



RELEASE FOR CONSTRUCTION  
 AS NOTED ON PLANS REVIEW  
 DEVELOPMENT SERVICES  
 LEE'S SUMMIT, MISSOURI  
 12/06/2021 4:15:44

RE: RR118  
 Lot 118 RR

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

**Site Information:**

Customer: Project Name: RR118  
 Lot/Block: Model:  
 Address: Subdivision:  
 City: State:

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

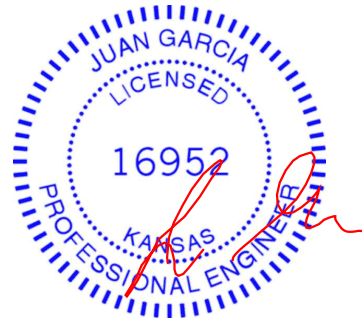
Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.4  
 Wind Code: ASCE 7 - 16[Low Rise] Wind Speed: 115 mph  
 Roof Load: 45.0 psf Floor Load: N/A psf

This package includes 117 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48686535	A1	11/8/2021	21	I48686555	C10	11/8/2021
2	I48686536	A2	11/8/2021	22	I48686556	D1	11/8/2021
3	I48686537	A3	11/8/2021	23	I48686557	D2	11/8/2021
4	I48686538	A4	11/8/2021	24	I48686558	D3	11/8/2021
5	I48686539	A5	11/8/2021	25	I48686559	D4	11/8/2021
6	I48686540	A6	11/8/2021	26	I48686560	E1	11/8/2021
7	I48686541	B1	11/8/2021	27	I48686561	E2	11/8/2021
8	I48686542	B2	11/8/2021	28	I48686562	E3	11/8/2021
9	I48686543	B3	11/8/2021	29	I48686563	E4	11/8/2021
10	I48686544	B4	11/8/2021	30	I48686564	E5	11/8/2021
11	I48686545	B5	11/8/2021	31	I48686565	G1	11/8/2021
12	I48686546	C1	11/8/2021	32	I48686566	G2	11/8/2021
13	I48686547	C2	11/8/2021	33	I48686567	G3	11/8/2021
14	I48686548	C3	11/8/2021	34	I48686568	G4	11/8/2021
15	I48686549	C4	11/8/2021	35	I48686569	G5	11/8/2021
16	I48686550	C5	11/8/2021	36	I48686570	G6	11/8/2021
17	I48686551	C6	11/8/2021	37	I48686571	G7	11/8/2021
18	I48686552	C7	11/8/2021	38	I48686572	G8	11/8/2021
19	I48686553	C8	11/8/2021	39	I48686573	G9	11/8/2021
20	I48686554	C9	11/8/2021	40	I48686574	G10	11/8/2021

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

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





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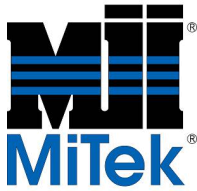
Subdivision:

Address:

City, County:

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No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
41	I48686575	H1	11/8/2021	85	I48686619	J42	11/8/2021
42	I48686576	H2	11/8/2021	86	I48686620	J43	11/8/2021
43	I48686577	H3	11/8/2021	87	I48686621	J44	11/8/2021
44	I48686578	H4	11/8/2021	88	I48686622	J45	11/8/2021
45	I48686579	J1	11/8/2021	89	I48686623	J46	11/8/2021
46	I48686580	J2	11/8/2021	90	I48686624	J47	11/8/2021
47	I48686581	J3	11/8/2021	91	I48686625	J48	11/8/2021
48	I48686582	J4	11/8/2021	92	I48686626	J49	11/8/2021
49	I48686583	J5	11/8/2021	93	I48686627	J50	11/8/2021
50	I48686584	J6	11/8/2021	94	I48686628	J51	11/8/2021
51	I48686585	J7	11/8/2021	95	I48686629	K1	11/8/2021
52	I48686586	J8	11/8/2021	96	I48686630	K2	11/8/2021
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65	I48686599	J22	11/8/2021	109	I48686643	R1	11/8/2021
66	I48686600	J23	11/8/2021	110	I48686644	V8	11/8/2021
67	I48686601	J24	11/8/2021	111	I48686645	V9	11/8/2021
68	I48686602	J25	11/8/2021	112	I48686646	V10	11/8/2021
69	I48686603	J26	11/8/2021	113	I48686647	V11	11/8/2021
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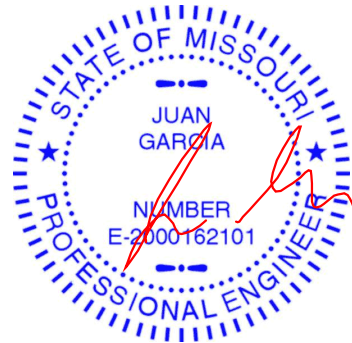
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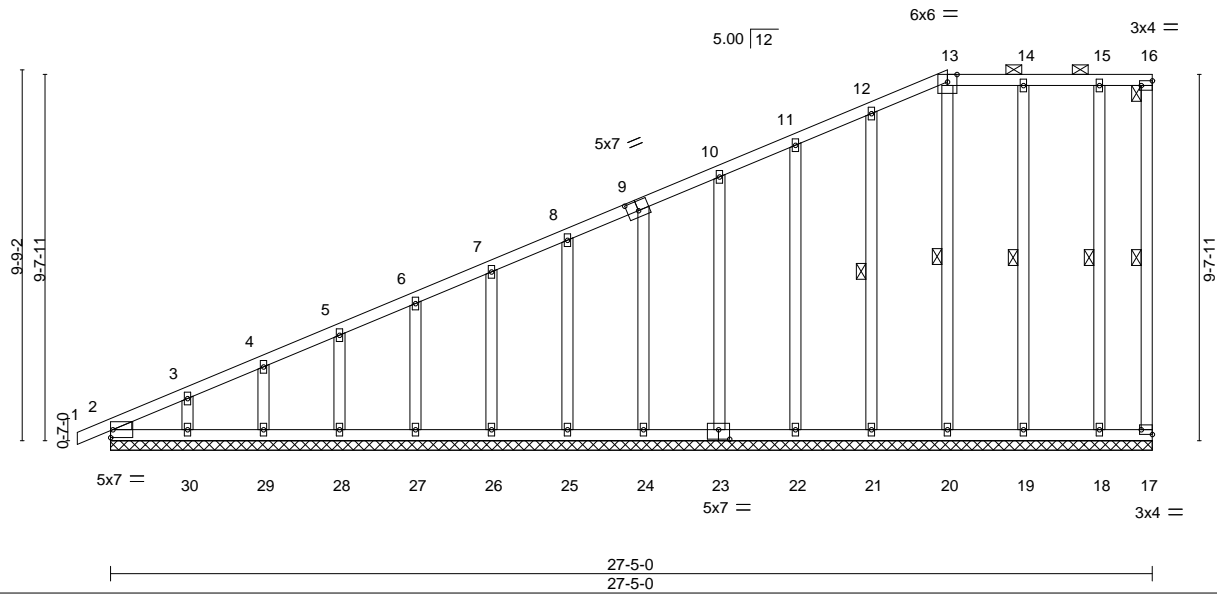
Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686535
RR118	A1	Half Hip Supported	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:15 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-11\_2XwWO6b6SVGut\_3b\_nuNunKXn19NEnT?5l\_5yMHso

-0-10-8 22-0-5 27-5-0  
 0-10-8 22-0-5 5-4-11



Scale = 1:60.6

Plate Offsets (X,Y)-- [9:0-3-8,0-3-0], [16:Edge,0-1-8], [17:Edge,0-1-8], [23:0-3-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.40	Vert(LL) -0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.17	Vert(CT) -0.00	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT) -0.01	17	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S						
							Weight: 160 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  
 WEDGE  
 Left: 2x3 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 13-16.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 23-24.  
 WEBS 1 Row at midpt 16-17, 13-20, 12-21, 14-19, 15-18

**REACTIONS.**

All bearings 27-5-0.  
 (lb) - Max Horz 2=410(LC 5)  
 Max Uplift All uplift 100 lb or less at joint(s) 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 19, 18  
 Max Grav All reactions 250 lb or less at joint(s) 17, 2, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 19, 18

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

TOP CHORD 2-3=-364/37, 3-4=-315/30, 4-5=-291/28, 5-6=-266/25

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 19, 18.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 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

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



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Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686536
RR118	A2	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:16 2021 Page 1

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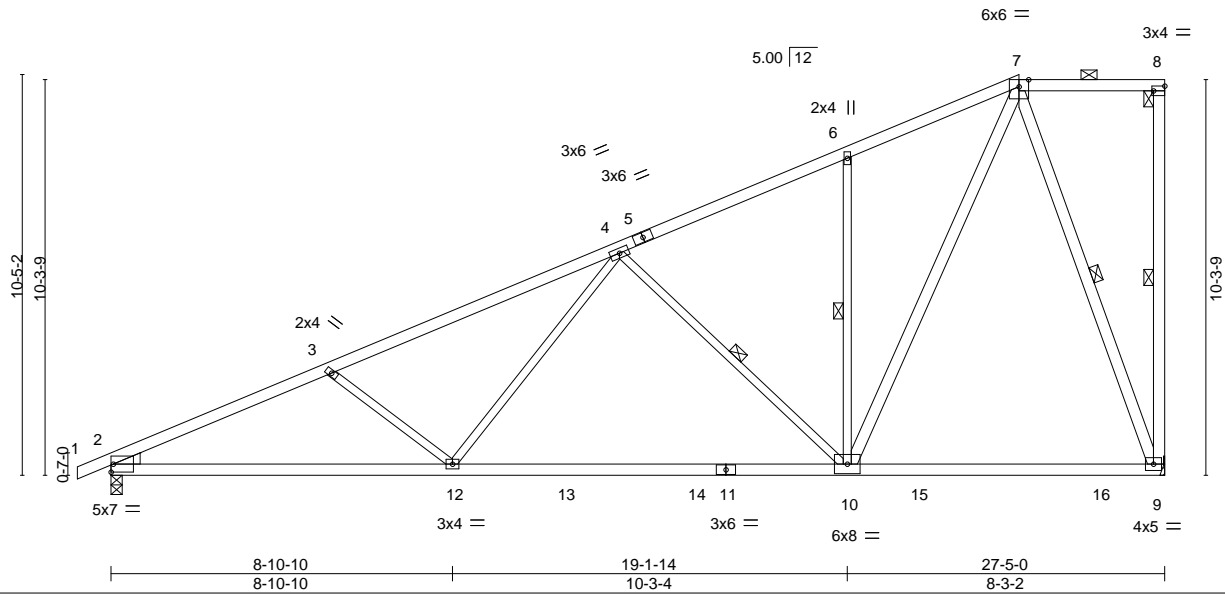
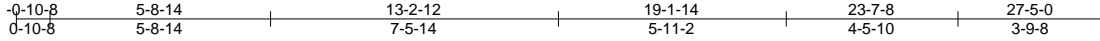


Plate Offsets (X,Y)-- [8:Edge,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.25 10-12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.44 10-12	>737	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.05 9	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S	Wind(LL)	0.08 12	>999	240		
								Weight: 124 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF 2100F 1.8E  
 WEBS 2x3 SPF No.2 \*Except\*  
 8-9,7-10,7-9: 2x4 SPF No.2

WEDGE  
 Left: 2x4 SPF No.2

**REACTIONS.**

(size) 9=Mechanical, 2=0-3-8  
 Max Horz 2=438(LC 5)  
 Max Uplift 9=-206(LC 8), 2=-209(LC 8)  
 Max Grav 9=1339(LC 2), 2=1351(LC 2)

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

TOP CHORD 2-3=-2487/397, 3-4=-2228/319, 4-6=-1137/207, 6-7=-1098/296  
 BOT CHORD 2-12=-509/2212, 10-12=-296/1549, 9-10=-144/407  
 WEBS 3-12=-392/245, 4-12=-35/718, 4-10=-817/277, 6-10=-342/185, 7-10=-296/1386,  
 7-9=-1172/225

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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) 9=206, 2=209.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017





Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686538
RR118	A4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:18 2021 Page 1

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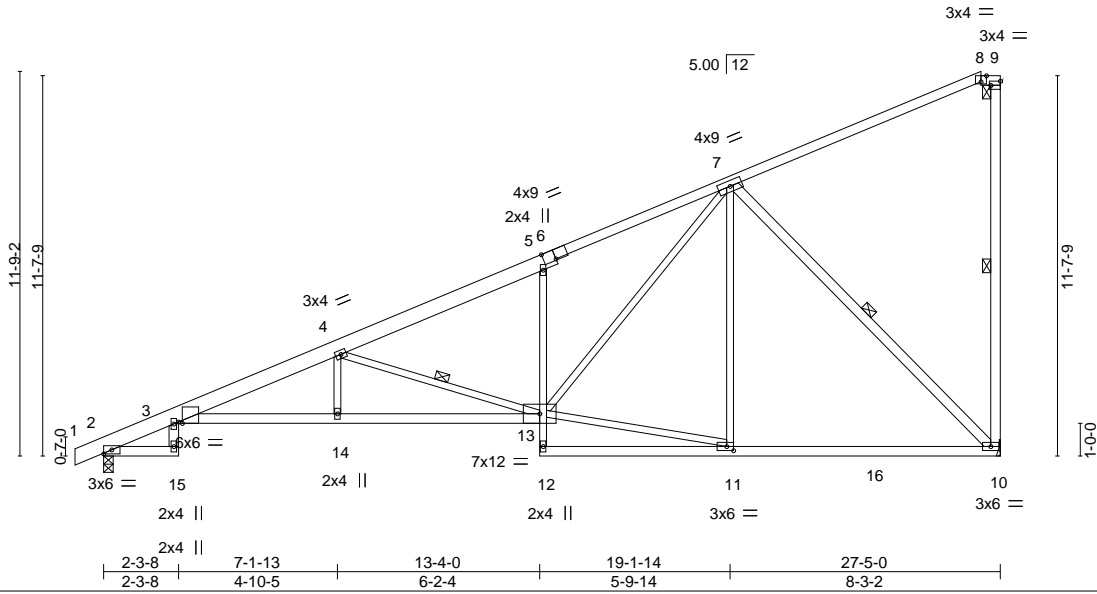


Plate Offsets (X,Y)-- [3:0-1-6,Edge], [6:0-4-6,Edge], [8:0-2-0,Edge], [9:Edge,0-1-8], [11:0-2-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.96	Vert(LL) -0.35	3-14	>920	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(CT) -0.62	3-14	>525	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.83	Horz(CT) 0.36	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.33	3-14	>986	240		
							Weight: 141 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
 1-6: 2x6 SP 2400F 2.0E  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 3-13: 2x4 SPF 2100F 1.8E, 5-12: 2x3 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\*  
 9-10,3-15,7-10: 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

(size) 10=Mechanical, 2=0-3-8  
 Max Horz 2=470(LC 8)  
 Max Uplift 10=-317(LC 8), 2=-155(LC 8)  
 Max Grav 10=1304(LC 2), 2=1329(LC 2)

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

TOP CHORD 2-3=-708/0, 3-4=-3462/508, 4-5=-2057/232, 5-7=-1982/322  
 BOT CHORD 3-14=-893/3325, 13-14=-893/3325, 5-13=-277/161, 10-11=-243/964  
 WEBS 4-14=0/268, 4-13=-1608/446, 11-13=-220/950, 7-13=-366/1340, 7-11=0/302,  
 7-10=-1354/341

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=317, 2=155.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



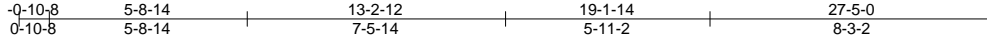


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686540
RR118	A6	Monopitch	1	1		

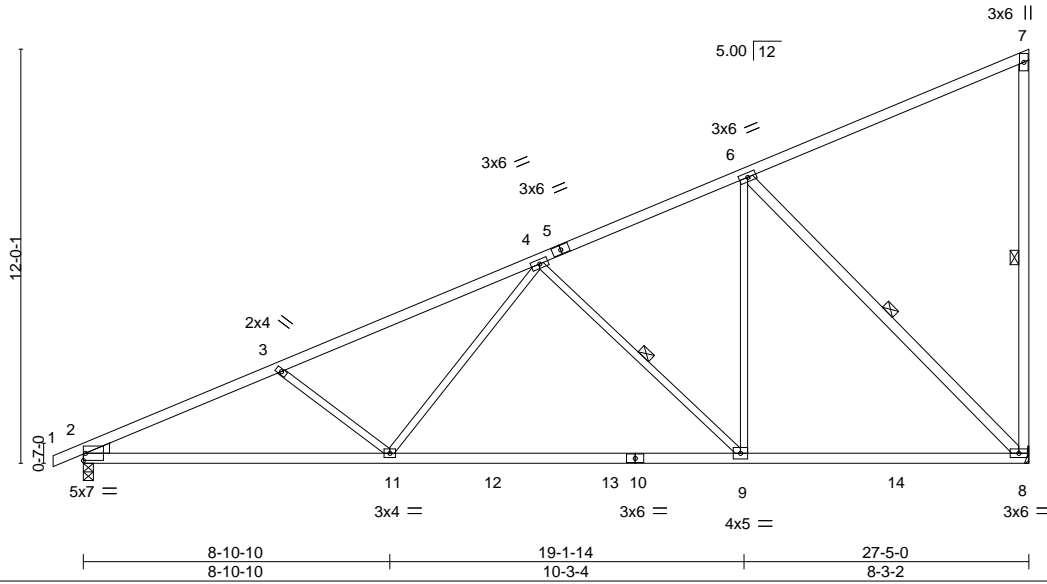
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:20 2021 Page 1

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Scale = 1:66.8



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	2-0-0	TC 0.82	Vert(LL) -0.26	9-11	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.59	Vert(CT) -0.45	9-11	>720	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.87	Horz(CT) 0.06	8	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.08	9-11	>999	240		
	Code IRC2018/TPI2014						Weight: 115 lb	FT = 10%

**LUMBER-**

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

WEDGE  
 Left: 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

(size) 8=Mechanical, 2=0-3-8  
 Max Horz 2=478(LC 8)  
 Max Uplift 8=329(LC 8), 2=150(LC 8)  
 Max Grav 8=1329(LC 2), 2=1354(LC 2)

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

TOP CHORD 2-3=-2502/266, 3-4=-2238/181, 4-6=-1142/65  
 BOT CHORD 2-11=-656/2227, 9-11=-423/1549, 8-9=-239/1001  
 WEBS 3-11=-407/260, 4-11=-51/728, 4-9=-766/256, 6-9=-56/968, 6-8=-1411/336

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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, with BCDL = 10.0psf.
- 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) 8=329, 2=150.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686541
RR118	B1	Monopitch	7	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:21 2021 Page 1

