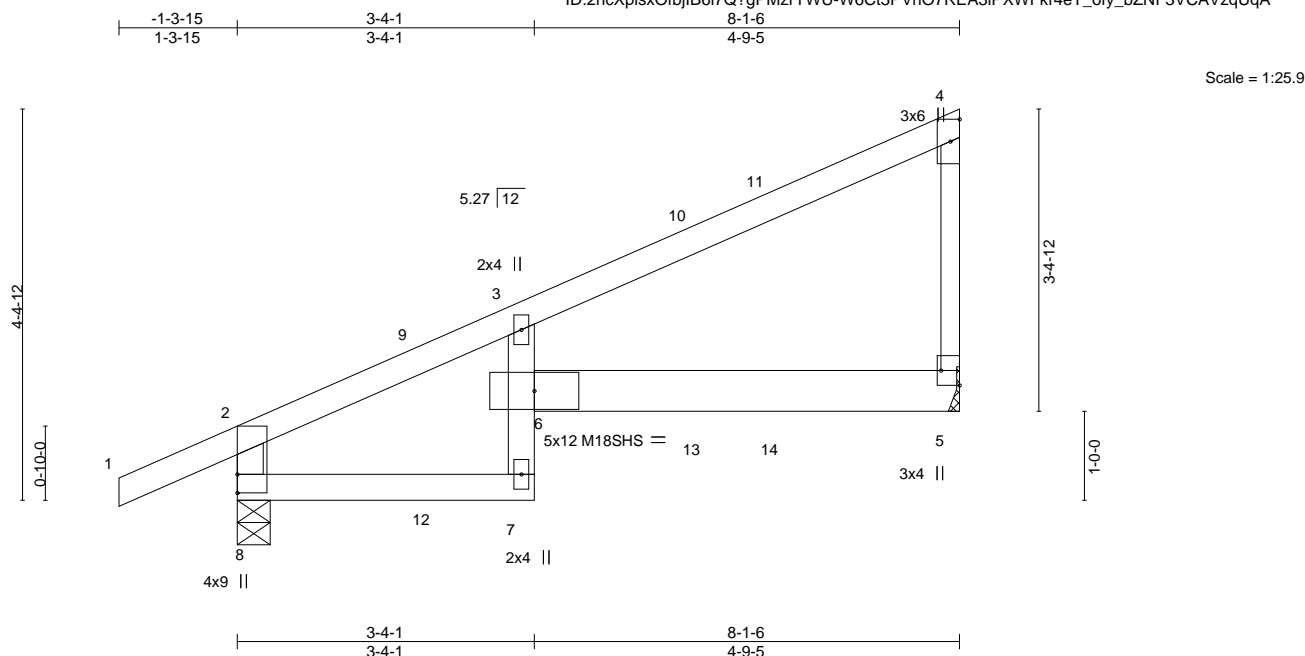


Plate Offsets (X,Y)-- [5:Edge,0-2-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.13	6	>725	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.23	6	>408	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.08	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.16	6	>580	240	Weight: 29 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
5-6: 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except*
4-5: 2x3 SPF No.2

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

REACTIONS. (size) 8=0-4-7, 5=Mechanical
Max Horz 8=167(LC 5)
Max Uplift 8=115(LC 8), 5=154(LC 5)
Max Grav 8=483(LC 1), 5=381(LC 1)

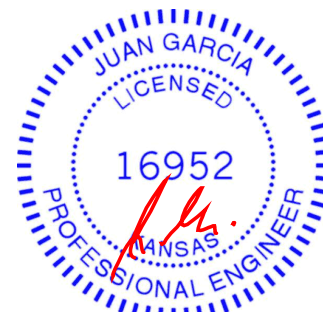
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-434/134, 2-3=-484/109
BOT CHORD 7-8=-165/331

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) except (jt=lb) 8=115, 5=154.
- 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) 81 lb down and 35 lb up at 2-1-10, 79 lb down and 50 lb up at 3-4-11, and 109 lb down and 65 lb up at 5-2-1, and 104 lb down and 63 lb up at 6-0-9 on top chord, and 6 lb down and 2 lb up at 2-1-10, 9 lb down and 12 lb up at 3-2-5, and 32 lb down and 36 lb up at 5-2-1, and 35 lb down and 31 lb up at 6-0-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



January 29, 2021

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	J13	Diagonal Hip Girder	1	1	I44597142
Job Reference (optional)					

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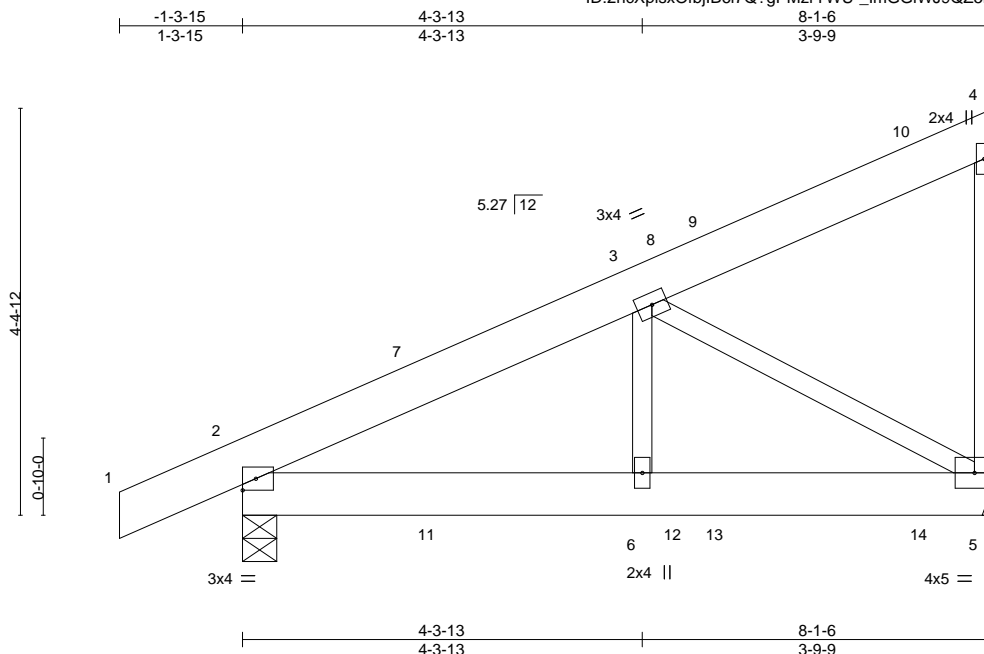
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 7=0(F) 10=-7(B) 11=-7(F) 12=2(B) 13=-28(B) 14=-12(F)

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597143
210302	J14	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsxOfbjB6l7Q?gPMzrYWU-_ImGGIWJ9QZ5nDKb5EmzNIAkVC8Uj?jXUjFJlyzqUq9



Scale = 1:24.9

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 0.22	Vert(LL)	-0.00	6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.01	6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.20	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.01	6	>999	240	
								Weight: 41 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-4-7
Max Horz 2=172(LC 5)
Max Uplift 5=190(LC 5), 2=117(LC 8)
Max Grav 5=459(LC 1), 2=483(LC 1)

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

TOP CHORD 2-3=-582/112
BOT CHORD 2-6=-166/402, 5-6=-166/402
WEBS 3-5=-454/191

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) except (jt=lb) 5=190, 2=117.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 27 lb up at 2-0-12, 81 lb down and 35 lb up at 2-1-10, 96 lb down and 72 lb up at 4-8-10, and 115 lb down and 83 lb up at 5-2-1, and 127 lb down and 129 lb up at 7-4-8 on top chord, and 7 lb down and 9 lb up at 2-0-12, 6 lb down and 2 lb up at 2-1-10, 19 lb down at 4-8-10, and 26 lb down at 5-2-1, and 53 lb down at 7-4-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 2-5=-20
Concentrated Loads (lb)
Vert: 9=-9(F) 10=-84(B) 11=6(F=2, B=4) 12=-4(B) 13=-14(F) 14=-26(B)