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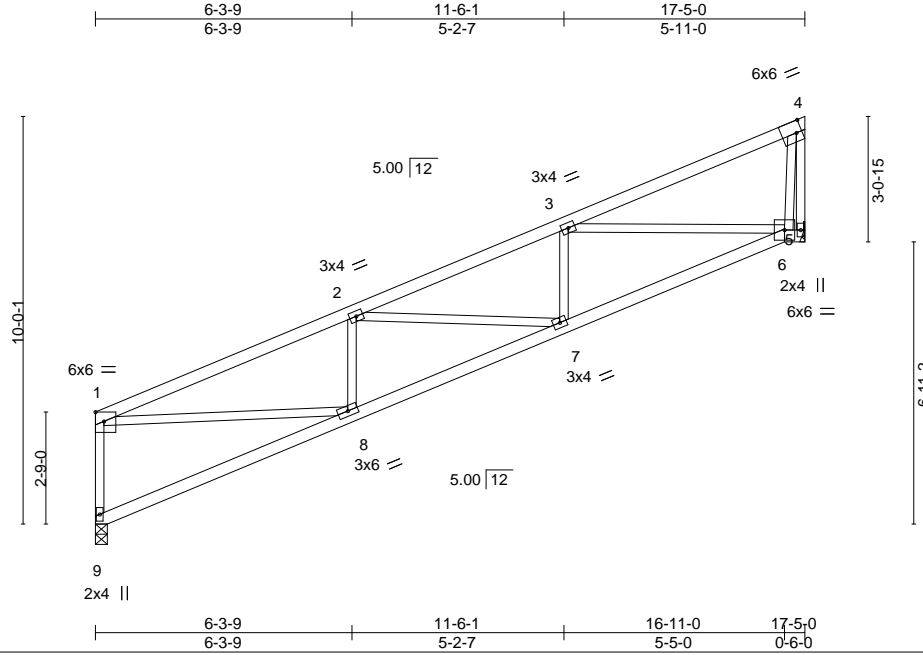


Plate Offsets (X,Y)-- [1:Edge,0-2-12], [4:0-1-11,Edge]

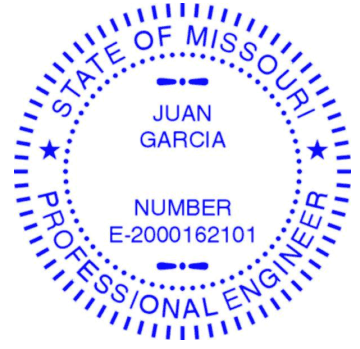
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.60	Vert(LL) -0.07	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT) -0.13	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.88	Horz(CT) 0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.05	7-8	>999	240	Weight: 66 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-7-5 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	

**REACTIONS.** (size) 9=0-3-8, 5=Mechanical  
 Max Horz 9=231(LC 5)  
 Max Uplift 5=-89(LC 8)  
 Max Grav 9=774(LC 1), 5=774(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-9=-732/83, 1-2=-1484/118, 2-3=-1430/133, 4-5=-702/54  
 BOT CHORD 7-8=-256/1428, 6-7=-196/1372  
 WEBS 1-8=-68/1258, 2-8=-402/105, 3-6=-1138/181, 4-6=-10/575

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



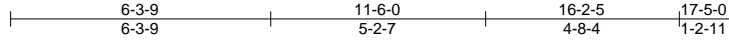
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686542
RR118	B2	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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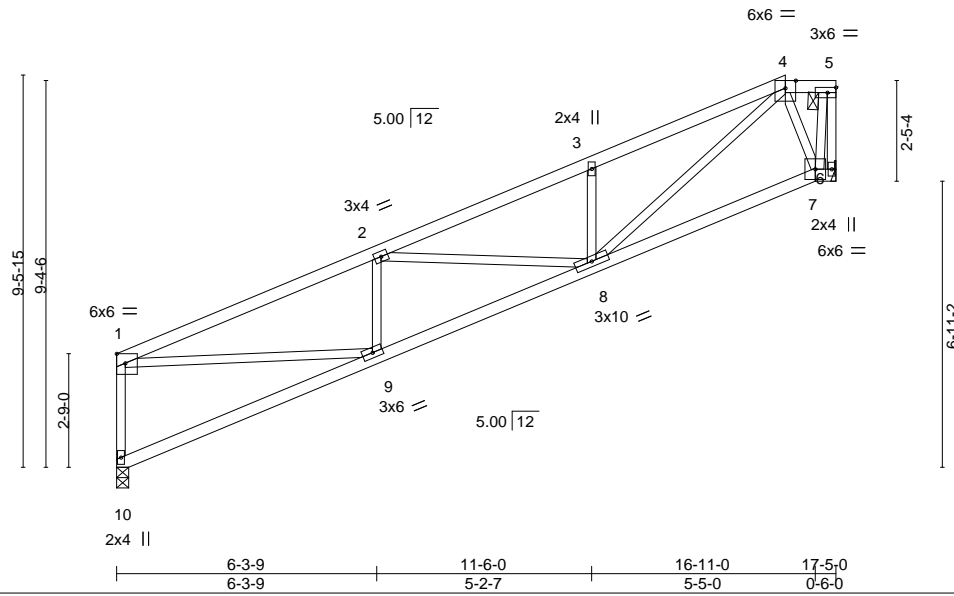


Plate Offsets (X,Y)-- [1:Edge,0-2-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	-0.07	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.40	Vert(CT)	-0.13	9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.02	6	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S	Wind(LL)	0.05	8-9	>999	240	Weight: 67 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 10=0-3-8, 6=Mechanical  
 Max Horz 10=211(LC 5)  
 Max Uplift 6=-74(LC 8)  
 Max Grav 10=774(LC 1), 6=774(LC 1)

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

TOP CHORD 1-10=-731/84, 1-2=-1490/121, 2-3=-1405/129, 3-4=-1386/188, 5-6=-750/43  
 BOT CHORD 8-9=-251/1435, 7-8=-54/393  
 WEBS 1-9=-71/1266, 2-9=-404/106, 3-8=-320/101, 4-8=-176/1213, 4-7=-606/110, 5-7=-52/766

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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.
- Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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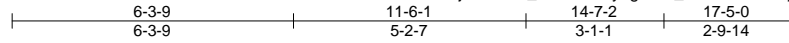
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686543
RR118	B3	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:23 2021 Page 1

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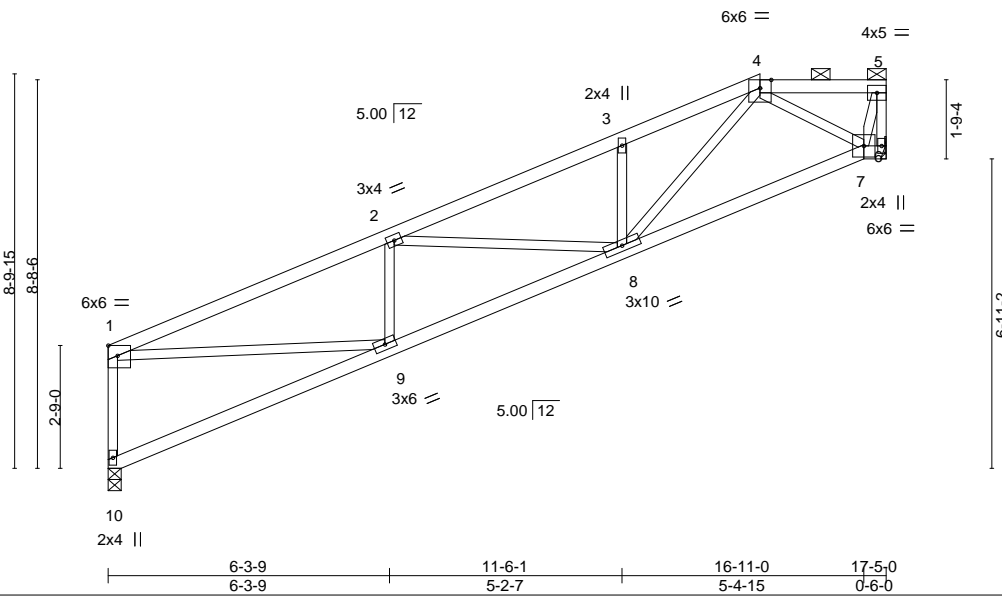


Plate Offsets (X,Y)-- [1:Edge,0-2-12]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.52	Vert(LL) -0.06	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.39	Vert(CT) -0.13	9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.44	Horz(CT) 0.03	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.06	8-9	>999	240	Weight: 65 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 10=0-3-8, 6=Mechanical  
 Max Horz 10=239(LC 5)  
 Max Uplift 10=-79(LC 8), 6=-162(LC 8)  
 Max Grav 10=774(LC 1), 6=774(LC 1)

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

TOP CHORD 1-10=-731/194, 1-2=-1492/325, 2-3=-1396/319, 3-4=-1352/384, 5-6=-747/117  
 BOT CHORD 8-9=-503/1439, 7-8=-209/781  
 WEBS 1-9=-248/1269, 2-9=-407/181, 3-8=-254/138, 4-8=-254/806, 4-7=-597/195, 5-7=-107/674

**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) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10 except (jt=lb) 6=162.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 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

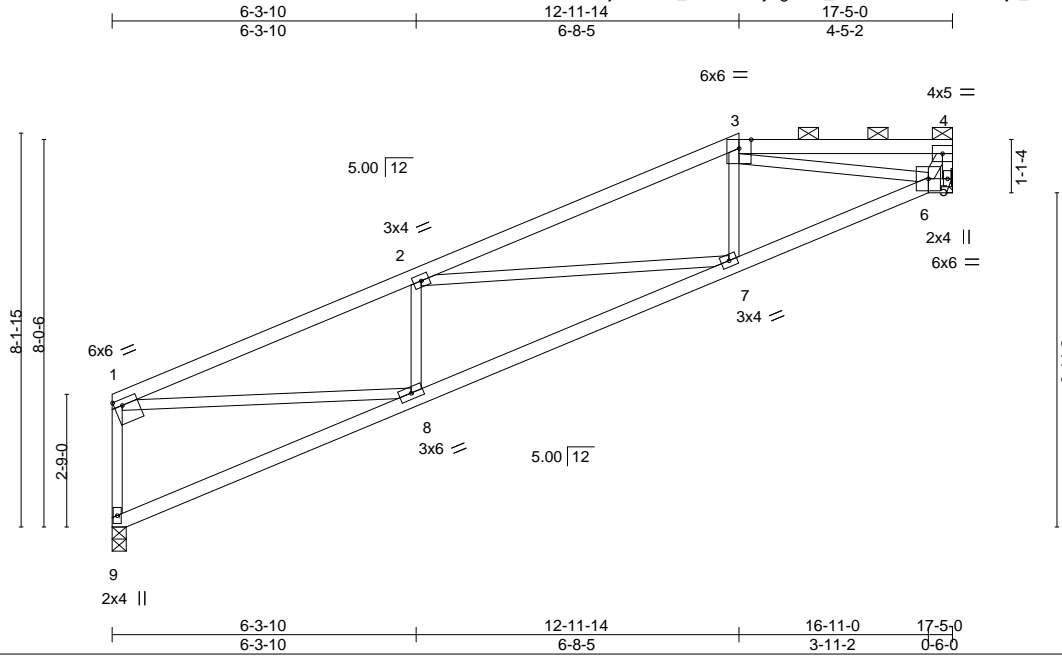


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686544
RR118	B4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:24 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAz\_170-GI1RQ?d1TtaDrG3j5\_eulHmla9o?mNj6Yumkp4yMHsf



Scale: 1/4"=1'

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

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.56	Vert(LL) -0.07	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.14	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.45	Horz(CT) 0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.06	7-8	>999	240	Weight: 63 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-15 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 8-4-12 oc bracing: 7-8.

**REACTIONS.**

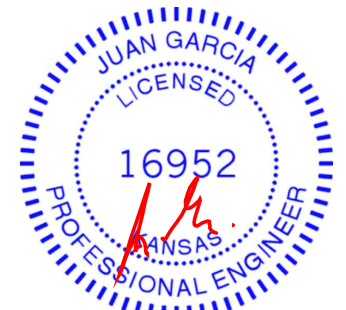
(size) 9=0-3-8, 5=Mechanical  
 Max Horz 9=211(LC 5)  
 Max Uplift 9=-80(LC 8), 5=-133(LC 8)  
 Max Grav 9=774(LC 1), 5=774(LC 1)

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

TOP CHORD 1-9=-732/187, 1-2=-1524/320, 2-3=-1282/242, 3-4=-377/67, 4-5=-703/116  
 BOT CHORD 7-8=-489/1480, 6-7=-275/1190  
 WEBS 1-8=-247/1308, 2-8=-405/192, 3-7=-8/290, 3-6=-730/196, 4-6=-114/630

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 5=133.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 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



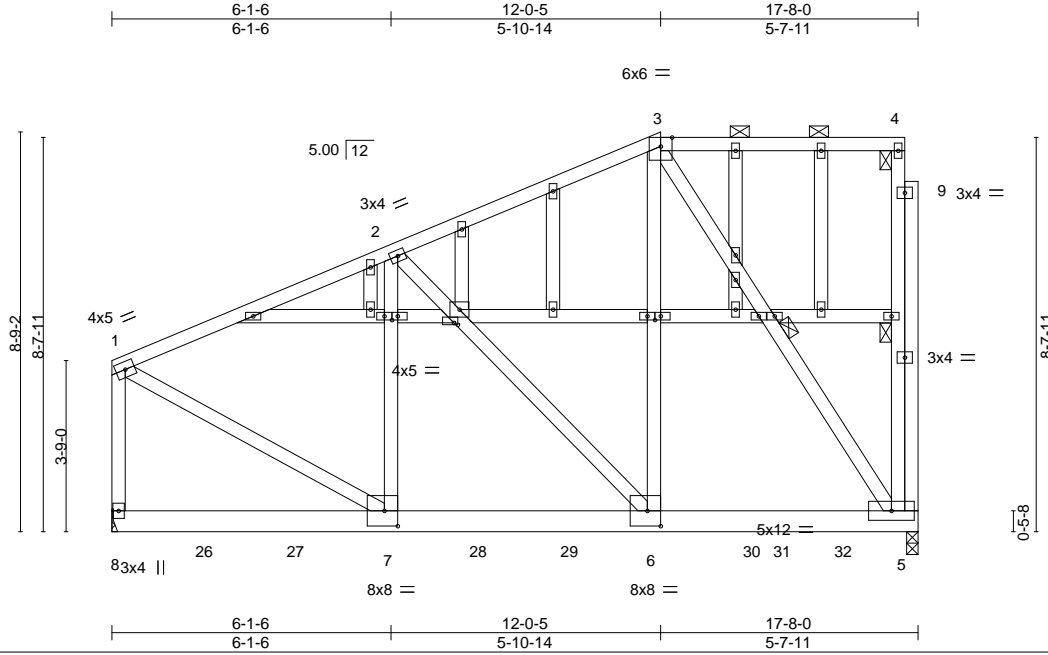
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686545
RR118	B5	GABLE	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:25 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-kybqDLefEaj4SQevfh97IUJXuZ9\_VqGmYWHLWyMHse



Scale = 1:50.5

Plate Offsets (X,Y)-- [6:0-3-8,0-4-0], [7:0-3-8,0-4-0], [11:0-1-8,0-1-0], [12:0-1-1,0-0-8], [13:0-1-8,0-1-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.26	Vert(LL) -0.05	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) -0.08	7-8	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.49	Horz(CT) 0.01	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03	7-8	>999	240		
							Weight: 296 lb	FT = 10%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x6 SP 2400F 2.0E  
 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.): 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 4-5, 3-5

**REACTIONS.** (size) 5=0-3-0, 8=Mechanical  
 Max Horz 8=342(LC 5)  
 Max Uplift 5=-393(LC 5), 8=-318(LC 8)  
 Max Grav 5=3309(LC 1), 8=3182(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2764/287, 2-3=-1902/249, 1-8=-2603/299  
 BOT CHORD 7-8=-324/90, 6-7=-395/2485, 5-6=-264/1632  
 WEBS 2-7=-130/866, 2-6=-1152/209, 3-6=-262/2789, 3-5=-2946/341, 1-7=-248/2779

- 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.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable studs spaced at 2-0-0 oc.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=393, 8=318.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Continued on page 2

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686545
RR118	B5	GABLE	1	<b>2</b>	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:25 2021 Page 2  
 ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-kybqDLefEaj4SQevfh97IUJXuZ9\_VqGGmYWHLWyMHse

**NOTES-**

- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 619 lb down and 59 lb up at 2-0-0, 619 lb down and 63 lb up at 4-0-0, 619 lb down and 63 lb up at 6-0-0, 619 lb down and 63 lb up at 8-0-0, 619 lb down and 63 lb up at 10-0-0, 619 lb down and 63 lb up at 12-0-0, and 619 lb down and 63 lb up at 14-0-0, and 619 lb down and 63 lb up at 16-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Studding applied to ply: 1(Front)

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-70, 3-4=-70, 5-8=-20  
 Concentrated Loads (lb)  
 Vert: 7=-619(B) 6=-619(B) 26=-619(B) 27=-619(B) 28=-619(B) 29=-619(B) 30=-619(B) 32=-619(B)

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686546
RR118	C1	HALF HIP GIRDER	1	<b>2</b>	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:27 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-4=-70, 4-6=-70, 2-13=-20, 3-10=-20, 7-8=-20
- Concentrated Loads (lb)
  - Vert: 10=-230(F) 12=-449(F) 14=-230(F) 15=-230(F) 16=-230(F)

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686547
RR118	C2	Half Hip	1	1		
					Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:29 2021 Page 1  
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 13-8-8 16-0-0  
 4-6-7 2-3-8

Scale = 1:31.1

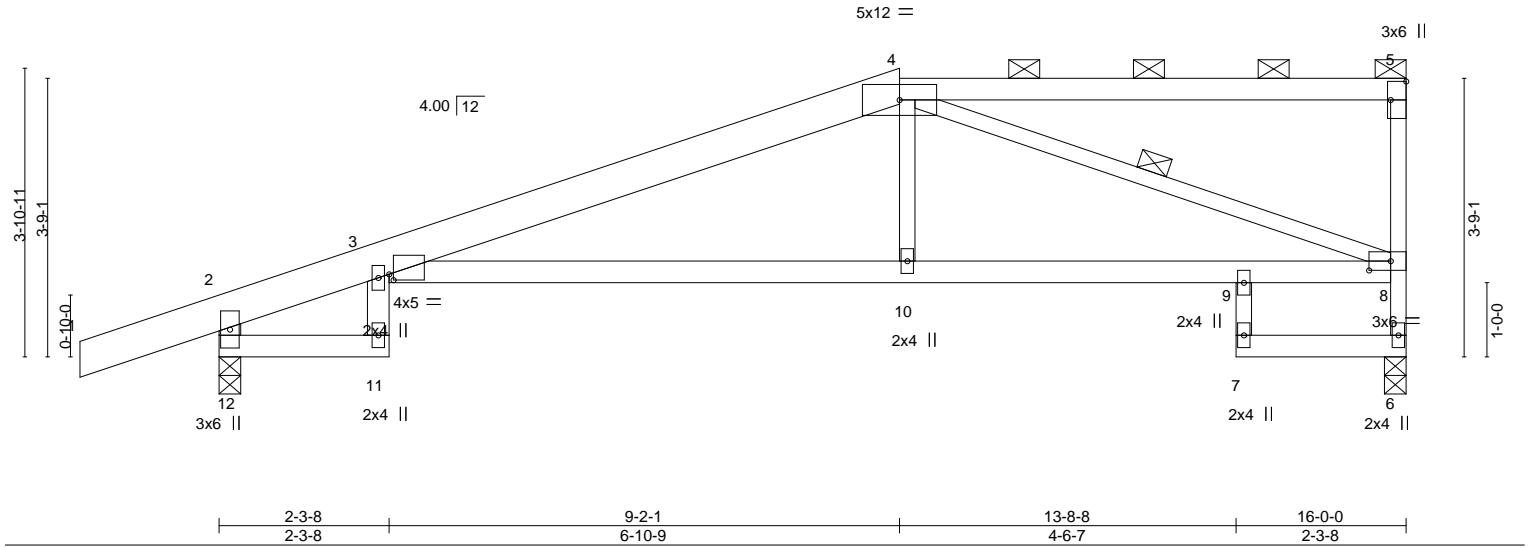


Plate Offsets (X,Y)-- [3:0-0-11,0-0-15], [5:Edge,0-2-8], [8:0-3-8,0-1-8]

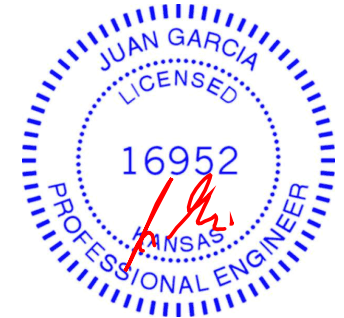
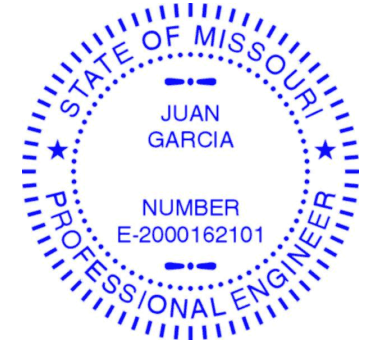
LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.72	Vert(LL) -0.28	3-10	>670	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.71	Vert(CT) -0.55	3-10	>342	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.60	Horz(CT) 0.32	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.24	3-10	>789	240	Weight: 61 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF 1650F 1.4E *Except* 4-5: 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x4 SPF No.2 *Except* 7-9: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 6-7.
WEBS 2x3 SPF No.2 *Except* 3-11,2-12: 2x4 SPF No.2	WEBS 1 Row at midpt 4-8

**REACTIONS.** (size) 6=0-3-8, 12=0-3-8  
 Max Horz 12=166(LC 5)  
 Max Uplift 6=-134(LC 4), 12=-216(LC 4)  
 Max Grav 6=700(LC 1), 12=859(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-263/11, 3-4=-1296/218, 6-8=-673/147, 2-12=-857/235  
 BOT CHORD 3-10=-212/1223, 9-10=-207/1229, 8-9=-215/1232  
 WEBS 4-10=0/317, 4-8=-1250/226

- 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) 6=134, 12=216.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686548
RR118	C3	Half Hip Girder	1	2		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:30 2021 Page 1  
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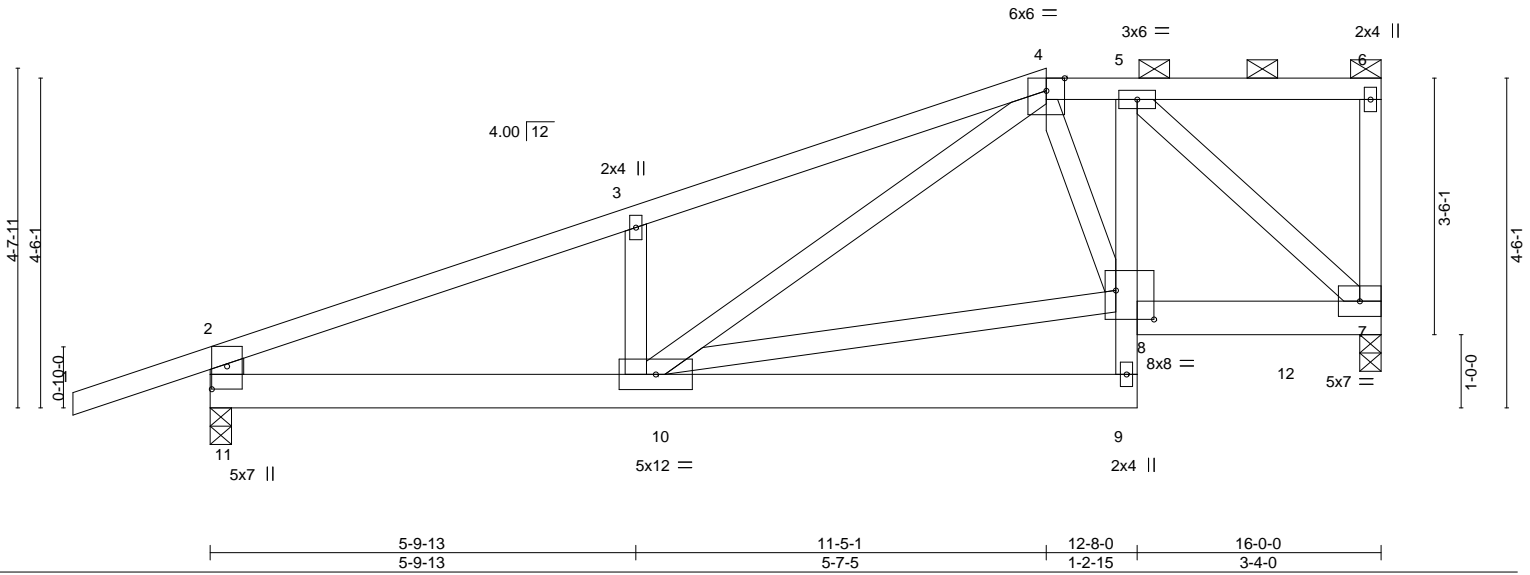


Plate Offsets (X,Y)-- [8:0-6-4,0-4-12], [11:0-3-12,0-2-8]

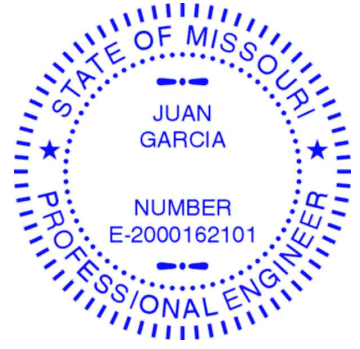
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.38	Vert(LL) -0.04	9-10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.55	Vert(CT) -0.08	9-10	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.20	Horz(CT) 0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03	9-10	>999	240		
							Weight: 183 lb	FT = 10%

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

**REACTIONS.** (size) 7=0-3-8, 11=0-3-8  
 Max Horz 11=178(LC 5)  
 Max Uplift 7=444(LC 4), 11=238(LC 4)  
 Max Grav 7=3641(LC 1), 11=1074(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1633/234, 3-4=-1560/283, 4-5=-1573/257, 2-11=-880/245  
 BOT CHORD 10-11=-253/1477, 5-8=-174/1327, 7-8=-233/1733  
 WEBS 3-10=-323/200, 4-10=-335/301, 8-10=-219/1518, 4-8=-124/472, 5-7=-2150/306


- 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, 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-3-0 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; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWF RS (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) 7=444, 11=238.
  - This truss 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) 3162 lb down and 338 lb up at 14-9-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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LOAD CASE(S) Standard  
 Continued on page 2

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686548
RR118	C3	Half Hip Girder	1	<b>2</b>	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:30 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-2=-70, 2-4=-70, 4-6=-70, 9-11=-20, 7-8=-20
- Concentrated Loads (lb)
  - Vert: 12=-3162(B)

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

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

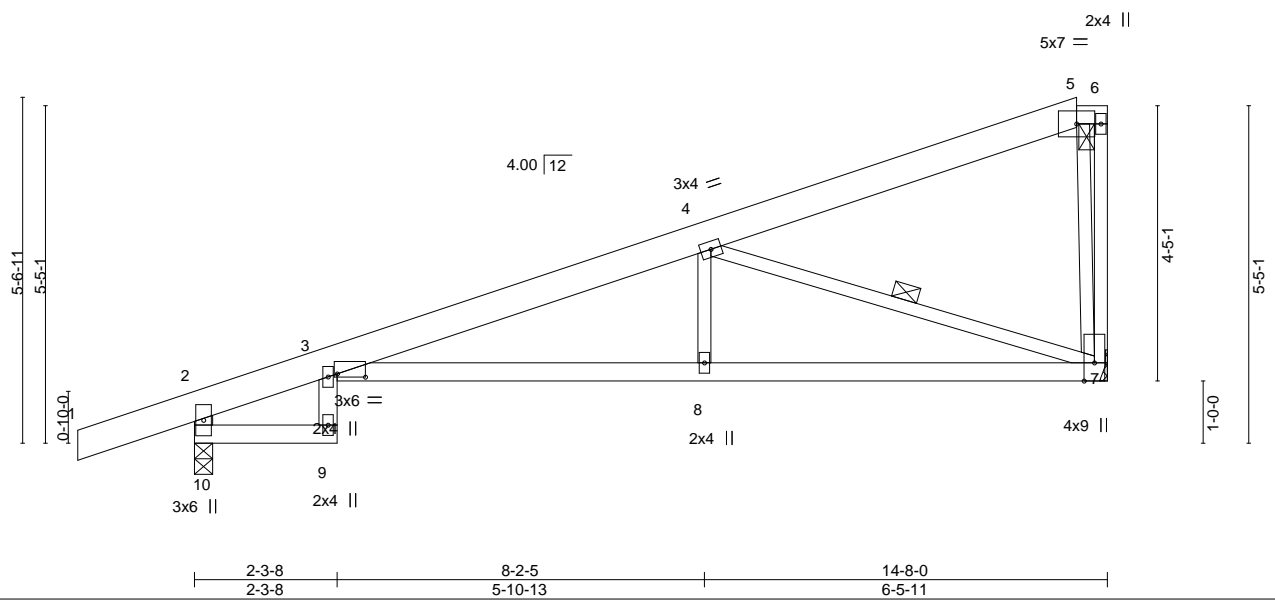


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686549
RR118	C4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:31 2021 Page 1

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Scale = 1:37.0

Plate Offsets (X,Y)--	[3:0-5-7,0-0-10]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.87	Vert(LL) -0.19	3-8	>888	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.61	Vert(CT) -0.38	3-8	>461	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.58	Horz(CT) 0.21	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.13	3-8	>999	240		
							Weight: 62 lb	FT = 10%

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

**REACTIONS.** (size) 7=Mechanical, 10=0-3-8  
 Max Horz 10=168(LC 5)  
 Max Uplift 7=-39(LC 8), 10=-86(LC 4)  
 Max Grav 7=639(LC 1), 10=800(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-266/0, 3-4=-1338/61, 2-10=-795/103  
 BOT CHORD 3-8=-76/1271, 7-8=-75/1270  
 WEBS 4-8=0/287, 4-7=-1314/110

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 10.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686550
RR118	C5	Monopitch	7	1		

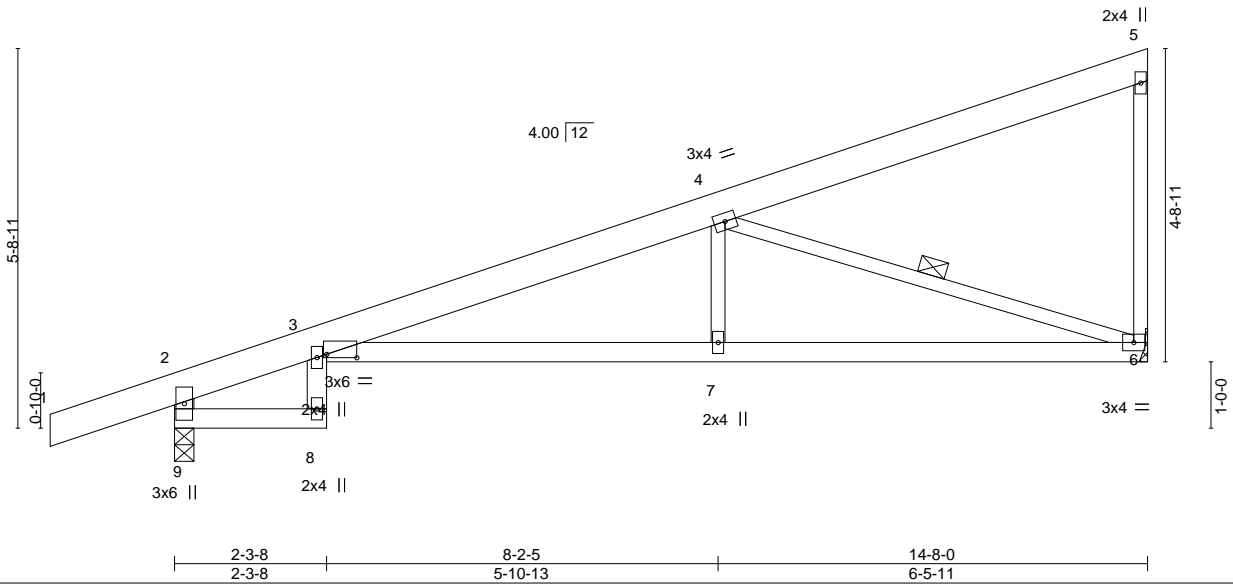
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:31 2021 Page 1

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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.87	Vert(LL) -0.19	3-7	>894	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.61	Vert(CT) -0.37	3-7	>463	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.59	Horz(CT) 0.21	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.13	3-7	>999	240		
							Weight: 59 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 3-8,2-9: 2x4 SPF No.2	WEBS 1 Row at midpt 4-6

**REACTIONS.** (size) 6=Mechanical, 9=0-3-8  
 Max Horz 9=174(LC 5)  
 Max Uplift 6=-43(LC 8), 9=-86(LC 4)  
 Max Grav 6=639(LC 1), 9=800(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-271/0, 3-4=-1347/62, 2-9=-795/102  
 BOT CHORD 3-7=-79/1281, 6-7=-78/1280  
 WEBS 4-7=0/287, 4-6=-1345/118

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



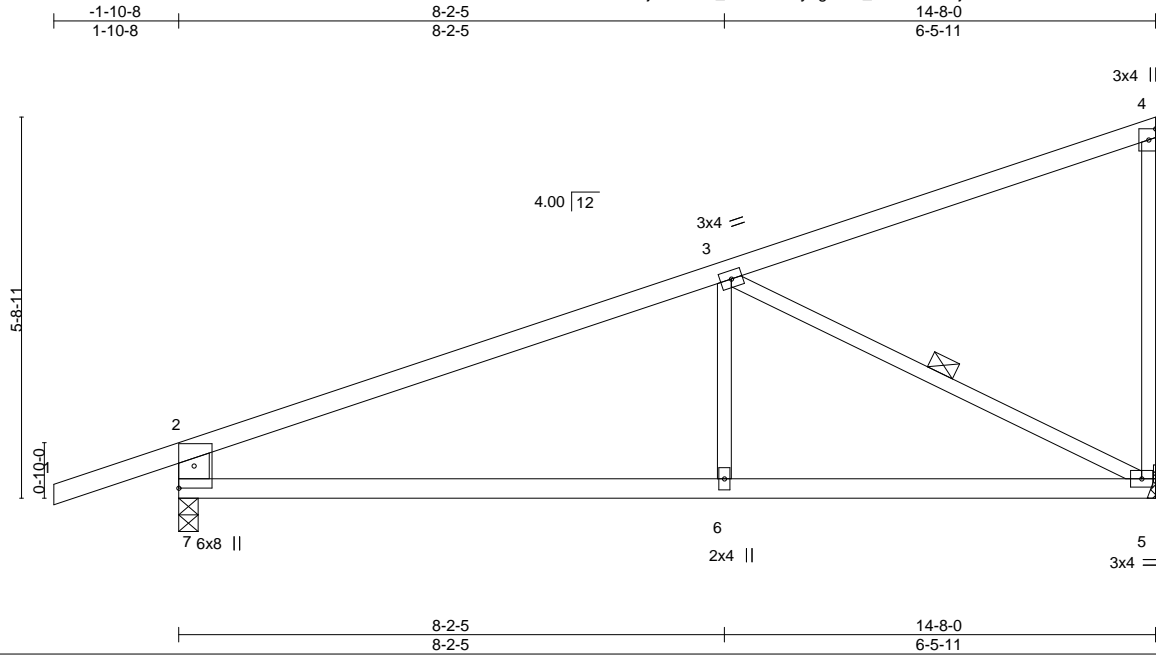
November 8, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686551
RR118	C6	Monopitch	3	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:32 2021 Page 1  
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Scale = 1:34.6

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	2-0-0	TC 0.88	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.46	Vert(LL) -0.09 6-7 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.43	Vert(CT) -0.18 6-7 >934 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.02 5 n/a n/a	Weight: 50 lb	FT = 10%
	Code IRC2018/TPI2014		Wind(LL) 0.03 5-6 >999 240		

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-7: 2x6 SPF No.2	WEBS 1 Row at midpt 3-5

**REACTIONS.** (size) 5=Mechanical, 7=0-3-8  
 Max Horz 7=190(LC 5)  
 Max Uplift 5=-43(LC 8), 7=-89(LC 4)  
 Max Grav 5=634(LC 1), 7=803(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-928/38, 2-7=-715/134  
 BOT CHORD 6-7=-49/789, 5-6=-49/789  
 WEBS 3-6=0/317, 3-5=-873/89

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



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686552
RR118	C7	Monopitch	5	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:33 2021 Page 1