January 29, 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



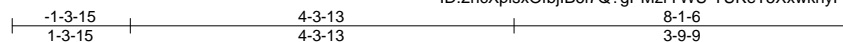
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597144
210302	J14A	Diagonal Hip Girder	1	1	Job Reference (optional)	

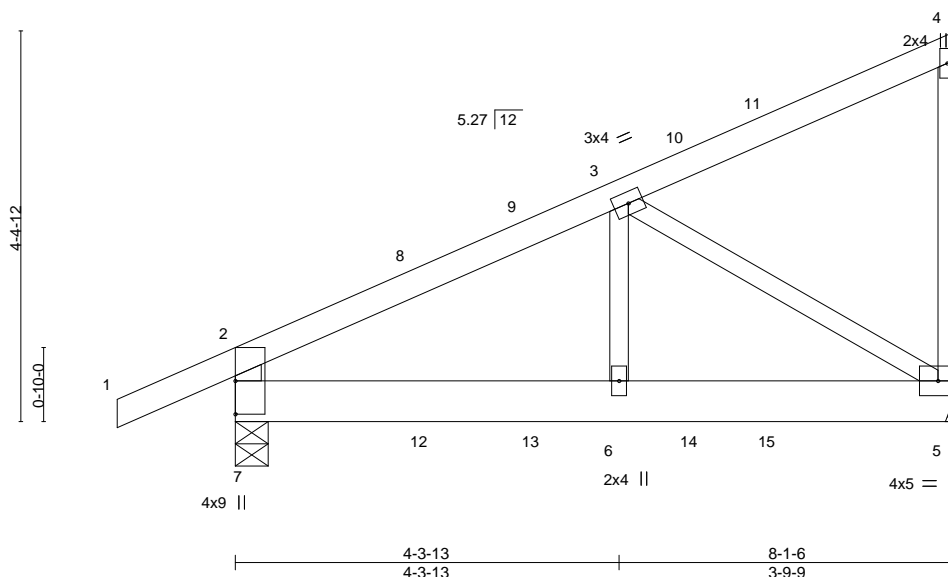
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:21 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-TUKeT5XxwkhYPMvoexHDwVju9bSCSTBgIn_JFOzqUq8



Scale = 1:25.9



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 0.29	Vert(LL)	-0.01	6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.02	6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.18	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01	6	>999	240	
								Weight: 35 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-4-7, 5=Mechanical
 Max Horz 7=182(LC 22)
 Max Uplift 7=109(LC 8), 5=138(LC 5)
 Max Grav 7=483(LC 1), 5=387(LC 1)

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

TOP CHORD 2-7=-409/123, 2-3=-500/101
 BOT CHORD 6-7=-164/357, 5-6=-164/357
 WEBS 3-5=-399/173

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) except (jt=lb) 7=109, 5=138.
- 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) 81 lb down and 35 lb up at 2-1-10, 79 lb down and 50 lb up at 3-4-11, and 115 lb down and 83 lb up at 5-2-1, and 112 lb down and 87 lb up at 6-0-9 on top chord, and 6 lb down and 2 lb up at 2-1-10, 9 lb down and 12 lb up at 3-4-11, and 26 lb down at 5-2-1, and 29 lb down at 6-0-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-70, 2-4=-70, 5-7=-20
 Concentrated Loads (lb)
 Vert: 10=-9(F) 11=-21(B) 12=2(F) 13=0(B) 14=-14(F) 15=-17(B)



January 29, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597145
210302	J15A	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:26.5

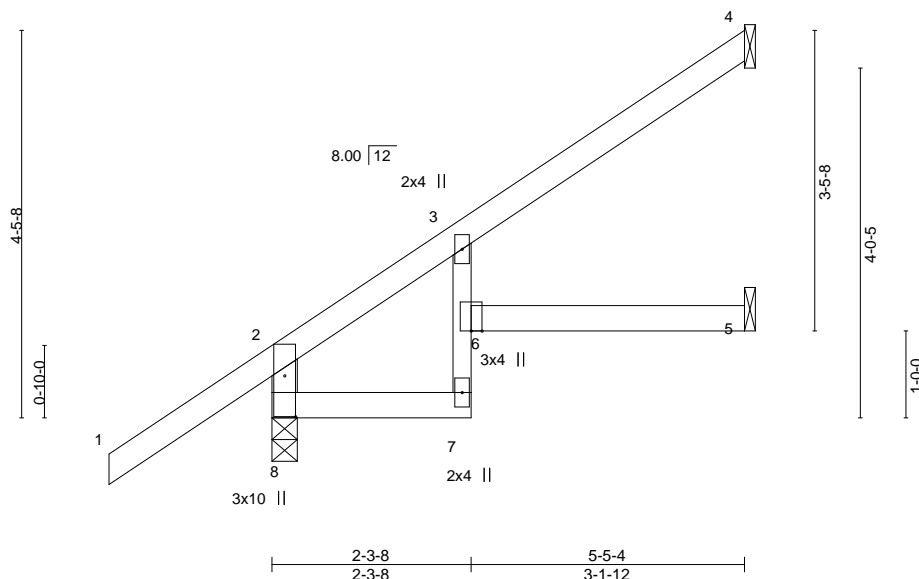


Plate Offsets (X,Y)--		[8:0-5-10,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0		Plate Grip DOL 1.15		TC 0.30		Vert(LL) -0.04	6	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.22		Vert(CT) -0.08	6	>767	240		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.00		Horz(CT) -0.04	5	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL) 0.07	6	>881	240	Weight: 18 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
 Max Horz 8=181(LC 8)
 Max Uplift 8=36(LC 8), 4=90(LC 8), 5=8(LC 8)
 Max Grav 8=404(LC 1), 4=154(LC 15), 5=85(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-8=-367/67

NOTES-

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



January 29, 2021

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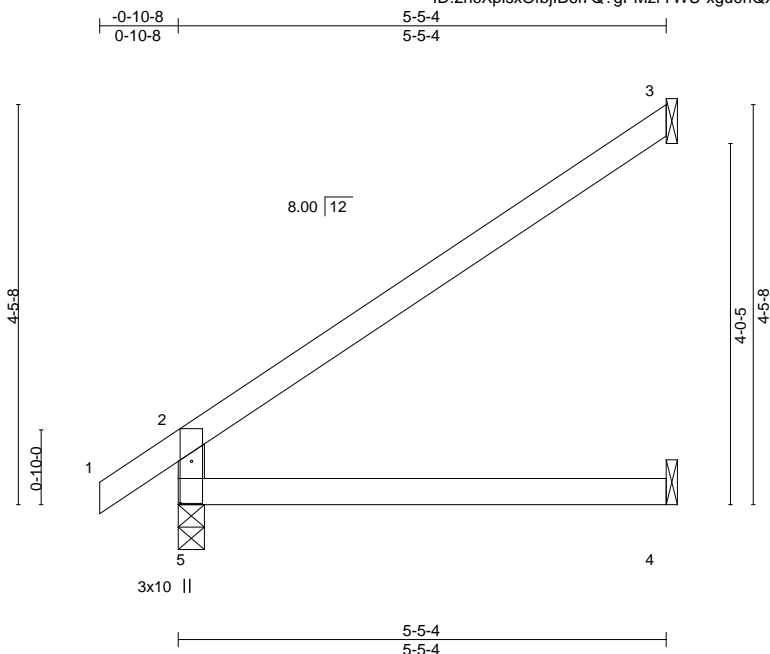
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597146
210302	J16	Jack-Open	17	1		
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbjlB6i7Q?gPMzrYWU-xgu0hQXZh2pp1WU_CfpSTjG1k?mrBylqx1ksnqzUq7



Scale = 1:25.7

Plate Offsets (X,Y)--	[5:0-5-10,0-1-8]				
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.03 4-5 >999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.08 4-5 >791 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.04 3 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04 4-5 >999 240
				PLATES	GRIP
				MT20	197/144
				Weight: 16 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-5-4 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=110(LC 8)
Max Uplift 3=69(LC 8)
Max Grav 5=314(LC 1), 3=168(LC 13), 4=100(LC 3)

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

TOP CHORD 2-5=-275/28

NOTES-

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



January 29, 2021

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Chesterfield, MO 63017

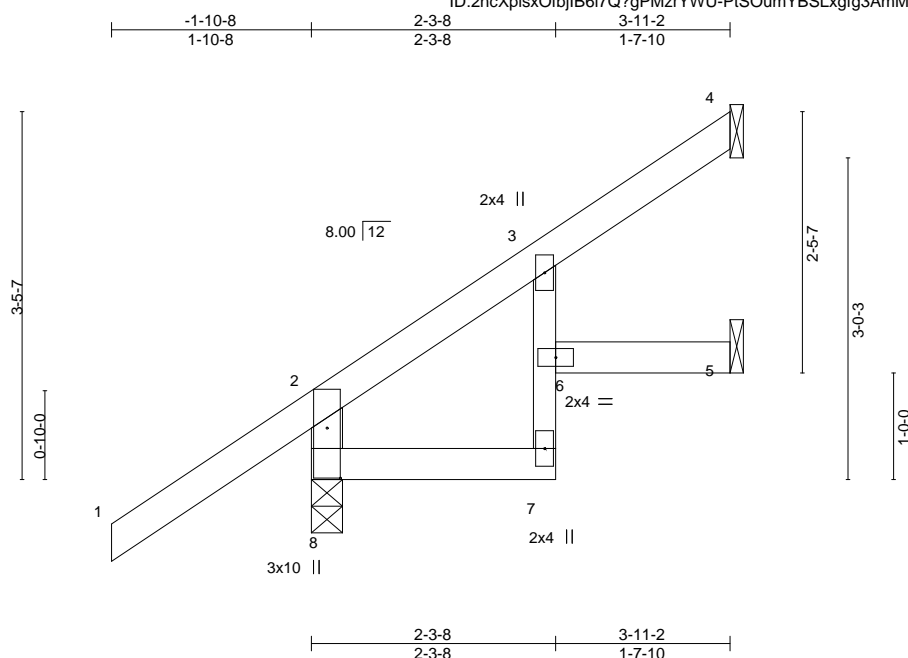


Plate Offsets (X,Y)--		[8:0-5-10,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.29		Vert(LL) -0.01 6 >999 360				MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.08		Vert(CT) -0.02 7 >999 240					
BCLL	0.0 *	Rep Stress Incr YES		WB 0.00		Horz(CT) -0.01 5 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL) 0.01 6 >999 240				Weight: 14 lb FT = 10%	

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

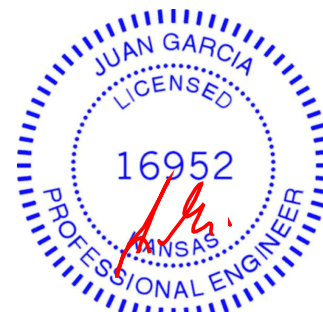
BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 3-11-2 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-3-8, 4=Mechanical, 5=Mechanical
 Max Horz 8=140(LC 8)
 Max Uplift 8=-41(LC 8), 4=-54(LC 8), 5=-13(LC 8)
 Max Grav 8=347(LC 1), 4=97(LC 15), 5=55(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-311/67

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) 8, 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 29, 2021

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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH-747.5 (REV. 3/19/2020) BEFORE USE.

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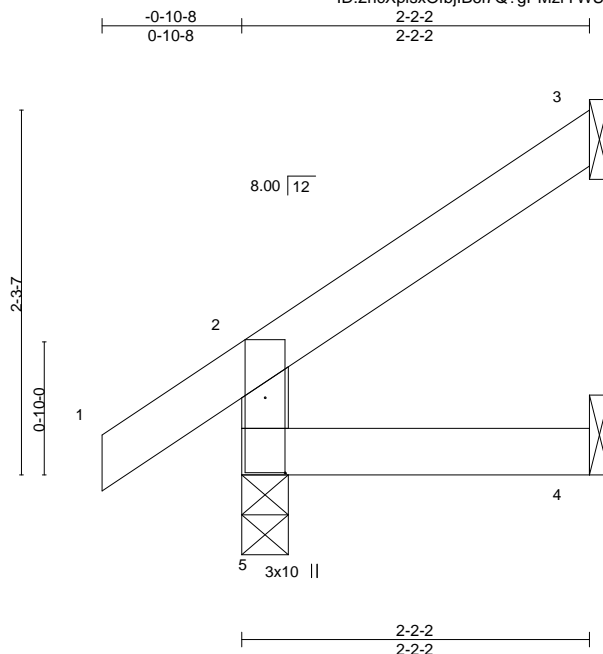
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597148
210302	J18	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-PtSOumYBSLxgfg3AmMKh?woH0PAZwPYzAhTPJGzqUq6



Scale = 1:14.4

Plate Offsets (X,Y)--	[5:0-5-10,0-1-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

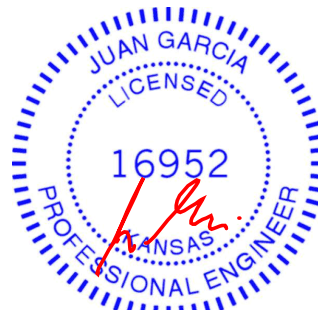
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=69(LC 8)
Max Uplift 5=-10(LC 8), 3=-45(LC 8), 4=-2(LC 8)
Max Grav 5=179(LC 1), 3=60(LC 15), 4=36(LC 3)

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

NOTES-

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



January 29, 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



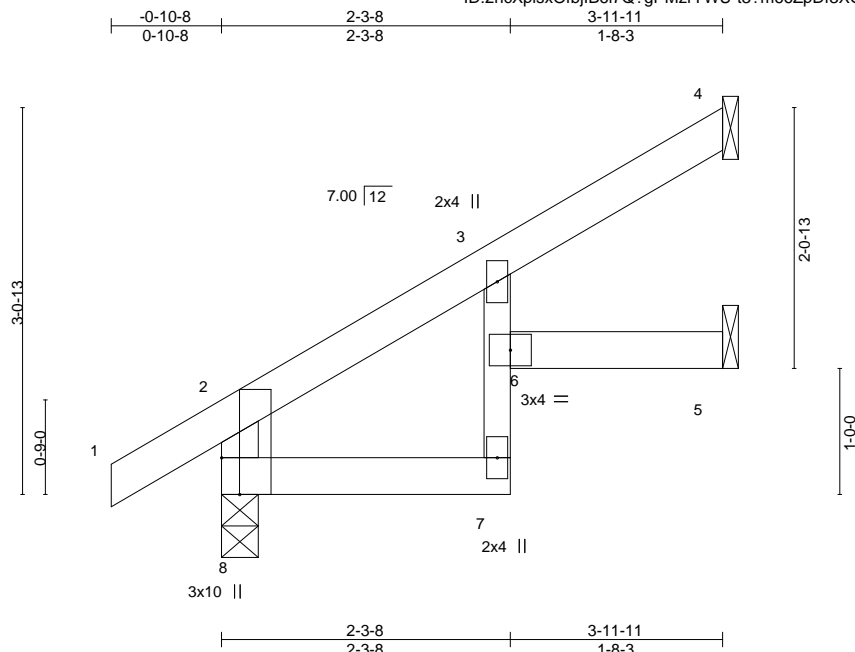
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597149
210302	J19	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:24 2021 Page 1

ID:2ncXplsXOfbjlB6I7Q?gPMzrYWU-t3?m66ZpDf3XGqeMK4rwY8LRnpUTfso7OLDZsjzqUq5



Scale = 1:18.3

Plate Offsets (X,Y)--		[8:0-3-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.14		Vert(LL)	-0.01 6	>999	360	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.19		Vert(CT)	-0.02 7	>999	240		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.01 5	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.02 7	>999	240	Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

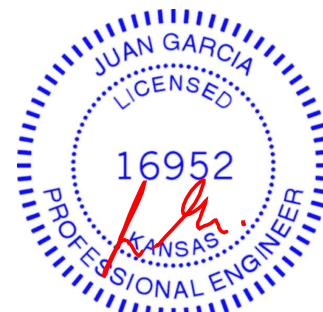
REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
 Max Horz 8=103(LC 8)
 Max Uplift 8=-19(LC 8), 4=-52(LC 8), 5=-15(LC 8)
 Max Grav 8=251(LC 1), 4=106(LC 15), 5=64(LC 15)