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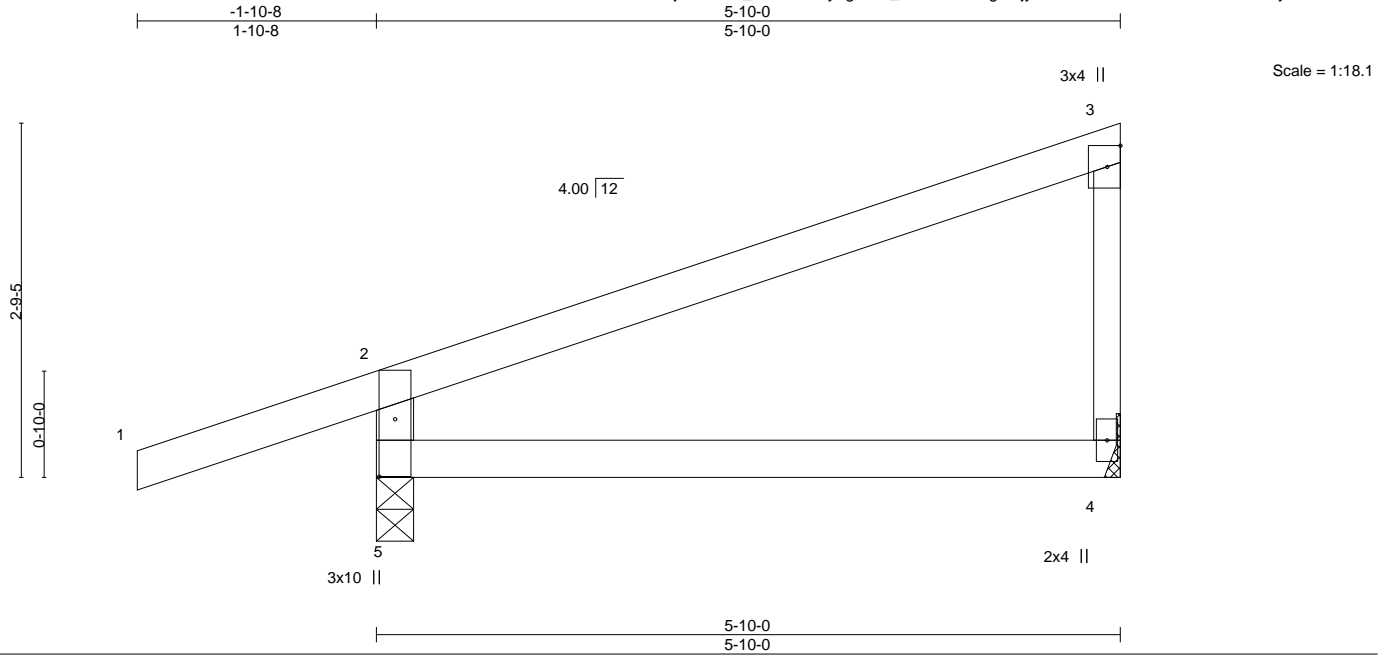


Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.36	Vert(LL) -0.04	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.25	Vert(CT) -0.08	4-5	>846	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-R	Wind(LL) 0.01	4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-10-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 3-4: 2x3 SPF No.2	

**REACTIONS.** (size) 4=Mechanical, 5=0-3-8  
 Max Horz 5=120(LC 5)  
 Max Uplift 4=49(LC 8), 5=138(LC 4)  
 Max Grav 4=226(LC 1), 5=418(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=370/176

- 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=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.



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686553
RR118	C8	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:34 2021 Page 1  
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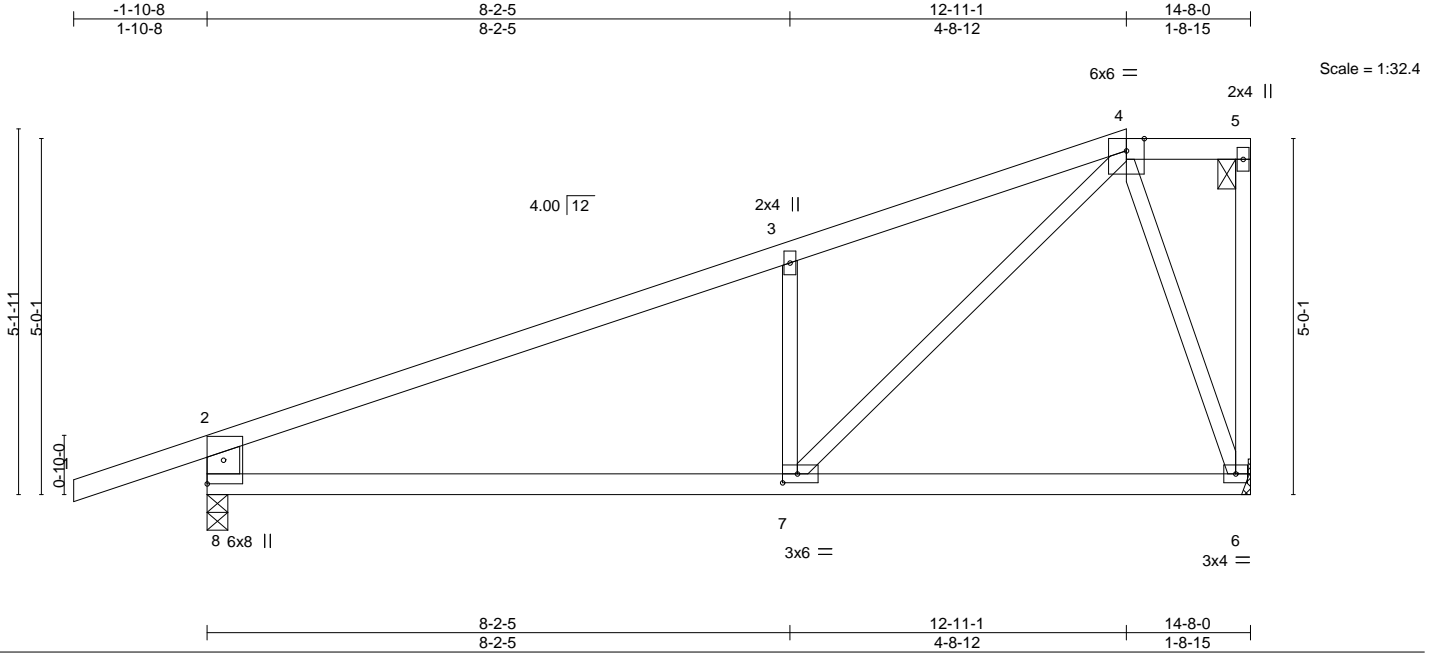


Plate Offsets (X,Y)--	[7:0-2-8,0-1-8]
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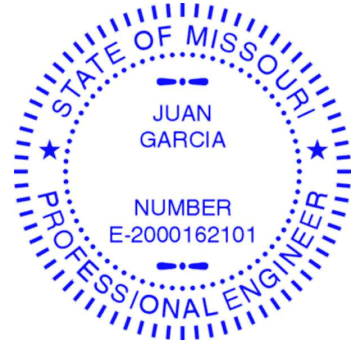
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.90	Vert(LL) -0.09	7-8	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.46	Vert(CT) -0.18	7-8	>933	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.35	Horz(CT) 0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03	6-7	>999	240	Weight: 52 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-8: 2x6 SPF No.2	

**REACTIONS.** (size) 6=Mechanical, 8=0-3-8  
 Max Horz 8=220(LC 5)  
 Max Uplift 6=-129(LC 4), 8=-201(LC 4)  
 Max Grav 6=634(LC 1), 8=803(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-913/142, 3-4=-873/232, 2-8=-718/247  
 BOT CHORD 7-8=-141/772  
 WEBS 3-7=-439/240, 4-7=-210/826, 4-6=-573/133

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) 6=129, 8=201.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686554
RR118	C9	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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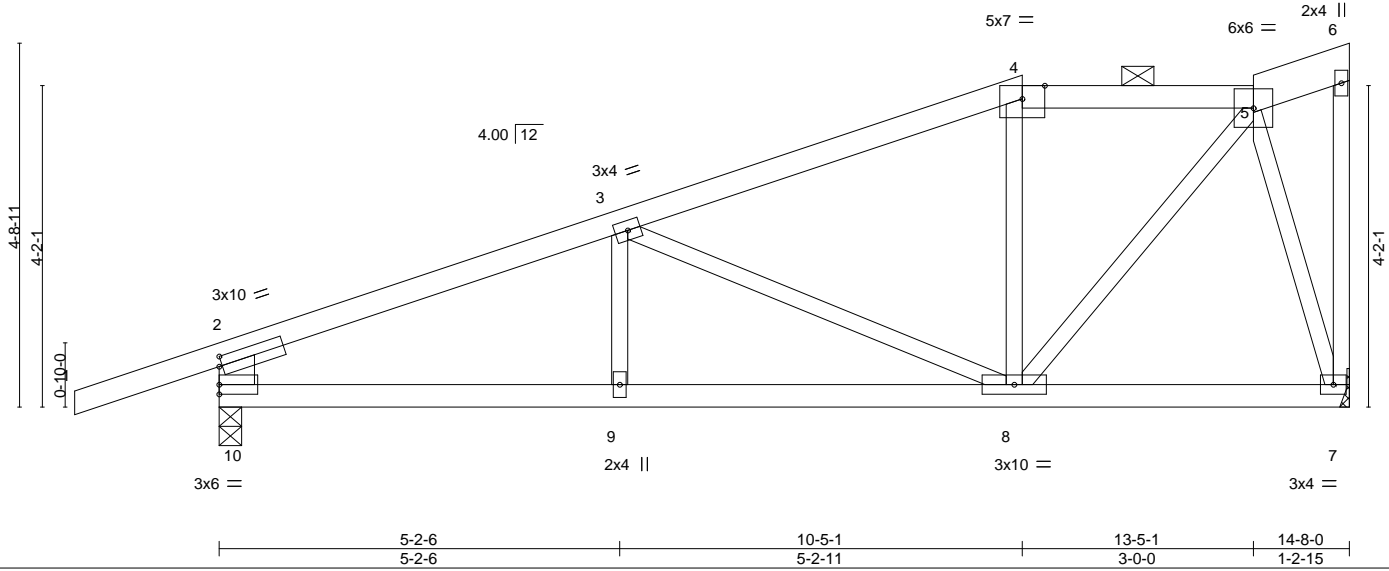


Plate Offsets (X,Y)-- [2:0-0-8,0-1-8]

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 0.82	Vert(LL)	-0.09	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.69	Vert(CT)	-0.16	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.02	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.07	8-9	>999	240	Weight: 58 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\*  
2-10: 2x6 SP DSS

**BRACING-**

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

**REACTIONS.**

(size) 7=Mechanical, 10=0-3-8  
Max Horz 10=203(LC 5)  
Max Uplift 7=-130(LC 8), 10=-204(LC 4)  
Max Grav 7=634(LC 1), 10=803(LC 1)

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

TOP CHORD 2-3=-998/169, 3-4=-584/119, 4-5=-522/138, 2-10=-697/219  
BOT CHORD 9-10=-180/869, 8-9=-180/869  
WEBS 3-8=-385/126, 5-8=-110/563, 5-7=-600/144

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=130, 10=204.
- 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.



November 8, 2021

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

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

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686555
RR118	C10	Roof Special Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:28 2021 Page 1  
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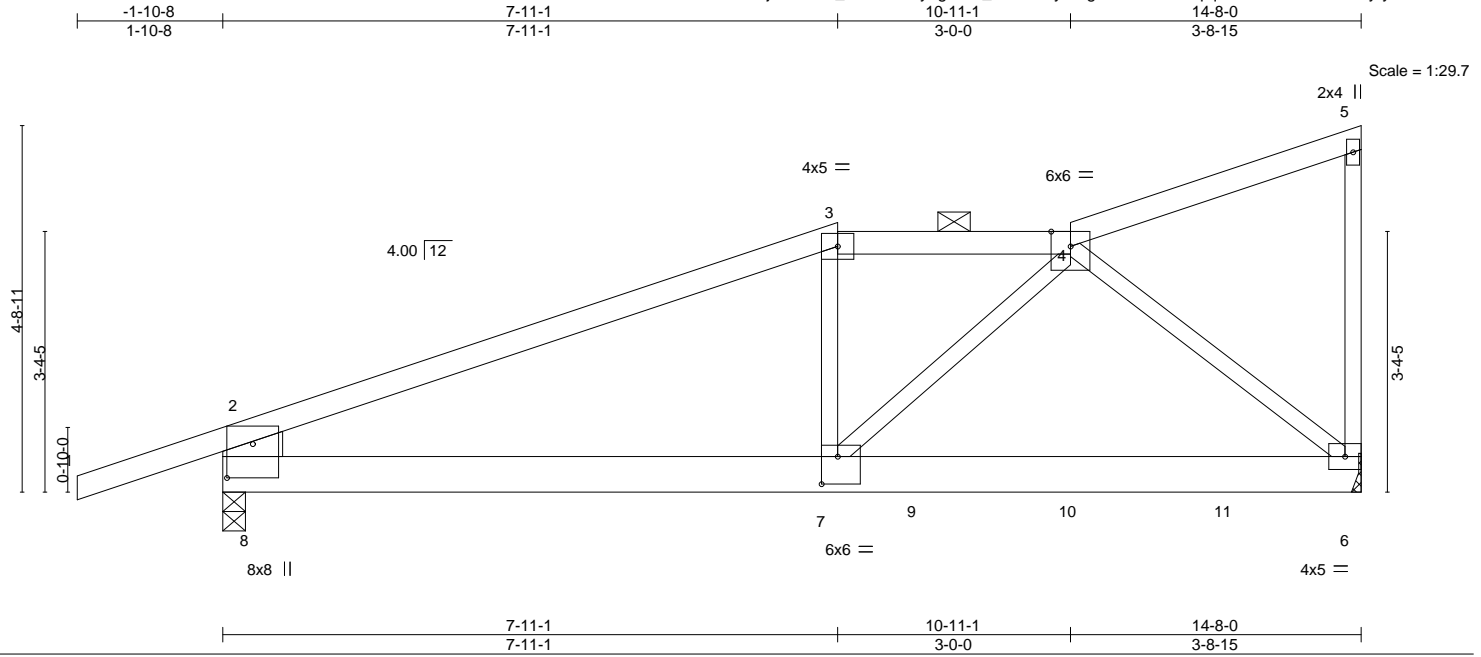


Plate Offsets (X,Y)-- [7:0-2-8,0-4-4], [8:0-5-4,0-4-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.94	Vert(LL) -0.15	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.68	Vert(CT) -0.27	6-7	>629	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.80	Horz(CT) 0.02	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.14	6-7	>999	240	Weight: 60 lb	FT = 10%

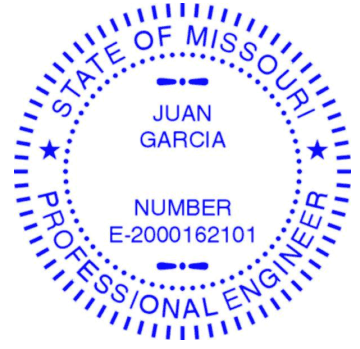
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-3: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-8-6 oc purlins, except end verticals, and 2-0-0 oc purlins (4-3-13 max.): 3-4.
BOT CHORD 2x6 SPF 1650F 1.4E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-8: 2x10 SP DSS	

**REACTIONS.** (size) 6=Mechanical, 8=0-3-8  
 Max Horz 8=204(LC 22)  
 Max Uplift 6=-381(LC 8), 8=-345(LC 4)  
 Max Grav 6=1404(LC 1), 8=1219(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1995/494, 3-4=-1781/498, 2-8=-1098/378  
 BOT CHORD 7-8=-464/1791, 6-7=-284/1107  
 WEBS 3-7=-113/352, 4-7=-252/942, 4-6=-1415/419

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Provide adequate drainage to prevent water ponding.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=381, 8=345.
  - 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) 503 lb down and 181 lb up at 7-11-1, 211 lb down and 76 lb up at 8-11-13, and 238 lb down and 83 lb up at 10-11-4, and 238 lb down and 83 lb up at 12-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).


**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20



November 8, 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 118 RR	I48686555
RR118	C10	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:28 2021 Page 2  
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**LOAD CASE(S)** Standard

Concentrated Loads (lb)

Vert: 7=-503(B) 9=-211(B) 10=-238(B) 11=-238(B)

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

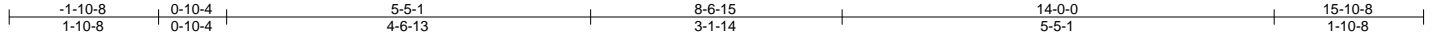


Job RR118	Truss D1	Truss Type Hip Girder	Qty 1	Ply 1	Lot 118 RR Job Reference (optional)	148686556
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:36 2021 Page 1

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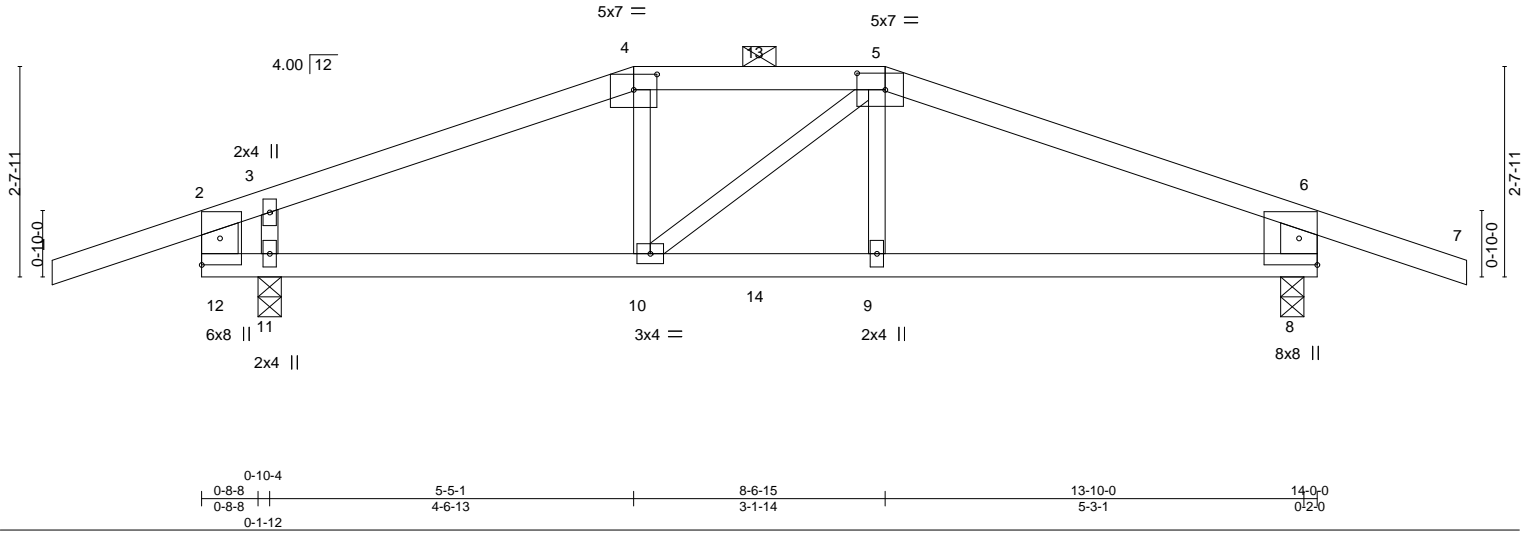