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

NOTES-

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



January 29, 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



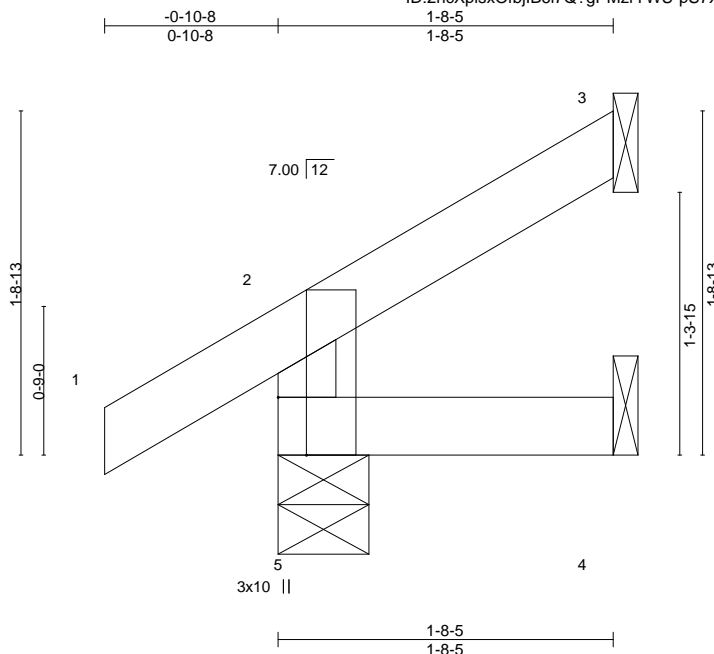
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597150
210302	J20	Jack-Open	4	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:26 2021 Page 1

ID:2ncXplsXOfbjB6I7Q?gPMzrYWU-pS7XXoa4IGJFW8olRUtOdZQoHcCa7mIPsf4wbzqUq3



Scale = 1:11.6

Plate Offsets (X,Y)--	[5:0-3-8,Edge]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

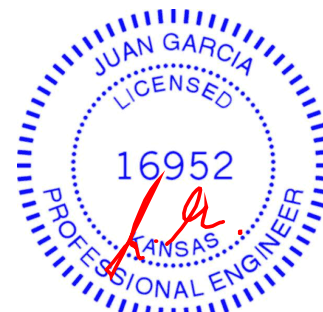
REACTIONS.

(size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=50(LC 8)
Max Uplift 5=19(LC 8), 3=30(LC 8)
Max Grav 5=164(LC 1), 3=40(LC 15), 4=27(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.



January 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597151
210302	J21	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:27 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-Hehvk8biWaR67HNx?COdAmzx40W9sDYZ5JRdS2zqUq2

-0-10-8 0-10-8 3-11-2 3-11-2

Scale = 1:20.2

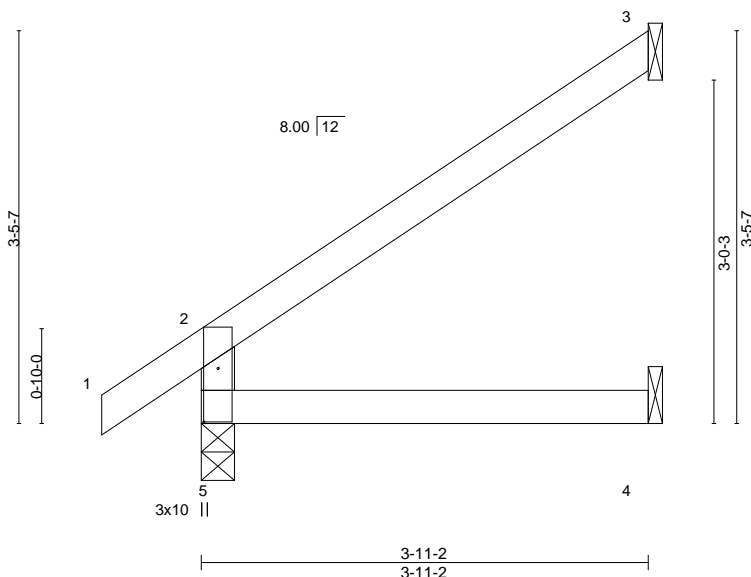


Plate Offsets (X,Y)--		[5:0-5-10,0-1-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=116(LC 8)
Max Uplift 5=-7(LC 8), 3=-82(LC 8)
Max Grav 5=249(LC 1), 3=122(LC 15), 4=70(LC 3)

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597152
210302	J22	Jack-Open	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:28 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-lqFHyUckHuZylRx8ZvvsizW6lQsMbgolJzBA?UzqUq1



Scale = 1:18.3

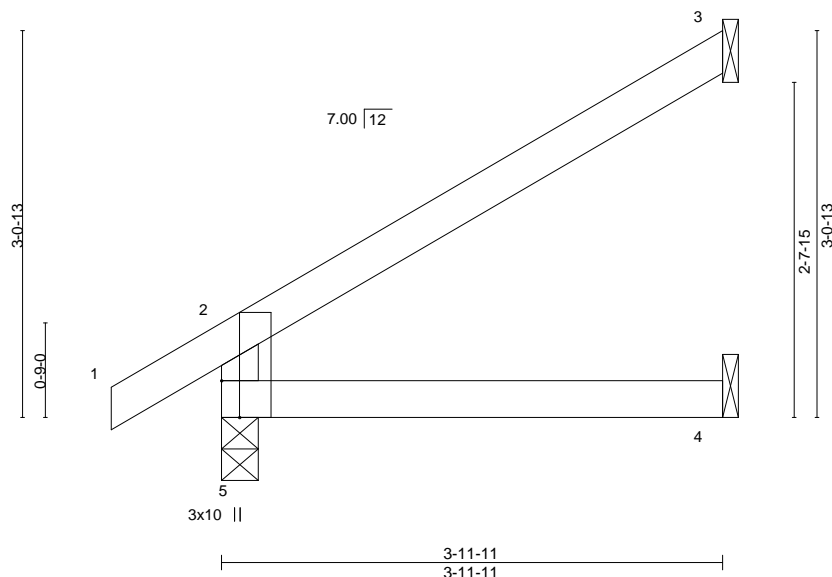


Plate Offsets (X,Y)--		[5:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20
TCDL 10.0	Lumber DOL	1.15	BC 0.13
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.01 4-5 >999 360
			Vert(CT) -0.02 4-5 >999 240
			Horz(CT) -0.01 3 n/a n/a
			Wind(LL) 0.01 4-5 >999 240
			PLATES MT20
			GRIP 197/144
			Weight: 11 lb FT = 10%

LUMBER-

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

BRACING-

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

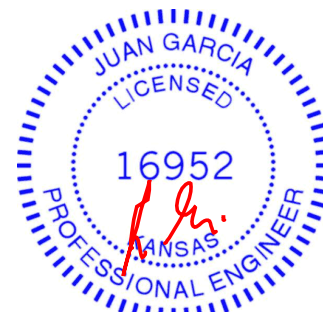
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=103(LC 8)
Max Uplift 5=-19(LC 8), 3=-73(LC 8)
Max Grav 5=251(LC 1), 3=122(LC 15), 4=71(LC 3)