Plate Offsets (X,Y)-- [4:0-3-8,0-2-5], [5:0-4-4,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.73	Vert(LL) -0.15	9-10	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.90	Vert(CT) -0.27	9-10	>570	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.10	Horz(CT) 0.02	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.14	9-10	>999	240	Weight: 46 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF 2100F 1.8E \*Except\*  
4-5: 2x4 SPF No.2  
BOT CHORD 2x4 SPF 2100F 1.8E  
WEBS 2x3 SPF No.2 \*Except\*  
2-12,6-8: 2x6 SP DSS

**BRACING-**

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

**REACTIONS.**

(size) 8=0-3-8, 11=0-3-8  
Max Horz 11=22(LC 8)  
Max Uplift 8=-269(LC 5), 11=-303(LC 4)  
Max Grav 8=927(LC 1), 11=1021(LC 1)

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

TOP CHORD 2-3=-982/207, 3-4=-1107/265, 4-5=-971/258, 5-6=-1259/292, 2-12=-370/71, 6-8=-813/284  
BOT CHORD 11-12=-181/963, 10-11=-165/963, 9-10=-196/1118, 8-9=-196/1105  
WEBS 5-9=-23/307, 3-11=-432/212

**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) 8=269, 11=303.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 79 lb down and 64 lb up at 7-0-0 on top chord, and 197 lb down and 86 lb up at 5-5-1, and 27 lb down and 197 lb down and 86 lb up at 8-6-15 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

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



November 8, 2021

Continued on page 2

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686556
RR118	D1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:36 2021 Page 2  
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**LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 4-5=-70, 5-6=-70, 6-7=-70, 8-12=-20

Concentrated Loads (lb)

Vert: 10=-197(F) 9=-197(F) 13=-28(F) 14=-12(F)

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

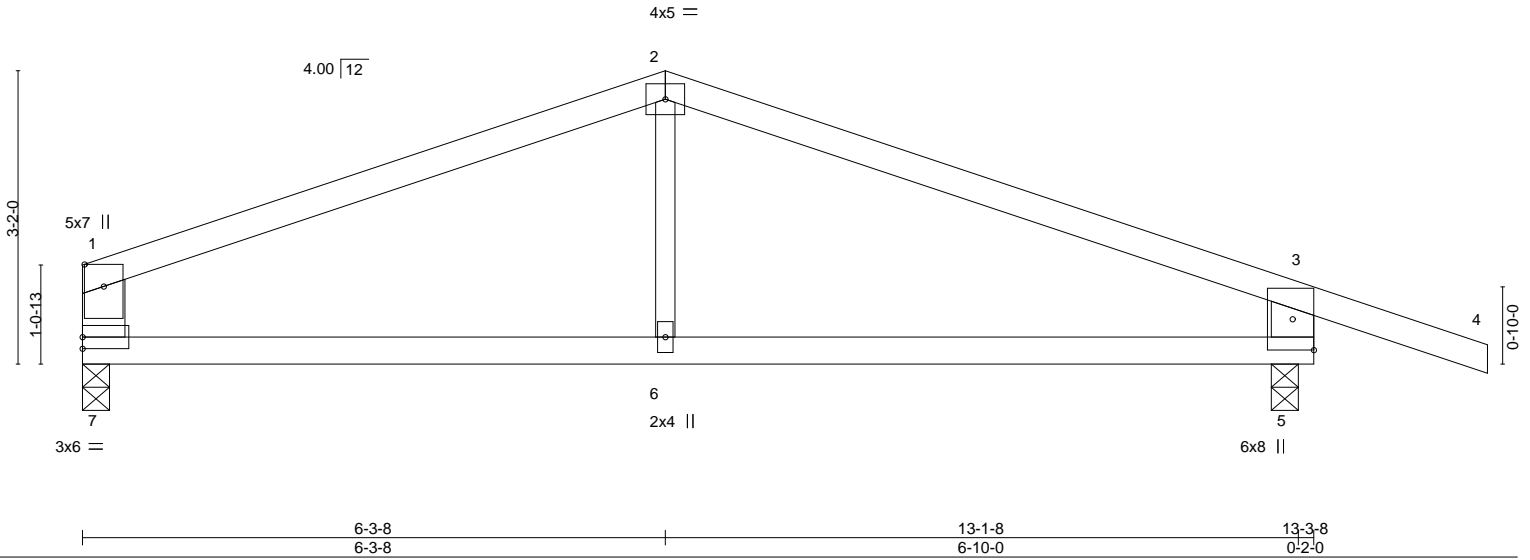
Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686557
RR118	D2	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:36 2021 Page 1  
 ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-v3l\_x5mZfZ5WH7\_1oVsiEpGld?sHaubtImgMENyMHsT



Scale = 1:24.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.74	Vert(LL) -0.10	5-6	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.55	Vert(CT) -0.20	5-6	>760	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.01	5	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.06	5-6	>999	240		Weight: 38 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-6-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SPF No.2 *Except* 2-6: 2x3 SPF No.2	

**REACTIONS.** (size) 7=0-3-8, 5=0-3-8  
 Max Horz 7=-46(LC 5)  
 Max Uplift 7=-81(LC 4), 5=-181(LC 5)  
 Max Grav 7=565(LC 1), 5=737(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-744/98, 2-3=-756/104, 1-7=-462/113, 3-5=-646/220  
 BOT CHORD 6-7=-26/630, 5-6=-26/630

- 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) 7 except (jt=lb) 5=181.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 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



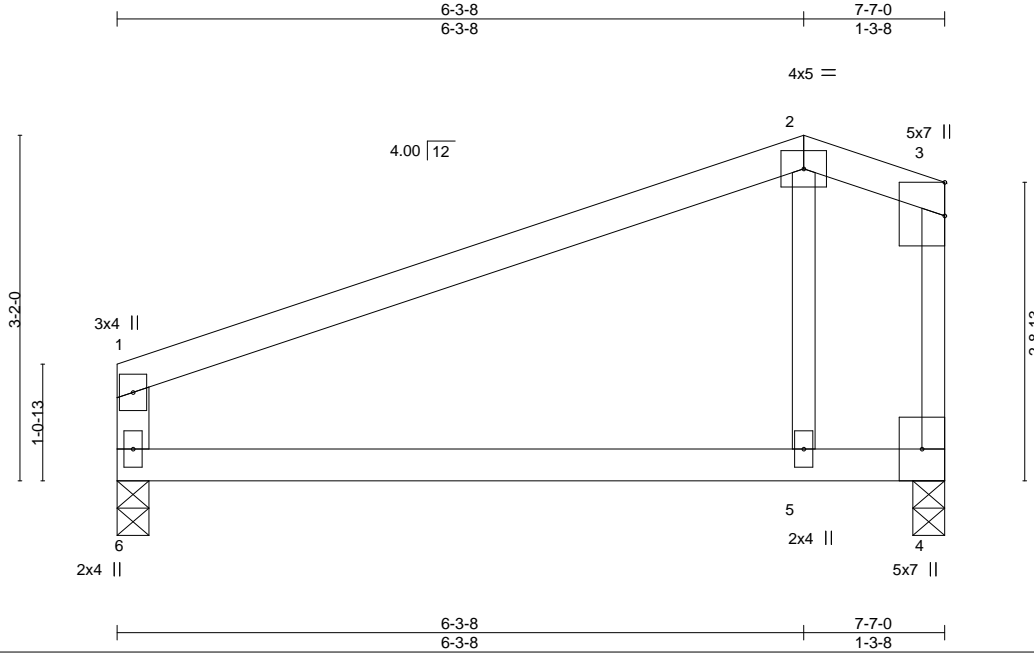
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686558
RR118	D3	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:37 2021 Page 1

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Scale = 1:21.1

Plate Offsets (X,Y)-- [3:0-3-11,0-0-0]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.64	Vert(LL) -0.07	5-6	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.34	Vert(CT) -0.17	5-6	>529	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.03	Horz(CT) 0.00	4	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL) 0.06	5-6	>999	240		Weight: 23 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\*  
 1-6: 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) 6=0-3-8, 4=0-3-8  
 Max Horz 6=100(LC 5)  
 Max Uplift 6=-53(LC 4), 4=-55(LC 4)  
 Max Grav 6=330(LC 1), 4=330(LC 1)

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

TOP CHORD 1-6=-257/90

**NOTES-**

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



November 8, 2021

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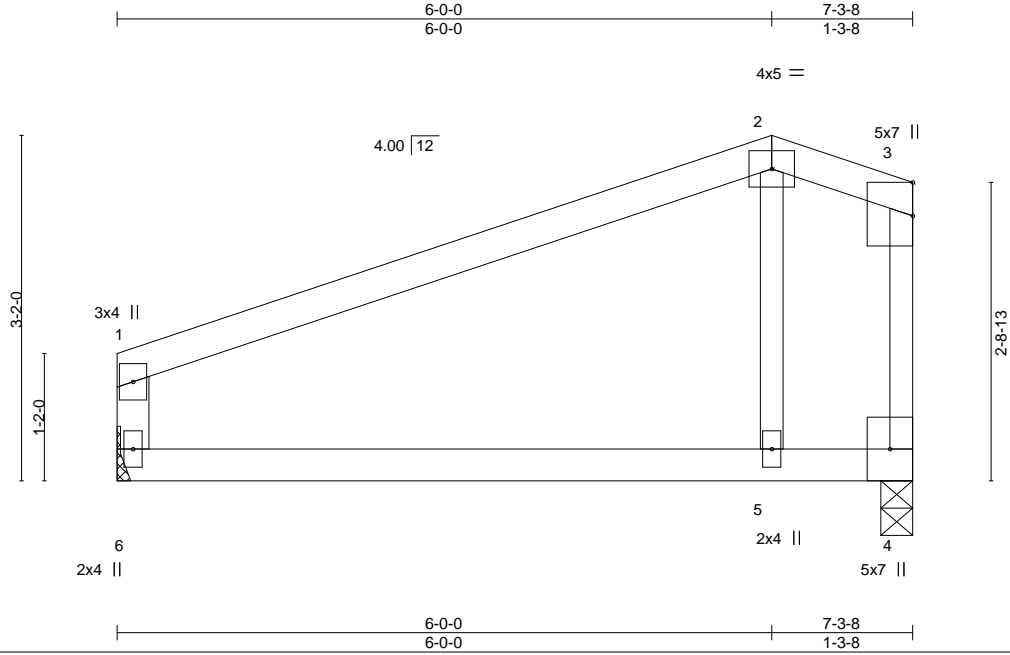
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686559
RR118	D4	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:38 2021 Page 1

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Scale = 1:21.1

Plate Offsets (X,Y)-- [3:0-3-11,0-0-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.06	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.14	5-6	>594	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R	Wind(LL)	0.05	5-6	>999	240	Weight: 22 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\*  
 1-6: 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) 6=Mechanical, 4=0-3-8  
 Max Horz 6=99(LC 5)  
 Max Uplift 6=-51(LC 4), 4=-52(LC 4)  
 Max Grav 6=317(LC 1), 4=317(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; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 6, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686560
RR118	E1	Roof Special Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:40 2021 Page 1

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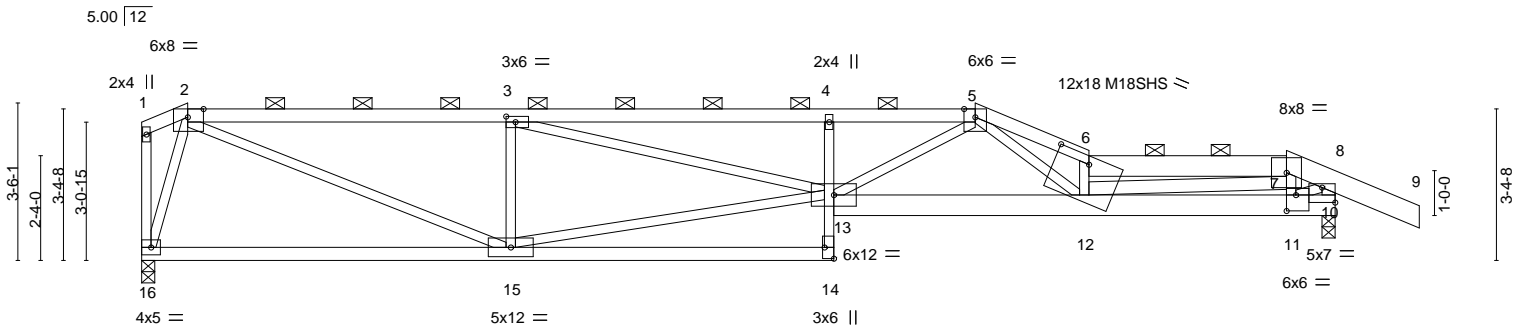


Plate Offsets (X,Y)--	[2:0-4-3,Edge], [3:0-2-8,0-1-8], [6:0-9-0,0-2-3], [10:Edge,0-4-0], [11:0-2-8,0-4-4], [14:Edge,0-2-8]
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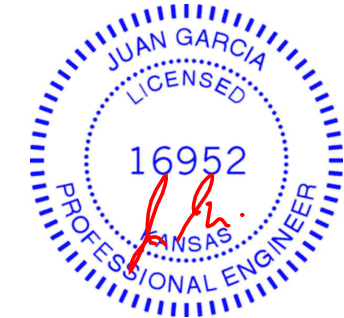
LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.78	Vert(LL) -0.35	12-13	>907	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.62	Vert(CT) -0.64	12-13	>496	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.77	Horz(CT) 0.09	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.27	12-13	>999	240		
							Weight: 115 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-5: 2x4 SPF 2100F 1.8E, 6-7,7-9: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-0-5 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-2 max.): 2-5, 6-7.
BOT CHORD 2x4 SPF No.2 *Except* 4-14: 2x3 SPF No.2, 10-13: 2x6 SPF 1650F 1.4E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 7-12,8-10: 2x4 SPF No.2	

**REACTIONS.** (size) 10=0-3-8, 16=0-3-8  
 Max Horz 16=-120(LC 6)  
 Max Uplift 10=-295(LC 5), 16=-201(LC 5)  
 Max Grav 10=1240(LC 1), 16=1176(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-2284/438, 3-4=-3734/690, 4-5=-3769/688, 5-6=-4716/769, 6-7=-4536/725,  
 7-8=-1526/270, 8-10=-1507/320  
 BOT CHORD 15-16=-44/370, 4-13=-422/167, 12-13=-465/2964, 11-12=-227/1500  
 WEBS 2-15=-353/2088, 3-15=-989/304, 13-15=-351/2108, 3-13=-264/1509, 5-13=-191/1036,  
 5-12=-242/1793, 6-12=-1861/352, 7-12=-497/3140, 7-11=-645/104, 2-16=-1242/324,  
 8-11=-247/1535

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=295, 16=201.
  - This truss 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) 56 lb down and 51 lb up at 25-6-0 on top chord, and 105 lb down and 509 lb up at 25-4-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



November 8, 2021

**LOAD CASE(S)** Standard

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686560
RR118	E1	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:40 2021 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 14-16=-20, 10-13=-20

Concentrated Loads (lb)

Vert: 7=51(F) 11=44(F)

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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 118 RR	148686561
RR118	E2	Roof Special	1	1		

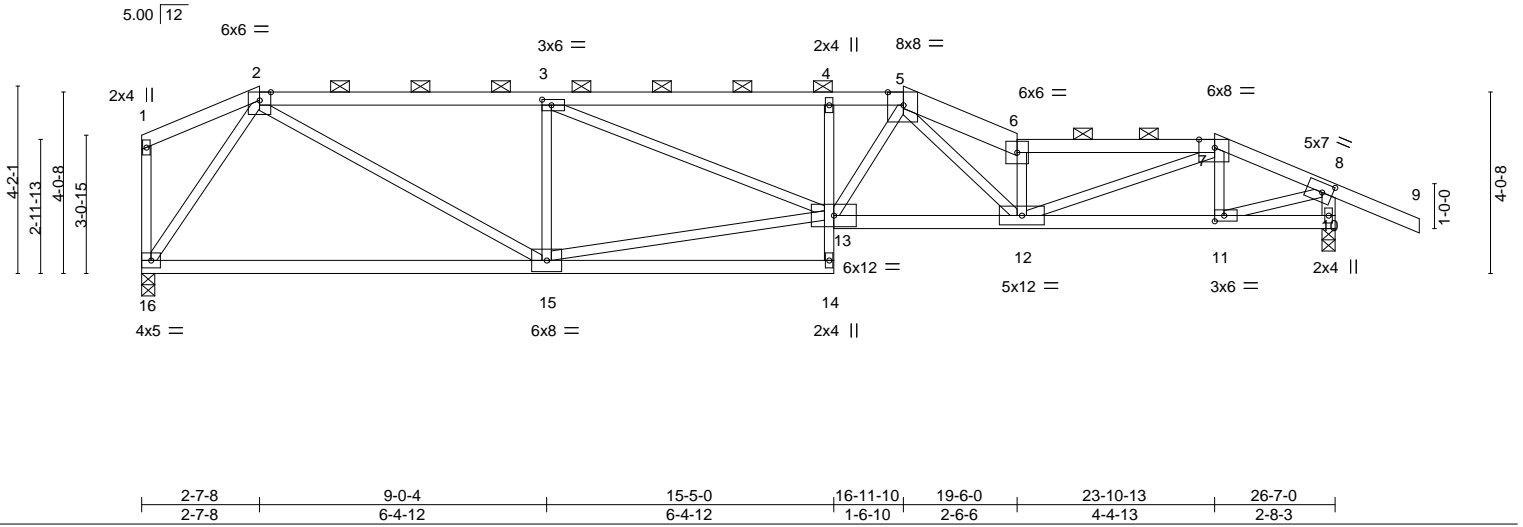
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:41 2021 Page 1

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Scale = 1:51.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.67	Vert(LL) -0.22 12-13 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.73	Vert(CT) -0.45 15-16 >709 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.70	Horz(CT) 0.08 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.17 12-13 >999 240	Weight: 107 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 5-6: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-7 oc purlins, except end verticals, and 2-0-0 oc purlins (2-6-11 max.); 2-5, 6-7.
BOT CHORD 2x4 SPF No.2 *Except* 4-14: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 8-10: 2x4 SPF No.2	

**REACTIONS.** (size) 10=0-3-8, 16=0-3-8  
 Max Horz 16=-120(LC 6)  
 Max Uplift 10=-236(LC 5), 16=-176(LC 5)  
 Max Grav 10=1332(LC 1), 16=1180(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1959/365, 3-4=-2758/492, 4-5=-2775/491, 5-6=-3839/623, 6-7=-3419/534, 7-8=-1653/240, 8-10=-1310/245  
 BOT CHORD 15-16=-100/706, 4-13=-350/144, 12-13=-358/2549, 11-12=-184/1525  
 WEBS 2-15=-213/1470, 3-15=-867/263, 13-15=-271/1858, 3-13=-140/878, 5-13=-109/536, 5-12=-208/1410, 6-12=-1722/334, 7-12=-321/2044, 7-11=-388/111, 2-16=-1238/268, 8-11=-235/1586

- 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) 10=236, 16=176.
  - 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.