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

NOTES-

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



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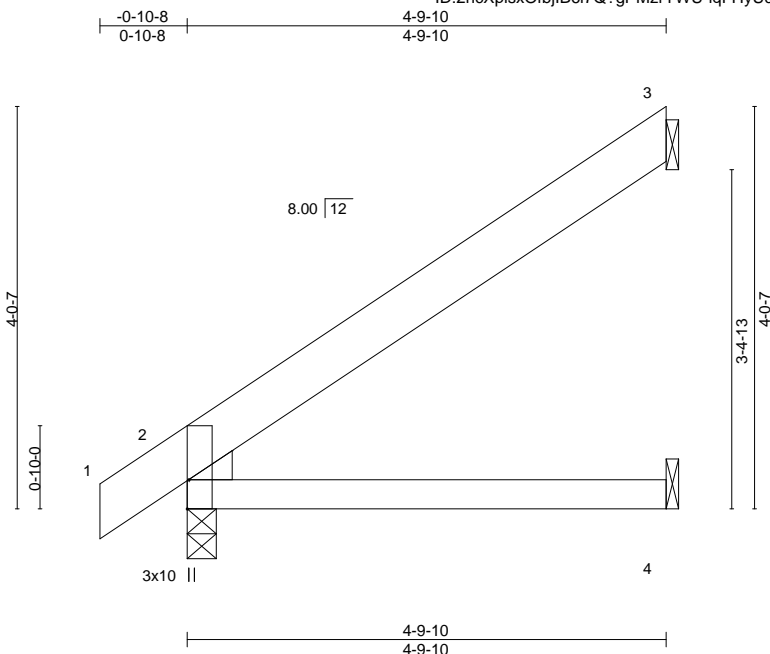
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597153
210302	J23	Jack-Open	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:28 2021 Page 1

ID:2ncXplsXOfbjIB6l7Q?gPMzrYWU-lqFHyUcKHuZylRx8ZwsizW7NQqwbgoiJzBA?UzqUq1



Scale = 1:23.1

Plate Offsets (X,Y)--		[2:Edge,0-0-3]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16
TCDL 10.0	Lumber DOL	1.15	BC 0.22
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) -0.03 2-4 >999 360
			Vert(CT) -0.05 2-4 >999 240
			Horz(CT) -0.00 3 n/a n/a
			Wind(LL) 0.00 2 **** 240
			PLATES
			MT20
			GRIP
			197/144
			Weight: 19 lb FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 4-9-10 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=152(LC 8)

Max Uplift 3=120(LC 8), 2=8(LC 8)

Max Grav 3=165(LC 15), 2=286(LC 1), 4=92(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 except (jt=lb) 3=120.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	144597154
210302	J24	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:29 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-E1pf9qdy1BhpNbWK6dR5FB2J1qCVK61sYdwkXwzqUq0

-0-10-8
0-10-8
3-0-10
3-0-10

Scale = 1:17.4

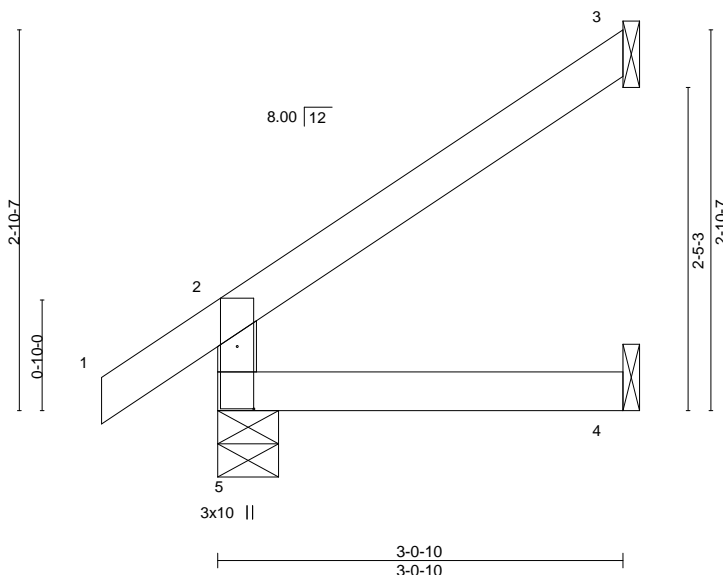


Plate Offsets (X,Y)-- [5:0-5-10,0-1-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	-0.00	4-5	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	4-5	>999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.01	3	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.01	4-5	>999	240	Weight: 10 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=93(LC 8)
Max Uplift 5=-8(LC 8), 3=-64(LC 8)
Max Grav 5=212(LC 1), 3=92(LC 15), 4=53(LC 3)

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

NOTES-

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



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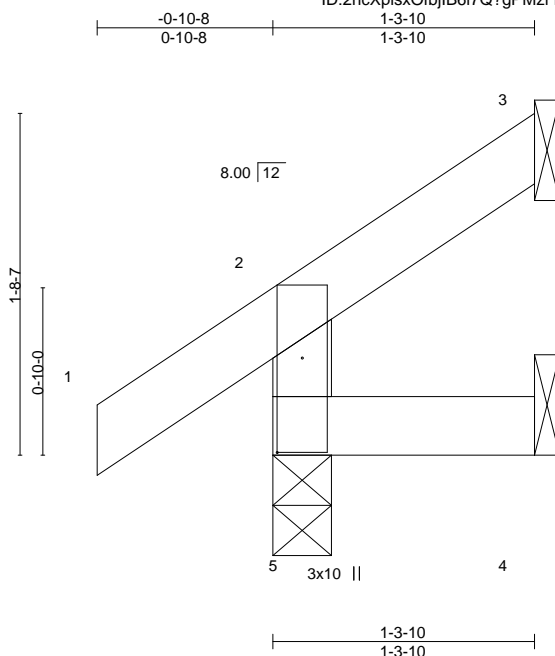
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	J25	Jack-Open	2	1	I44597155

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:29 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-E1pf9qdy1BhpNbWK6dR5FB2JWqDIK61sYdwkXwzqUq0



Scale = 1:11.5

Plate Offsets (X,Y)--		[5:0-5-10,0-1-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
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-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) 0.00 5 >999 360
			Vert(CT) -0.00 5 >999 180
			Horz(CT) -0.00 3 n/a n/a
			Wind(LL) 0.00 5 >999 240
			PLATES GRIP
			MT20 197/144
			Weight: 5 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-3-10 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=46(LC 8)
Max Uplift 5=-13(LC 8), 3=-25(LC 8), 4=-4(LC 8)
Max Grav 5=155(LC 1), 3=24(LC 15), 4=19(LC 3)

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

NOTES-

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



January 29, 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



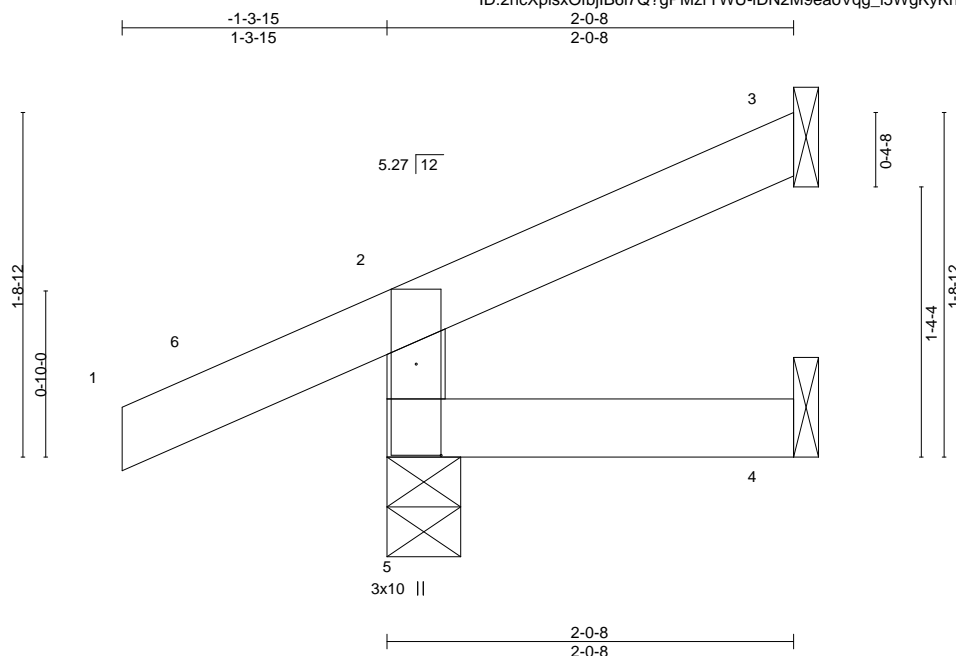
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597156
210302	J26	Jack-Open Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:30 2021 Page 1

ID:2ncXplsXOfbjIB6I7Q?gPMzrYWU-iDN2M9eaoVqg_I5WgKyKnObUxEZU3ZH?nHgH3MzqUq?



Scale = 1:11.6

Plate Offsets (X,Y)--	[5:0-5-8,0-1-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5	>999	Weight: 7 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-7, 3=Mechanical, 4=Mechanical
Max Horz 5=63(LC 7)
Max Uplift 5=112(LC 12), 3=22(LC 12)
Max Grav 5=70(LC 1), 3=25(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=112.
- 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 -1-3-15, and 9 lb down and 3 lb up at -1-3-15 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=-13(F=-7, B=-7)
Trapezoidal Loads (plf)
Vert: 1=-0(F=35, B=35)-to-6=-9(F=30, B=30), 6=0(F=35, B=35)-to-2=-17(F=27, B=27), 2=-17(F=27, B=27)-to-3=-49(F=10, B=10), 5=-5(F=8, B=8)-to-4=-14(F=3, B=3)



January 29, 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



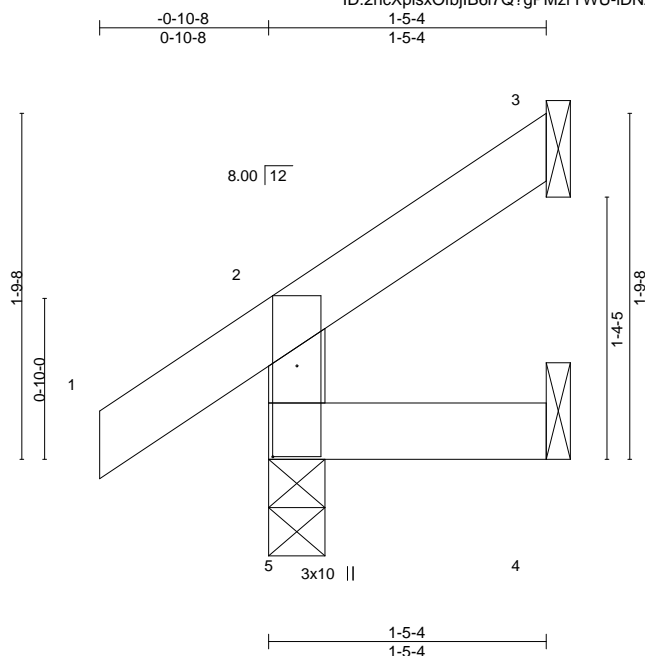
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597157
210302	J27	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:30 2021 Page 1

ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-iDN2M9eaoVqg_I5WgKyKnObUFEZV3ZH?nHgH3MzqUq?



Scale: 1"=1'

Plate Offsets (X,Y)--		[5:0-5-10,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144		
TCDL	10.0	Lumber DOL 1.15		BC	0.02	Vert(CT)	-0.00	5	>999	180				
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							Weight: 5 lb		FT = 10%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-5-4 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=50(LC 8)
Max Uplift 5=-12(LC 8), 3=-29(LC 8), 4=-4(LC 8)
Max Grav 5=158(LC 1), 3=30(LC 15), 4=22(LC 3)

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

NOTES-

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



January 29, 2021

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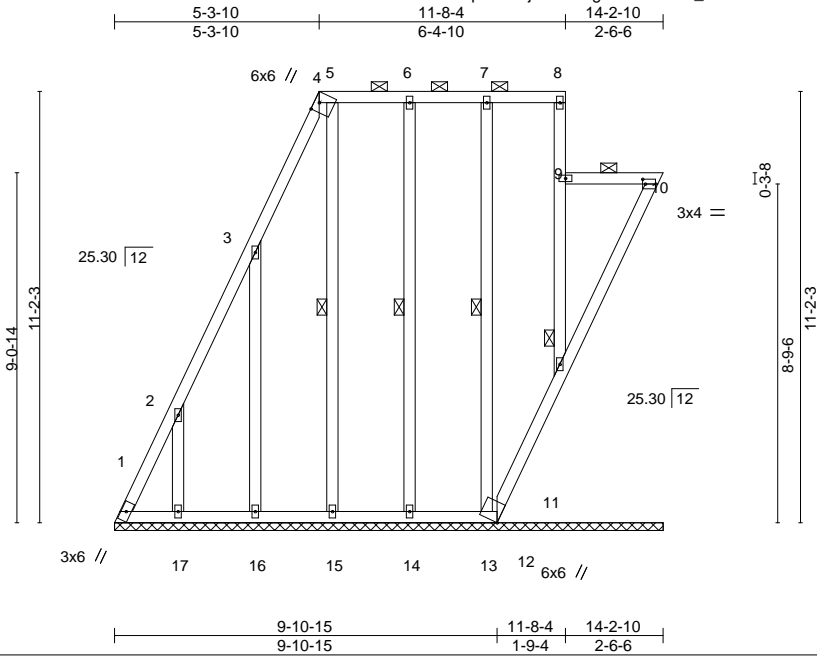
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	LAY2	GABLE	1	1	144597158

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:34 2021 Page 1

ID:2ncXplsxOfbjlB6l7Q?gPMzrYWU-a_cYCXh5skK6TMPHvA0GyEmAPrw??KKbiveVB8zqUpX



Scale = 1:59.7

Plate Offsets (X,Y)--		[4:0-2-13,Edge], [10:0-0-13,0-1-8]									
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.25	Horz(CT)	-0.02	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 102 lb	FT = 10%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-8, 9-11, 9-10. Except:
1 Row at midpt 9-11
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 11-12.
WEBS 1 Row at midpt 5-15, 6-14, 7-13

REACTIONS. All bearings 14-2-10.
(lb) - Max Horz 1=535(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 11, 12, 14, 13 except 1=424(LC 6), 10=277(LC 8), 17=371(LC 8), 16=412(LC 8), 15=191(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 10, 12, 15, 14, 13 except 1=860(LC 8), 11=283(LC 17), 17=305(LC 15), 16=334(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=953/512, 2-3=598/333
BOT CHORD 10-11=296/177
WEBS 2-17=257/376, 3-16=295/440

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are 2x4 MT20 unless otherwise indicated.
 - 5) Gable requires continuous bottom chord bearing.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 12, 14, 13 except (jt=lb) 1=424, 10=277, 17=371, 16=412, 15=191.
 - 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 10.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



January 29, 2021

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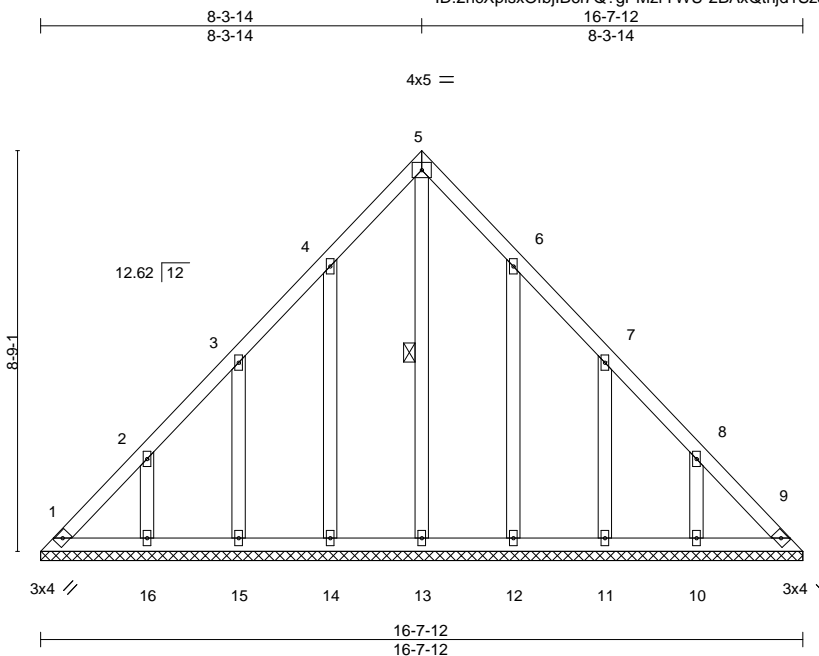
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210302	Truss LAY3	Truss Type GABLE	Qty 1	Ply 1	Lot 80 RR I44597159
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:35 2021 Page 1

ID:2ncXplsXOffbjlB6l7Q?gPMzrYWU-2BAxQthjd1Sz5W_UTtXVUSIK7FGekphkwZN2kazqUpw



Scale = 1:50.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.01	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 82 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.
WEBS 1 Row at midpt 5-13

REACTIONS.