November 8, 2021

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Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686562
RR118	E3	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:51.1

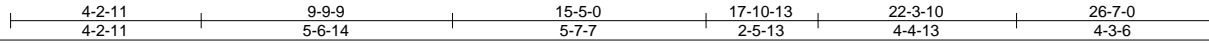
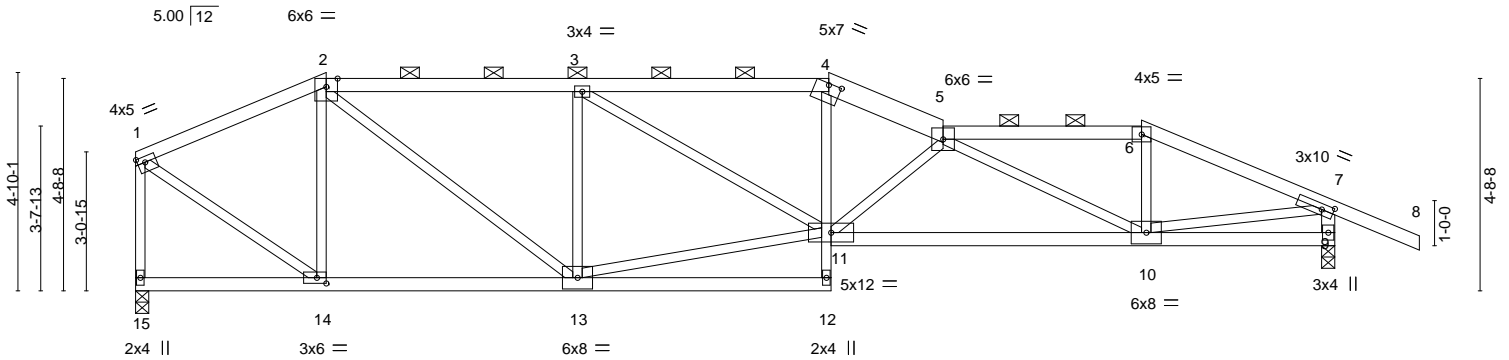


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [4:0-3-8,0-0-7], [7:0-3-3,0-1-8], [14:0-2-8,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.47	Vert(LL) -0.15	10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.85	Vert(CT) -0.32	10-11	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.85	Horz(CT) 0.07	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.11	10-11	>999	240		
							Weight: 109 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-5: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
4-12: 2x3 SPF No.2  
WEBS 2x3 SPF No.2 \*Except\*  
7-9: 2x4 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-6-10 max.); 2-4, 5-6.  
BOT CHORD Rigid ceiling directly applied or 9-3-13 oc bracing.

**REACTIONS.**

(size) 15=0-3-8, 9=0-3-8  
Max Horz 15=-118(LC 6)  
Max Uplift 15=-153(LC 5), 9=-219(LC 5)  
Max Grav 15=1180(LC 1), 9=1332(LC 1)

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

TOP CHORD 1-2=-1051/188, 2-3=-1693/323, 3-4=-2205/372, 4-5=-2420/388, 5-6=-1678/241,  
6-7=-1891/246, 1-15=-1147/173, 7-9=-1298/229  
BOT CHORD 13-14=-89/943, 4-11=-54/644, 10-11=-393/2812  
WEBS 2-14=-538/149, 2-13=-168/992, 3-13=-791/218, 11-13=-203/1639, 3-11=-83/614,  
5-11=-817/189, 5-10=-1284/252, 6-10=0/422, 1-14=-148/1118, 7-10=-197/1638

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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=219.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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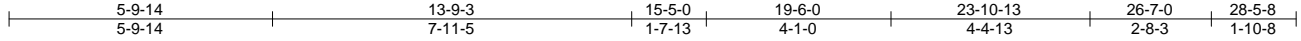
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686563
RR118	E4	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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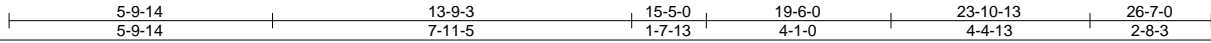
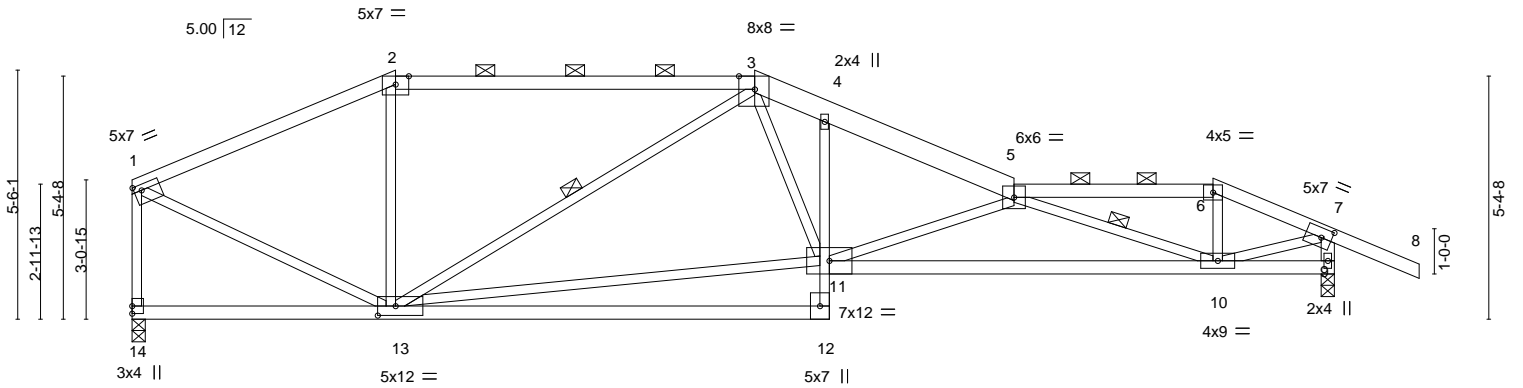


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [3:0-4-3,Edge], [7:0-2-12,0-2-8], [13:0-4-12,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.64	Vert(LL) -0.25	12-13	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.58	Vert(CT) -0.54	12-13	>590	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Horz(CT) 0.09	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.12	10-11	>999	240		
							Weight: 112 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
 2-3: 2x4 SPF 2100F 1.8E, 3-5: 2x6 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 4-12: 2x3 SPF No.2, 9-11: 2x4 SPF 2100F 1.8E  
 WEBS 2x3 SPF No.2 \*Except\*  
 7-9: 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

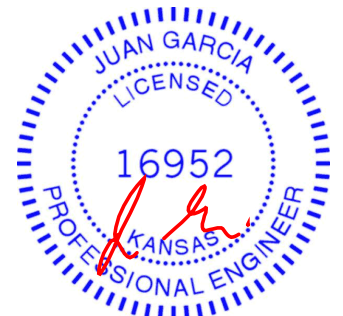
(size) 14=0-3-8, 9=0-3-8  
 Max Horz 14=-117(LC 6)  
 Max Uplift 14=-124(LC 5), 9=-207(LC 5)  
 Max Grav 14=1180(LC 1), 9=1332(LC 1)

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

TOP CHORD 1-2=-1249/182, 2-3=-1097/189, 3-4=-2277/320, 4-5=-2409/309, 5-6=-1522/159,  
 6-7=-1698/155, 1-14=-1141/144, 7-9=-1344/184  
 BOT CHORD 10-11=-428/3413  
 WEBS 3-13=-927/150, 11-13=-194/1672, 3-11=-127/908, 5-11=-1333/282, 5-10=-2024/352,  
 6-10=0/398, 1-13=-120/1190, 7-10=-137/1643

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 14=124, 9=207.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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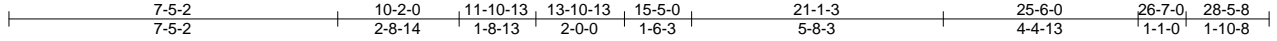


Job RR118	Truss E5	Truss Type Roof Special Girder	Qty 1	Ply 1	Lot 118 RR Job Reference (optional)	148686564
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Wheeler Lumber, Waverly, KS - 66871,

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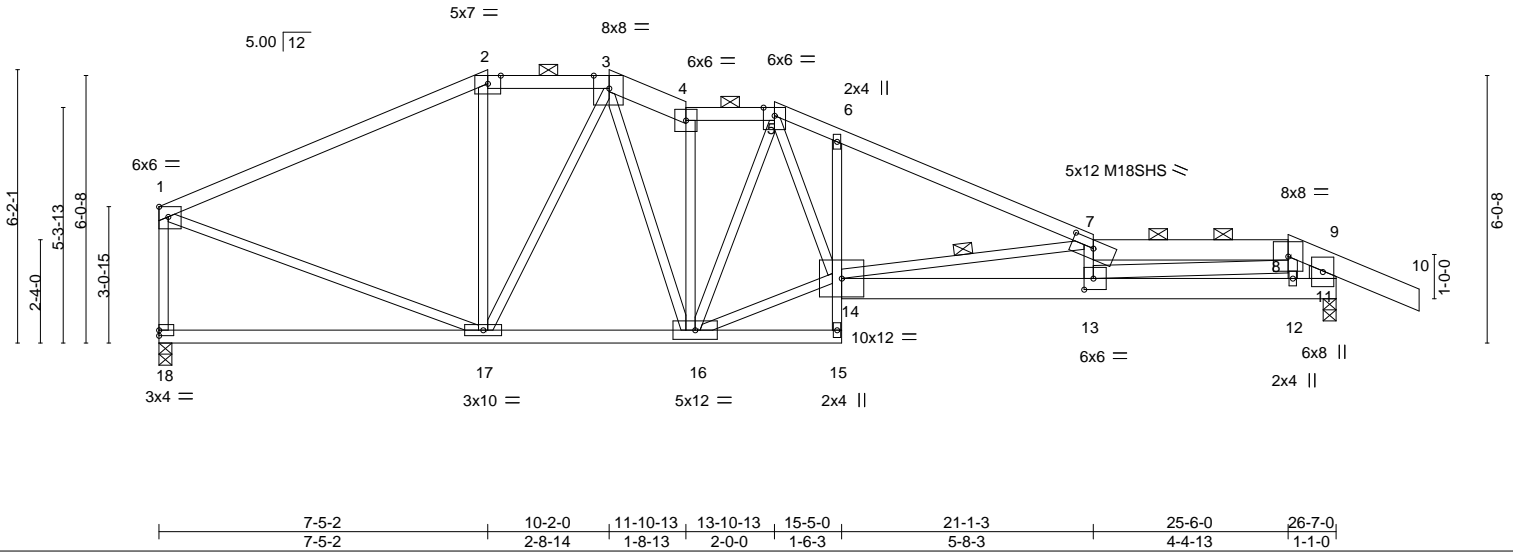


Plate Offsets (X,Y)-- [1:Edge,0-2-12], [3:0-4-3,Edge], [7:0-6-0,0-2-3], [13:0-2-8,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.79	Vert(LL) -0.29	13-14	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.84	Vert(CT) -0.53	13-14	>594	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.80	Horz(CT) 0.08	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.22	13-14	>999	240		
							Weight: 130 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-2: 2x4 SPF 2100F 1.8E, 3-4,7-8,8-10: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
6-15: 2x3 SPF No.2, 11-14: 2x6 SPF 1650F 1.4E  
WEBS 2x3 SPF No.2 \*Except\*  
8-13: 2x4 SPF No.2, 9-11: 2x8 SP DSS

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-8-13 oc purlins, except end verticals, and 2-0-0 oc purlins (3-4-5 max.): 2-3, 4-5, 7-8.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 7-14

**REACTIONS.**

(size) 18=0-3-8, 11=0-3-8  
Max Horz 18=-116(LC 34)  
Max Uplift 18=-98(LC 8), 11=-270(LC 9)  
Max Grav 18=1169(LC 1), 11=1245(LC 1)

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

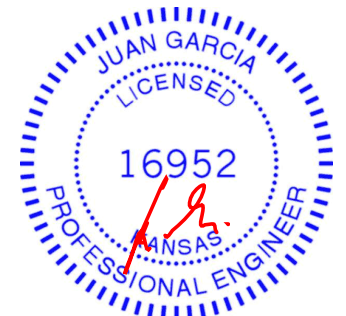
TOP CHORD 1-2=-1277/166, 2-3=-1095/178, 3-4=-1660/295, 4-5=-1490/249, 5-6=-2375/413, 6-7=-2448/345, 7-8=-4396/628, 8-9=-1445/225, 1-18=-1102/134, 9-11=-1073/209  
BOT CHORD 16-17=-57/1250, 6-14=-276/183, 13-14=-572/4305, 12-13=-165/1235, 11-12=-163/1238  
WEBS 3-17=-461/116, 3-16=-192/848, 4-16=-743/165, 5-16=-605/106, 14-16=-126/1756, 5-14=-269/1463, 7-14=-2133/356, 7-13=-806/204, 8-13=-453/3241, 1-17=-78/1118

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18 except (jt=18) 11=270.
- This truss 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) 56 lb down and 51 lb up at 25-6-0 on top chord, and 105 lb down and 509 lb up at 25-4-15 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

Continued on page 2



November 8, 2021

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686564
RR118	E5	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:45 2021 Page 2  
 ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-8ooNqAtCXJEFsVAIquWp5i8qgdrIbnWCNgML2MyMHsK

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-7=-70, 7-8=-70, 8-9=-70, 9-10=-70, 15-18=-20, 11-14=-20

Concentrated Loads (lb)

Vert: 8=51(B) 12=44(B)

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686565
RR118	G1	Half Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:47 2021 Page 2  
 ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-5Bw8EsvS3xUy5pK8xJYHB7D8uRVMfjeVqzrS7EyMHsl

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 11=-43(F) 2=-103(F) 8=-354(F) 13=-115(F) 14=-103(F) 15=-103(F) 16=-103(F) 17=-103(F) 18=-103(F) 19=-103(F) 20=-103(F) 21=-103(F) 22=-47(F)  
 23=-43(F) 24=-43(F) 25=-43(F) 26=-43(F) 27=-43(F) 28=-43(F) 29=-43(F) 30=-43(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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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017





Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686567
RR118	G3	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:51 2021 Page 1

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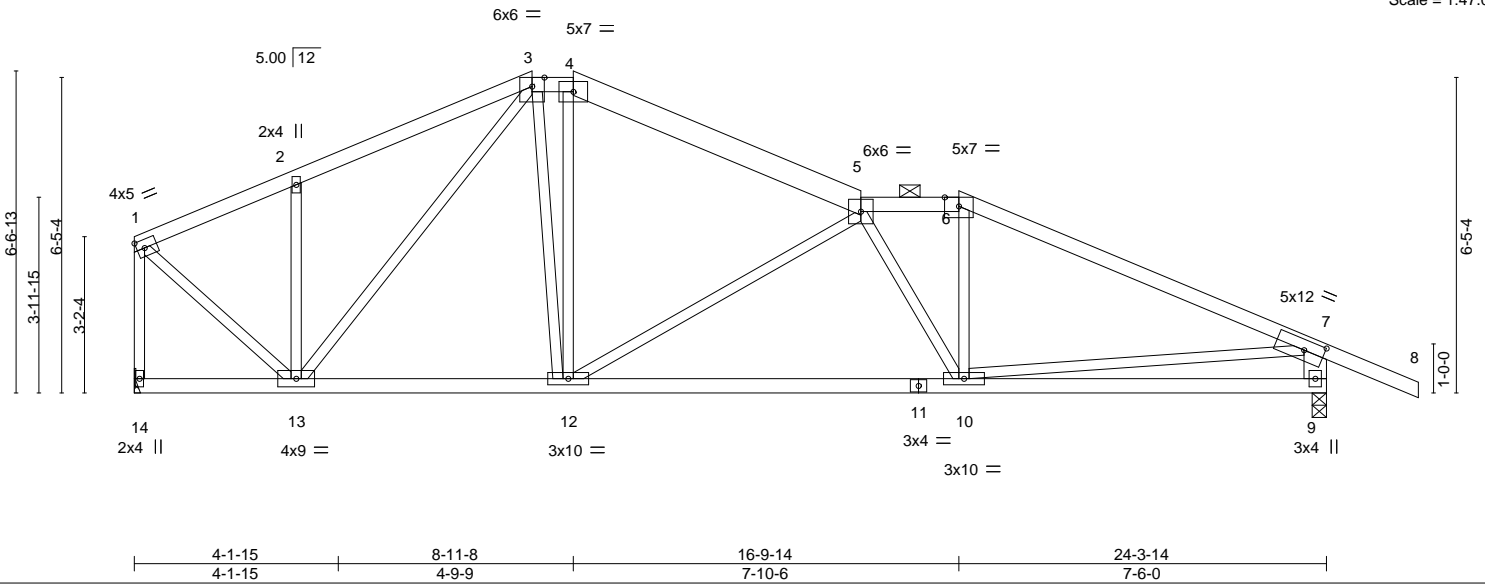


Plate Offsets (X,Y)--	[7:0-4-15,0-2-8]
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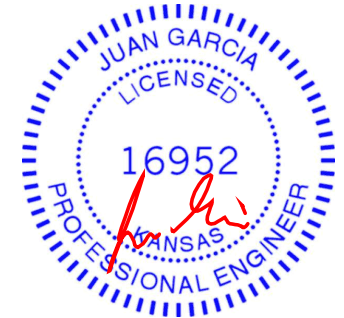
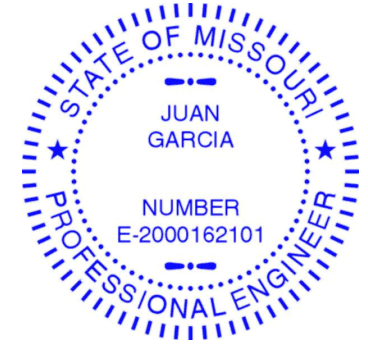
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.77	Vert(LL) -0.10 10-12 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.59	Vert(CT) -0.22 10-12 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.92	Horz(CT) 0.03 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.03 10-12 >999 240	Weight: 107 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 4-5: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-3-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-12 max.): 3-4, 5-6.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 7-9: 2x6 SPF No.2	