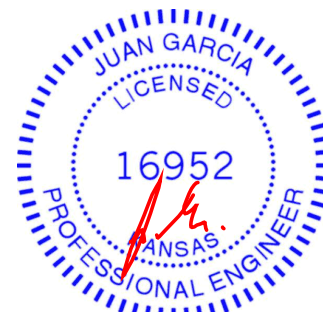
All bearings 16-7-12.
(lb) - Max Horz 1=222(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=126(LC 8), 15=122(LC 8), 16=139(LC 8),
12=125(LC 9), 11=123(LC 9), 10=139(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-285/187, 8-9=-250/135

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) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=126, 15=122, 16=139, 12=125, 11=123, 10=139.
- 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.



January 29, 2021

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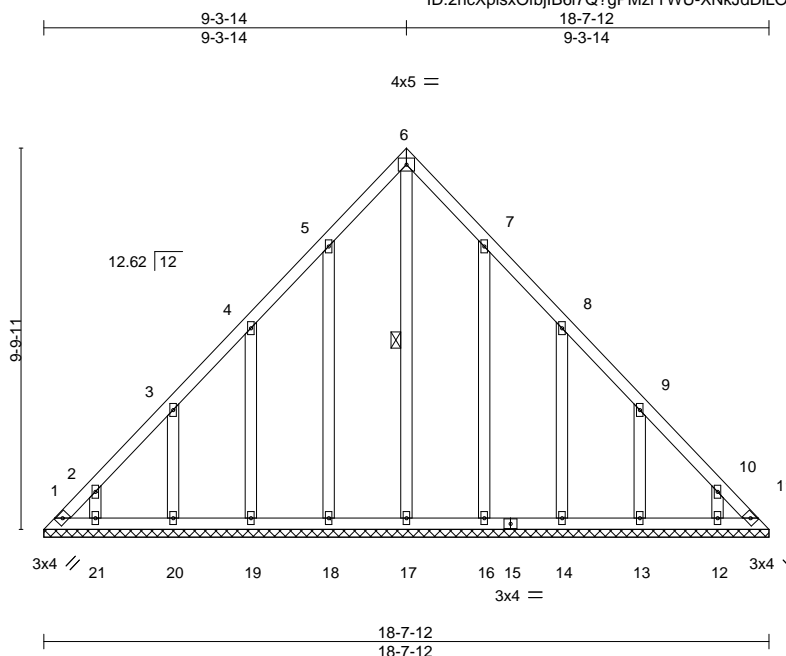
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR
210302	LAY4	GABLE	1	1	I44597160

Wheeler Lumber, Waverly, KS - 66871,

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ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-XNkJdDiLOlaqigZg1b3k1frWwecWTFfu9D7bG0zqUpv



Scale = 1:59.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 98 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.
WEBS 1 Row at midpt 6-17

REACTIONS.

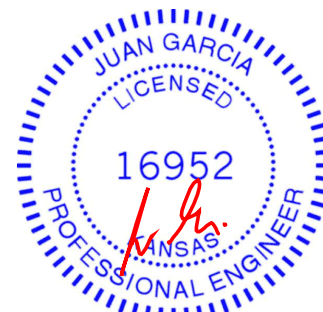
All bearings 18-7-12.
(lb) - Max Horz 1=250(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 11 except 1=139(LC 6), 18=124(LC 8), 19=126(LC 8), 20=127(LC 8), 21=106(LC 8), 16=121(LC 9), 14=127(LC 9), 13=126(LC 9), 12=106(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 11, 17, 18, 19, 20, 21, 16, 14, 13, 12 except 1=258(LC 8)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-361/219, 2-3=-263/185, 10-11=-322/161

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 1=139, 18=124, 19=126, 20=127, 21=106, 16=121, 14=127, 13=126, 12=106.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



January 29, 2021

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

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

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

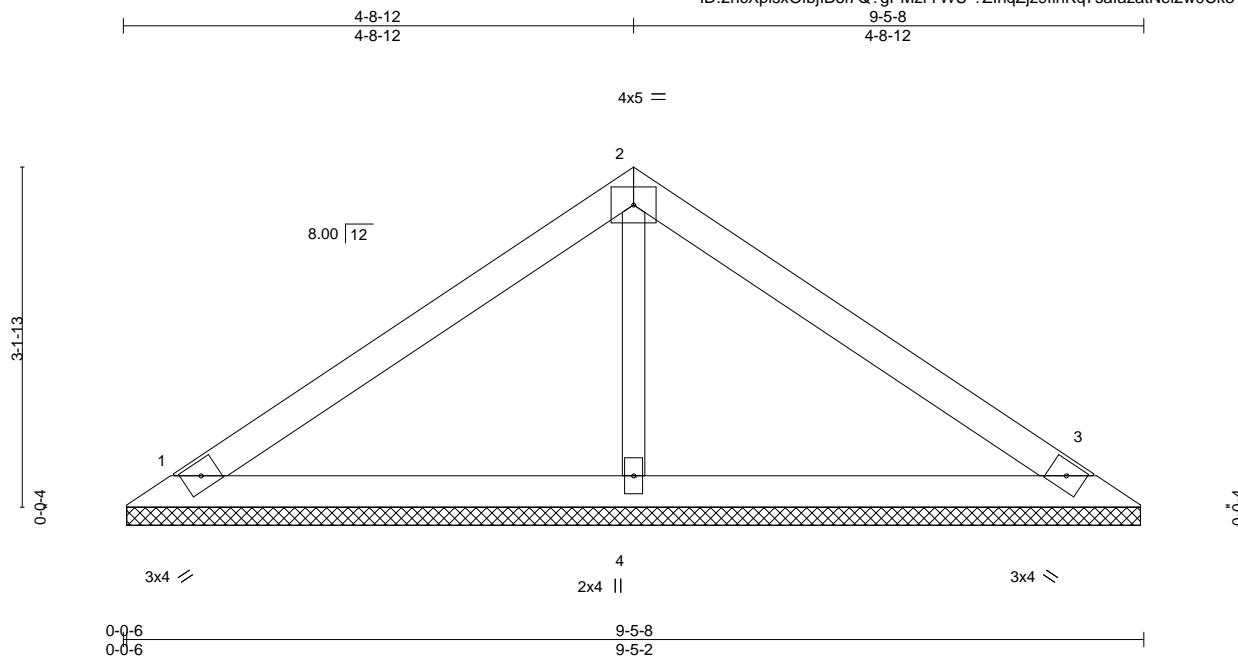


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210302	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lot 80 RR I44597161
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:37 2021 Page 1
ID:2ncXplsXOfbjlB6l7Q?gPMzrYWU-?ZlhqZjz9fihKq7salazatNel2w0Ck51Ots9oTzqUpu



Scale = 1:21.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 24 lb	FT = 10%

LUMBER-

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

BRACING-

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

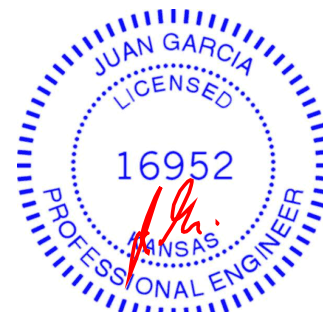
REACTIONS.