**REACTIONS.** (size) 14=Mechanical, 9=0-3-8  
 Max Horz 14=-110(LC 6)  
 Max Uplift 9=-50(LC 9)  
 Max Grav 14=1073(LC 1), 9=1233(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-813/27, 2-3=-852/63, 3-4=-994/65, 4-5=-1133/47, 5-6=-1471/62, 6-7=-1709/40,  
 1-14=-1045/8, 7-9=-1165/88  
 BOT CHORD 12-13=0/947, 10-12=0/1626, 9-10=-69/416  
 WEBS 2-13=-318/101, 3-13=-398/0, 3-12=-20/506, 5-12=-747/89, 5-10=-317/30, 6-10=0/351,  
 1-13=0/984, 7-10=0/1068

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



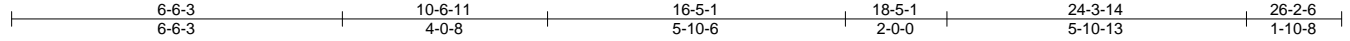
November 8, 2021

Job RR118	Truss G4	Truss Type Roof Special	Qty 1	Ply 1	Lot 118 RR Job Reference (optional)	148686568
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:52 2021 Page 1

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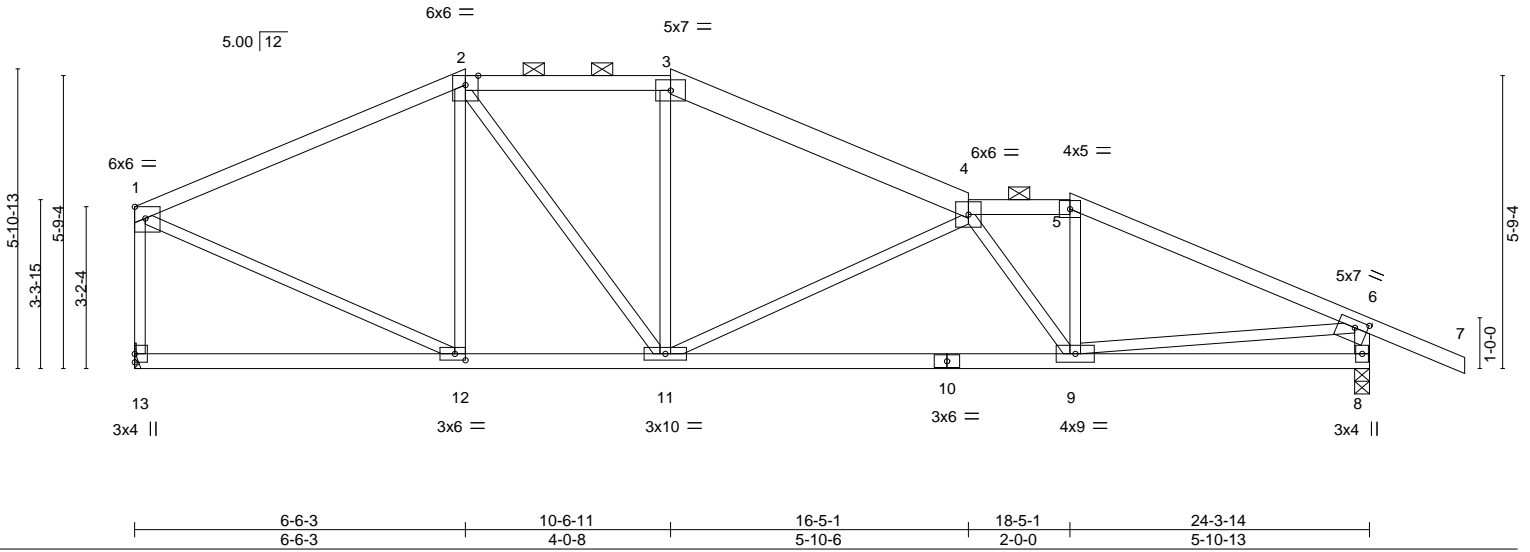


Plate Offsets (X,Y)-- [1:Edge,0-2-12], [6:0-3-0,0-1-12], [12:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.12	9-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.27	9-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.03	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	9-11	>999	240		
									Weight: 101 lb	FT = 10%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2 \*Except\*  
 3-4: 2x6 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x3 SPF No.2 \*Except\*  
 6-8: 2x4 SPF No.2

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

**REACTIONS.** (size) 13=Mechanical, 8=0-3-8  
 Max Horz 13=-110(LC 6)  
 Max Uplift 8=-45(LC 9)  
 Max Grav 13=1077(LC 1), 8=1231(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1095/37, 2-3=-1180/51, 3-4=-1334/30, 4-5=-1525/44, 5-6=-1749/25,  
 1-13=-1015/21, 6-8=-1178/69  
 BOT CHORD 11-12=0/944, 9-11=0/1830  
 WEBS 2-12=-321/59, 2-11=-24/483, 4-11=-735/92, 4-9=-540/43, 5-9=0/410, 1-12=0/988,  
 6-9=0/1313

- 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.
  - 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) 8.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 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 RR118	Truss G5	Truss Type Roof Special	Qty 1	Ply 1	Lot 118 RR	148686569
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Wheeler Lumber, Waverly, KS - 66871,

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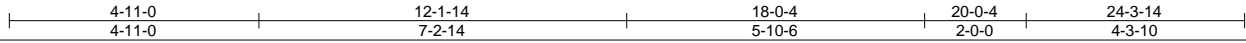
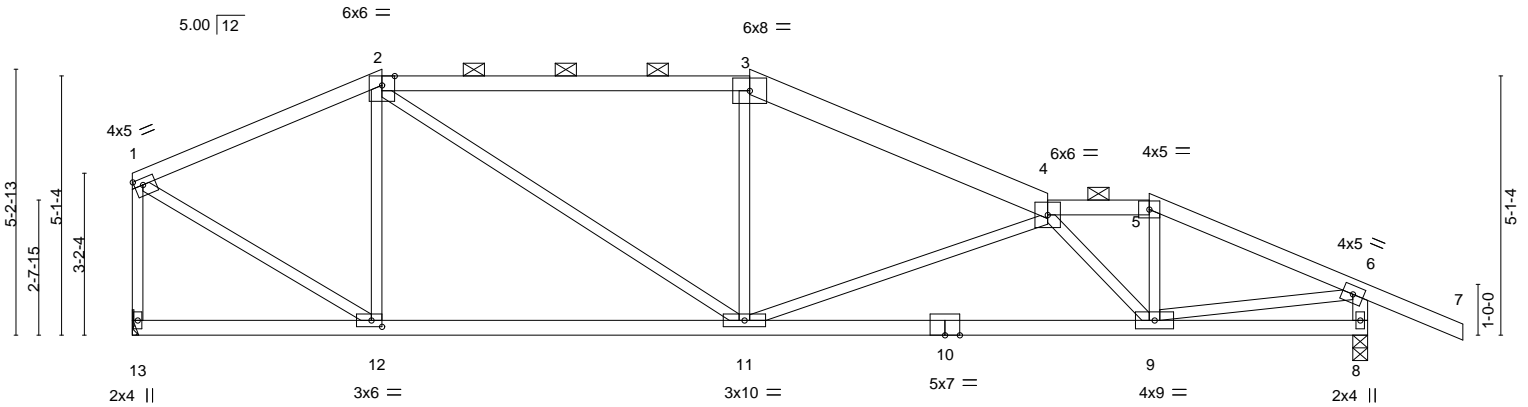


Plate Offsets (X,Y)-- [1:0-2-0,0-1-8], [12:0-2-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.11	9-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.25	9-11	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.70	Horz(CT)	0.04	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.04	9-11	>999	240	Weight: 98 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-2-13 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-15 max.): 2-3, 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 13=Mechanical, 8=0-3-8  
Max Horz 13=-110(LC 6)  
Max Uplift 13=-3(LC 4), 8=-39(LC 5)  
Max Grav 13=1077(LC 1), 8=1231(LC 1)

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

TOP CHORD 1-2=-1007/45, 2-3=-1396/48, 3-4=-1560/37, 4-5=-1489/21, 5-6=-1692/7, 1-13=-1040/22, 6-8=-1194/51  
BOT CHORD 11-12=0/893, 9-11=0/2020  
WEBS 2-12=-417/82, 2-11=-19/660, 4-11=-675/94, 4-9=-806/51, 5-9=0/459, 1-12=-8/1021, 6-9=0/1437

**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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686570
RR118	G6	Roof Special	1	1		

Job Reference (optional)

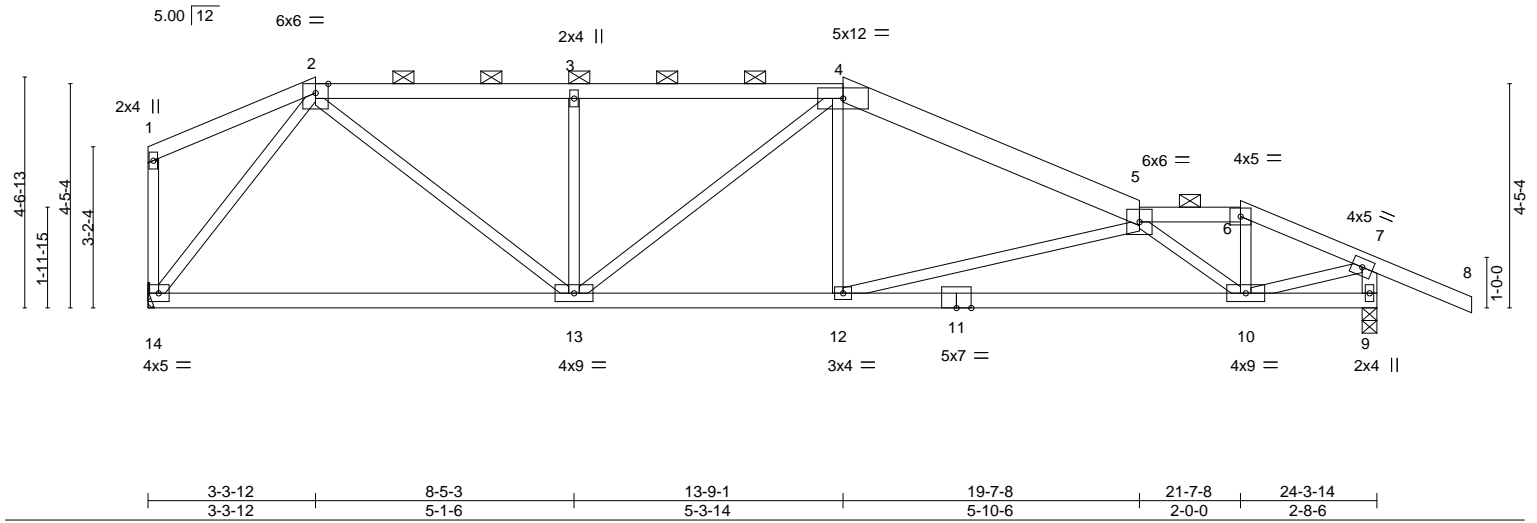
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:54 2021 Page 1

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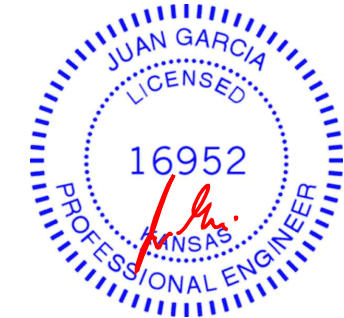
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.37	Vert(LL)	-0.16	13-14	>999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.73	Vert(CT)	-0.34	13-14	>854		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.79	Horz(CT)	0.05	9	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL)	0.06	10-12	>999		
	Code IRC2018/TPI2014						Weight: 97 lb	FT = 10%

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

**REACTIONS.** (size) 14=Mechanical, 9=0-3-8  
 Max Horz 14=-139(LC 4)  
 Max Uplift 14=-143(LC 4), 9=-189(LC 5)  
 Max Grav 14=1077(LC 1), 9=1231(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1480/263, 3-4=-1478/261, 4-5=-1743/247, 5-6=-1321/122, 6-7=-1495/125, 7-9=-1223/173  
 BOT CHORD 13-14=-47/703, 12-13=-129/1564, 10-12=-244/2235  
 WEBS 2-13=-118/1025, 3-13=-429/173, 4-12=0/372, 5-12=-706/207, 5-10=-1182/227, 6-10=-17/450, 2-14=-1122/219, 7-10=-103/1417

- 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) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=143, 9=189.
  - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

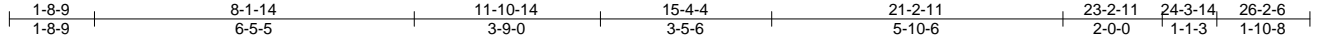


Job RR118	Truss G7	Truss Type Roof Special Girder	Qty 1	Ply 1	Lot 118 RR Job Reference (optional)	148686571
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:56 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-KvzY7x06xidhgBWtziDO215i03eGGkHqvtWQxDyMHs9



Scale = 1:46.4

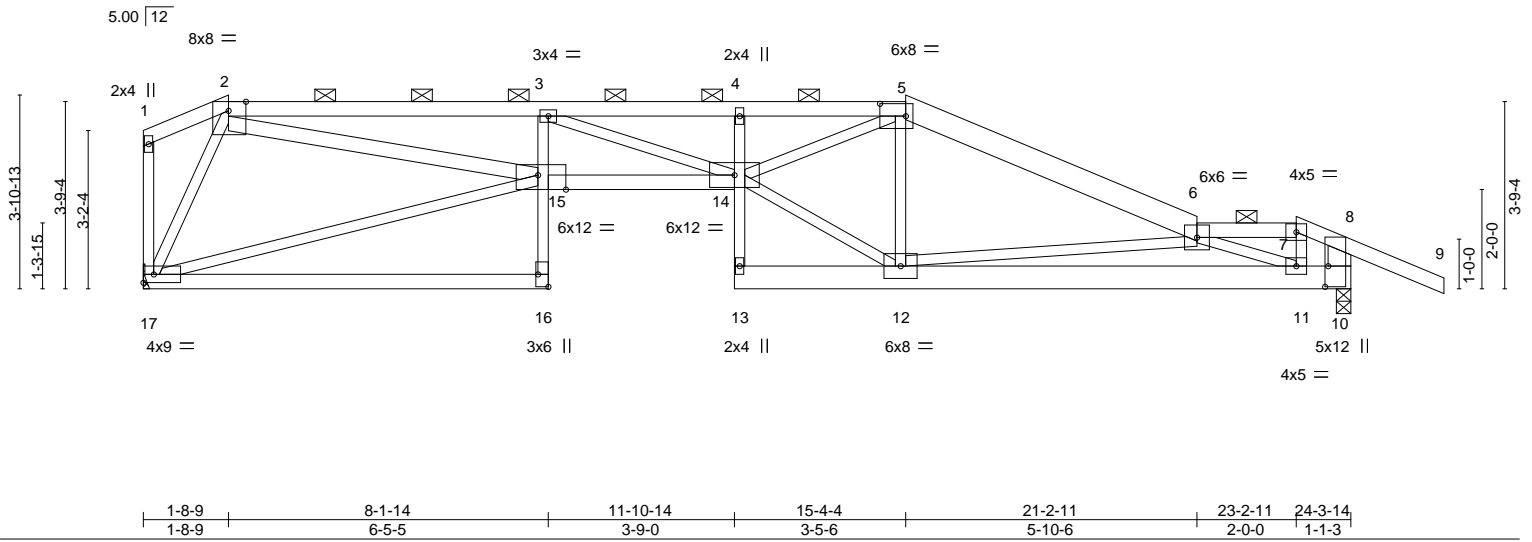


Plate Offsets (X,Y)-- [2:0-4-3,Edge], [5:0-6-4,0-3-0], [10:0-5-0,0-0-12], [15:0-6-12,Edge], [16:Edge,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.78	Vert(LL) -0.33 14-15 >865 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(CT) -0.60 14-15 >480 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.92	Horz(CT) 0.29 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.24 14-15 >999 240	Weight: 114 lb	FT = 10%

LUMBER-	BRACING-
<b>TOP CHORD</b> 2x4 SPF No.2 *Except* 2-5: 2x4 SPF 2100F 1.8E, 5-6: 2x6 SPF No.2 <b>BOT CHORD</b> 2x3 SPF No.2 *Except* 16-17: 2x4 SPF No.2, 14-15: 2x4 SPF 2100F 1.8E 10-13: 2x6 SPF No.2 <b>WEBS</b> 2x3 SPF No.2 *Except* 2-15: 2x4 SPF No.2, 8-10: 2x6 SPF No.2	<b>TOP CHORD</b> Structural wood sheathing directly applied or 4-9-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-1-0 max.): 2-5, 6-7. <b>BOT CHORD</b> Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 10-11.
<b>REACTIONS.</b> (size) 10=0-3-8, 17=Mechanical Max Horz 17=-140(LC 6) Max Uplift 10=-270(LC 5), 17=-170(LC 4) Max Grav 10=1170(LC 1), 17=1071(LC 1)	

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
<b>TOP CHORD</b> 2-3=-4023/663, 3-4=-4263/634, 4-5=-4207/632, 5-6=-1984/290, 6-7=-507/74, 7-8=-645/94, 8-10=-580/110
<b>BOT CHORD</b> 3-15=-480/169, 14-15=-544/4071, 11-12=-331/2430, 10-11=-82/556
<b>WEBS</b> 15-17=-50/469, 2-15=-533/3572, 12-14=-199/1972, 5-14=-378/2680, 5-12=-743/161, 6-12=-658/231, 6-11=-2133/387, 7-11=-88/322, 2-17=-1233/273

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=270, 17=170.
  - This truss 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) 55 lb down and 12 lb up at 23-2-11 on top chord, and 168 lb down and 874 lb up at 23-1-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



November 8, 2021

**LOAD CASE(S)** Standard

**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 118 RR	I48686571
RR118	G7	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:56 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-2=-70, 2-5=-70, 5-6=-70, 6-7=-70, 7-8=-70, 8-9=-70, 16-17=-20, 14-15=-20, 10-13=-20
- Concentrated Loads (lb)
  - Vert: 11=66(B)