(size) 1=9-4-12, 3=9-4-12, 4=9-4-12
Max Horz 1=74(LC 5)
Max Uplift 1=37(LC 8), 3=46(LC 9), 4=14(LC 8)
Max Grav 1=197(LC 1), 3=197(LC 1), 4=371(LC 1)

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

NOTES-

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



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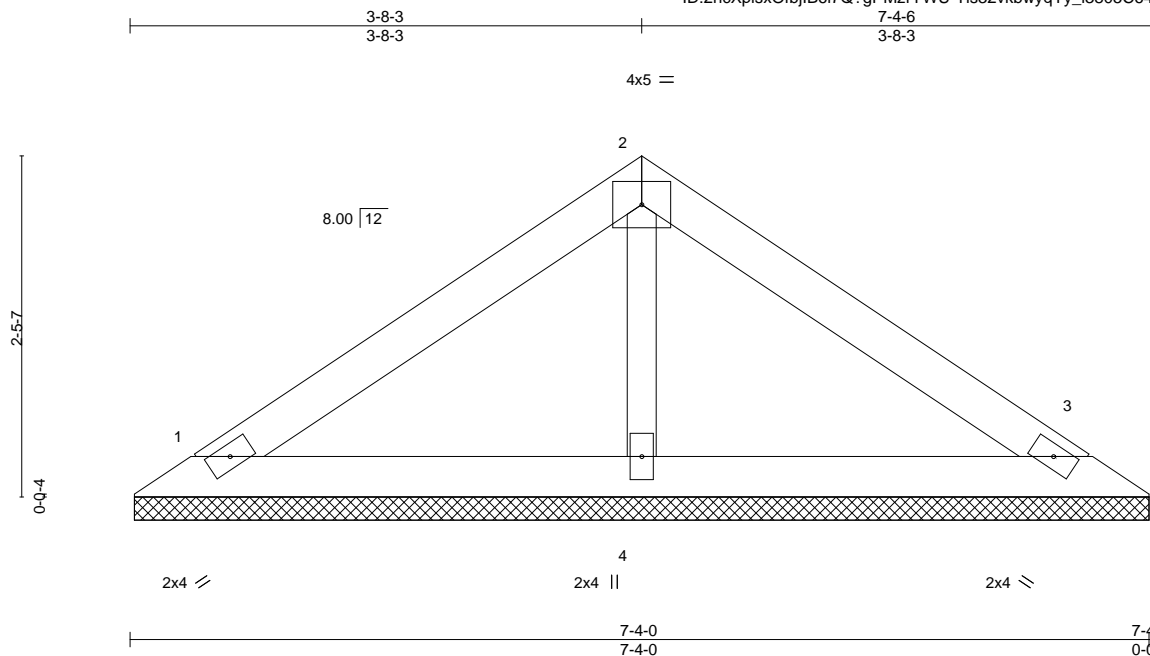
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 80 RR	I44597162
210302	V2	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Jan 29 12:48:38 2021 Page 1

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Scale = 1:16.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-3-10, 3=7-3-10, 4=7-3-10
Max Horz 1=-56(LC 4)
Max Uplift 1=-36(LC 8), 3=-43(LC 9)
Max Grav 1=162(LC 1), 3=162(LC 1), 4=252(LC 1)

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

NOTES-

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



January 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210302	Truss V3	Truss Type Valley	Qty 1	Ply 1	Lot 80 RR 144597163
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Wheeler Lumber, Waverly, KS - 66871,

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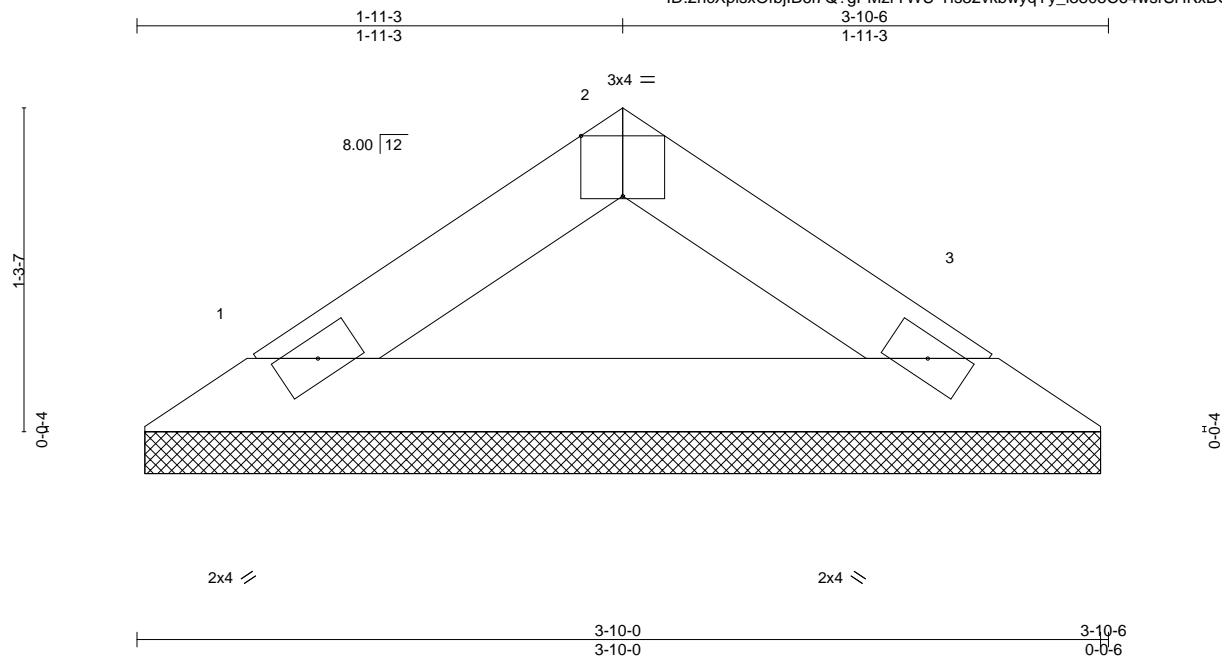


Plate Offsets (X,Y)--		[2:0-2-0,Edge]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P					
						PLATES	GRIP		
						MT20	197/144		
						Weight: 8 lb	FT = 10%		

LUMBER-

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

BRACING-

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

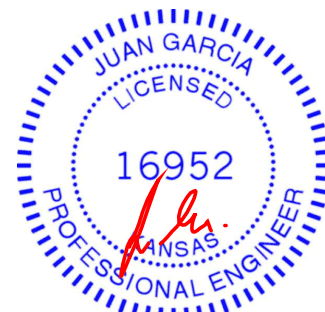
REACTIONS.

(size) 1=3-9-10, 3=3-9-10
Max Horz 1=-25(LC 4)
Max Uplift 1=-15(LC 8), 3=-15(LC 9)
Max Grav 1=131(LC 1), 3=131(LC 1)

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

NOTES-

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



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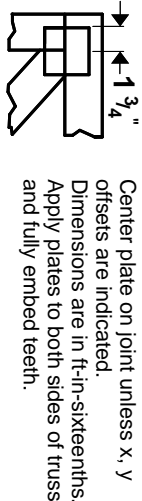
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



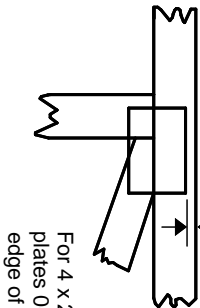
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



0-¹/₁₆"



For 4 x 2 orientation, locate plates 0- ¹/₁₆" from outside edge of truss.

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

* Plate location details available in **MiTek 20/20** software or upon request.

PLATE SIZE

4 X 4

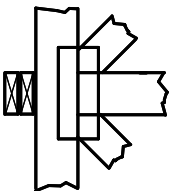
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



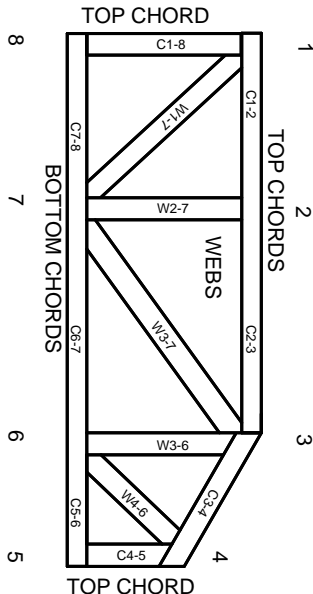
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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