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686572
RR118	G8	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:57 2021 Page 1  
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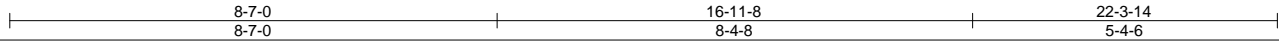
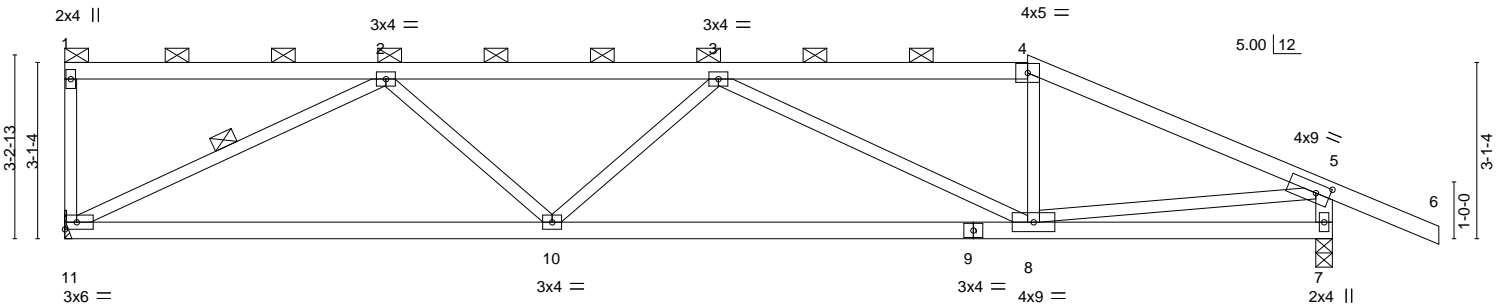


Plate Offsets (X,Y)-- [5:0-2-15,0-2-0]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.42	Vert(LL) -0.14	10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.75	Vert(CT) -0.31	10-11	>859	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.71	Horz(CT) 0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.05	8-10	>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\*  
 5-7: 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

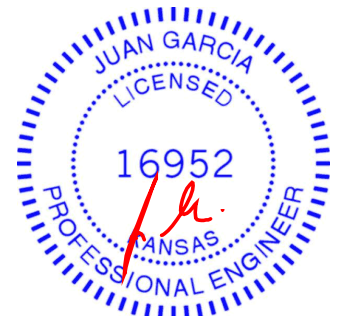
(size) 11=Mechanical, 7=0-3-8  
 Max Horz 11=-104(LC 6)  
 Max Uplift 11=-50(LC 4), 7=-60(LC 5)  
 Max Grav 11=987(LC 1), 7=1141(LC 1)

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

TOP CHORD 2-3=-1834/57, 3-4=-1381/48, 4-5=-1577/39, 5-7=-1096/81  
 BOT CHORD 10-11=-52/1505, 8-10=-57/1969  
 WEBS 2-11=-1649/122, 2-10=0/501, 3-8=-729/85, 4-8=0/316, 5-8=-9/1244

**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.
- 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) 11, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 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



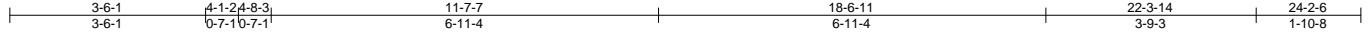
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686573
RR118	G9	Roof Special	1	1	Job Reference (optional)	

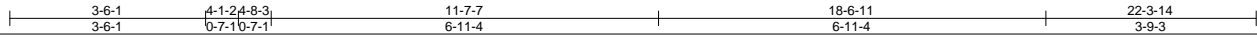
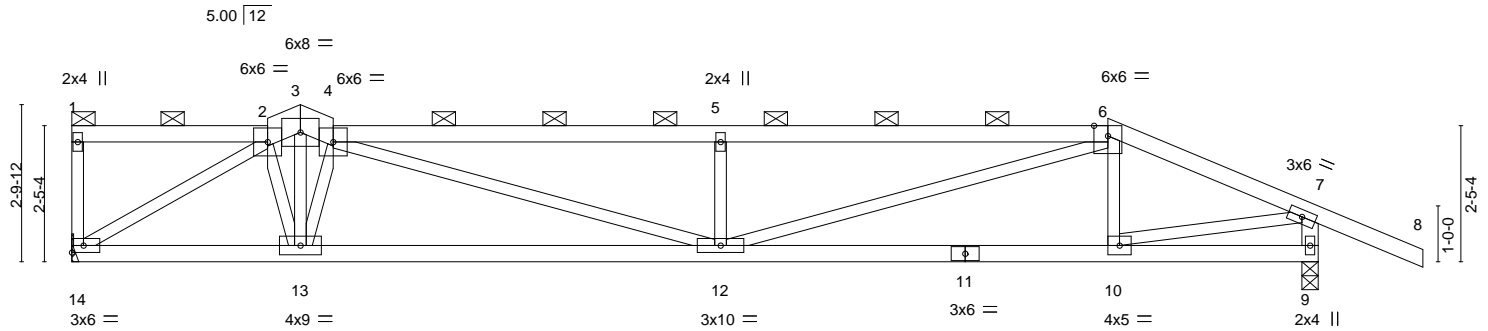
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:58 2021 Page 1

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Scale = 1:41.3



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.15	12	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.30	12-13	>889	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.05	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.08	12	>999	240		
									Weight: 83 lb	FT = 10%

**LUMBER-**

**TOP CHORD** 2x4 SPF No.2 \*Except\*  
2-3,3-4: 2x6 SPF No.2, 4-6: 2x4 SPF 2100F 1.8E

**BOT CHORD** 2x4 SPF No.2

**WEBS** 2x3 SPF No.2 \*Except\*  
7-9: 2x4 SPF No.2

**BRACING-**

**TOP CHORD** Structural wood sheathing directly applied or 4-6-15 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-0 max.): 1-2, 4-6.

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

**REACTIONS.**

(size) 14=Mechanical, 9=0-3-8  
Max Horz 14=-83(LC 4)  
Max Uplift 14=-11(LC 9), 9=-66(LC 5)  
Max Grav 14=987(LC 1), 9=1141(LC 1)

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

**TOP CHORD** 2-3=-1438/40, 3-4=-1511/57, 4-5=-2692/132, 5-6=-2693/133, 6-7=-1523/65, 7-9=-1115/77

**BOT CHORD** 13-14=0/1339, 12-13=-18/1723, 10-12=-22/1376

**WEBS** 2-14=-1565/27, 4-12=-64/1071, 5-12=-574/131, 6-12=-74/1380, 7-10=-32/1389, 3-13=-19/550, 4-13=-960/113, 2-13=-14/586

**NOTES-**

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



November 8, 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 RR118	Truss G10	Truss Type Roof Special Girder	Qty 1	Ply 1	Lot 118 RR Job Reference (optional)	148686574
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:49 2021 Page 1  
ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-1Z2ufYxbYkgL6UX3kbIGYISIEF37YfoHKYB7yMHsG



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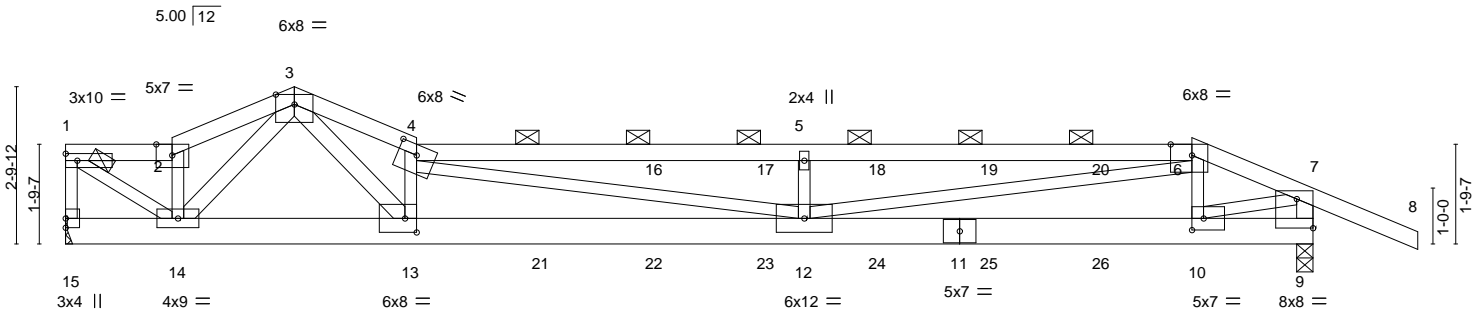


Plate Offsets (X,Y)--	[2:0-3-7,Edge], [4:0-4-0,0-2-3], [6:0-4-9,Edge], [9:Edge,0-6-4], [10:0-2-8,0-2-8], [13:0-2-8,0-3-0]
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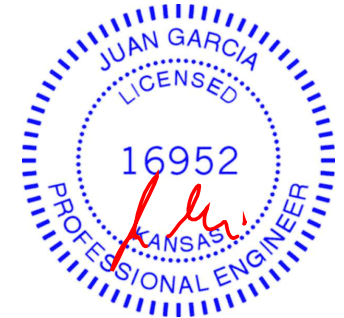
LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.98	Vert(LL) -0.35 12-13 >766 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.75	Vert(CT) -0.63 12-13 >418 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.98	Horz(CT) 0.05 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.28 12-13 >941 240	Weight: 95 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2 *Except* 4-6: 2x4 SPF 2400F 2.0E	TOP CHORD Structural wood sheathing directly applied or 2-7-14 oc purlins, except end verticals, and 2-0-0 oc purlins (2-9-7 max.): 1-2, 4-6.
BOT CHORD 2x6 SPF 1650F 1.4E *Except* 9-11: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.
WEBS 2x3 SPF No.2 *Except* 3-14,3-13,7-9: 2x4 SPF No.2	

**REACTIONS.** (size) 15=Mechanical, 9=0-3-8  
 Max Horz 15=-73(LC 4)  
 Max Uplift 15=-155(LC 9), 9=-277(LC 9)  
 Max Grav 15=1143(LC 1), 9=1230(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-15=-1051/152, 1-2=-1295/199, 2-3=-1380/225, 3-4=-4208/736, 4-5=-4374/815, 5-6=-4374/815, 6-7=-1676/321, 7-9=-1311/278  
 BOT CHORD 13-14=-200/1594, 12-13=-621/3941, 10-12=-275/1585  
 WEBS 1-14=-222/1563, 2-14=-609/104, 3-14=-572/118, 3-13=-593/3358, 4-13=-2157/468, 4-12=-152/543, 5-12=-537/235, 6-12=-499/2846, 6-10=-434/121, 7-10=-312/1681

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) 15=155, 9=277.
  - This truss 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) 65 lb down and 26 lb up at 10-6-7, 65 lb down and 26 lb up at 12-6-7, 65 lb down and 26 lb up at 14-6-7, and 65 lb down and 26 lb up at 16-6-7, and 65 lb down and 26 lb up at 18-6-7 on top chord, and 250 lb down and 57 lb up at 8-6-2, 19 lb down at 10-6-7, 19 lb down at 12-6-7, 19 lb down at 14-6-7, 19 lb down at 16-6-7, and 19 lb down at 18-6-7, and 97 lb down and 287 lb up at 20-1-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



November 8, 2021

Continued on page 2

**LOAD CASE(S) Standard**

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**MiTek**  
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686574
RR118	G10	Roof Special Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:49 2021 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-6=-70, 6-7=-70, 7-8=-70, 9-15=-20

Concentrated Loads (lb)

Vert: 10=14(B) 16=-2(B) 17=-2(B) 18=-2(B) 19=-2(B) 20=-2(B) 21=-250(B) 22=-0(B) 23=-0(B) 24=-0(B) 25=-0(B) 26=-0(B)

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

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



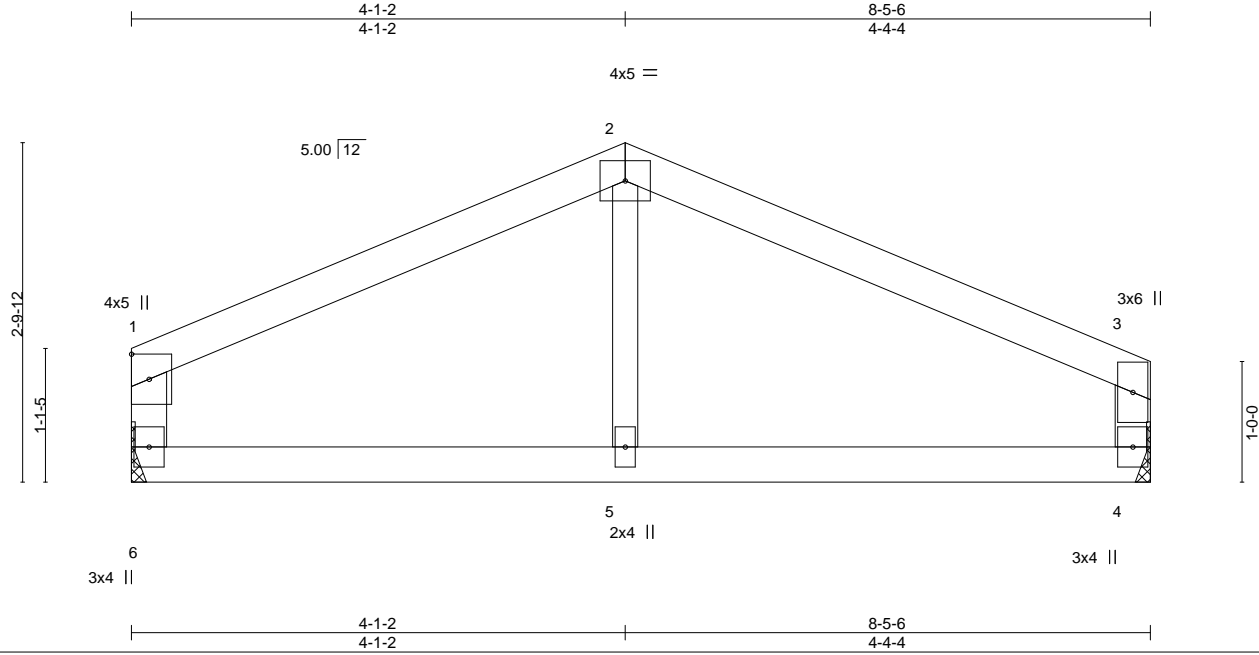
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686575
RR118	H1	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:25:59 2021 Page 1

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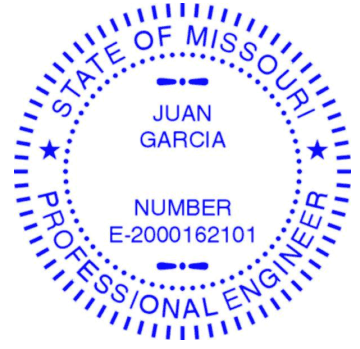
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.24	Vert(LL) -0.03	5	>999	360		MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.31	Vert(CT) -0.06	5	>999	240			
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT) 0.00	4	n/a	n/a			
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL) 0.01	5	>999	240			
	Code IRC2018/TPI2014							Weight: 23 lb	FT = 10%

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

**REACTIONS.** (size) 6=Mechanical, 4=Mechanical  
 Max Horz 6=-27(LC 6)  
 Max Uplift 6=-4(LC 8), 4=-5(LC 9)  
 Max Grav 6=367(LC 1), 4=367(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-371/21, 2-3=-373/19, 1-6=-285/29, 3-4=-289/32  
 BOT CHORD 5-6=0/284, 4-5=0/284

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



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686576
RR118	H2	Common	2	1		

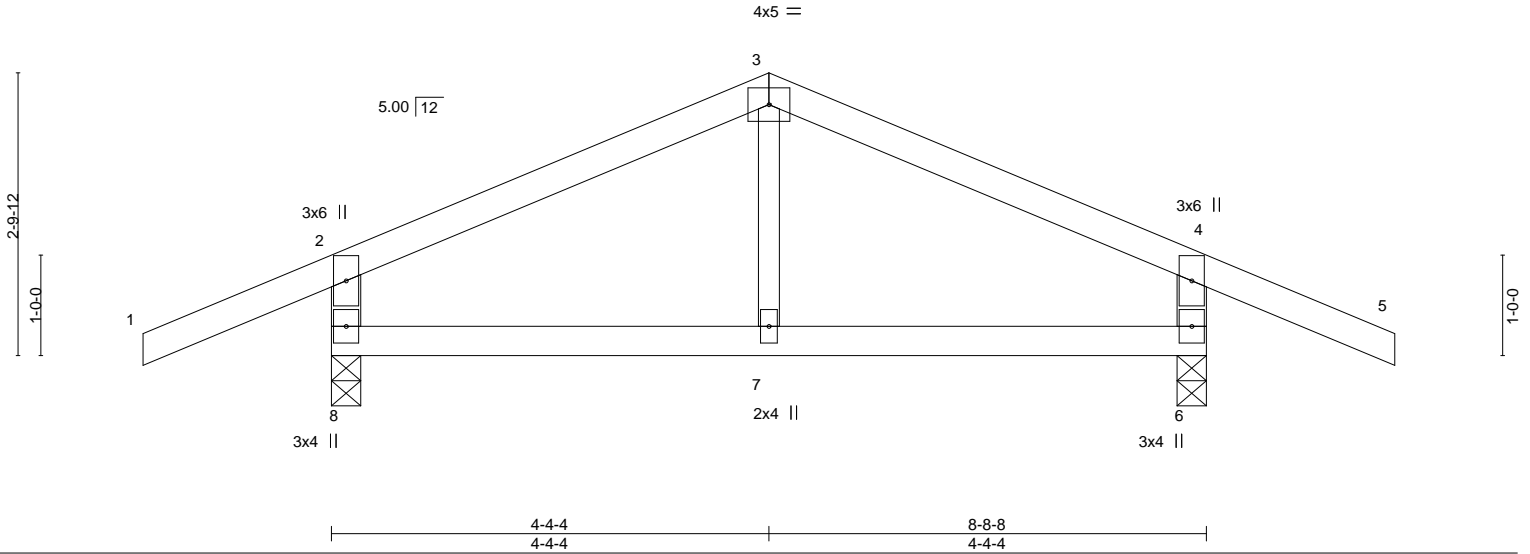
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:00 2021 Page 1

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Scale = 1:22.9



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.03	7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.05	7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	7	>999	240	Weight: 29 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 8=0-3-8, 6=0-3-8  
 Max Horz 8=-23(LC 6)  
 Max Uplift 8=-97(LC 8), 6=-97(LC 9)  
 Max Grav 8=520(LC 1), 6=520(LC 1)

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

TOP CHORD 2-3=-343/51, 3-4=-343/51, 2-8=-447/123, 4-6=-447/123

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



November 8, 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

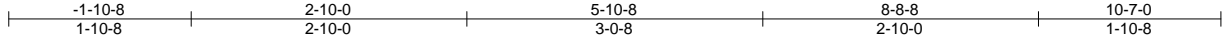


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686577
RR118	H3	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:01 2021 Page 1

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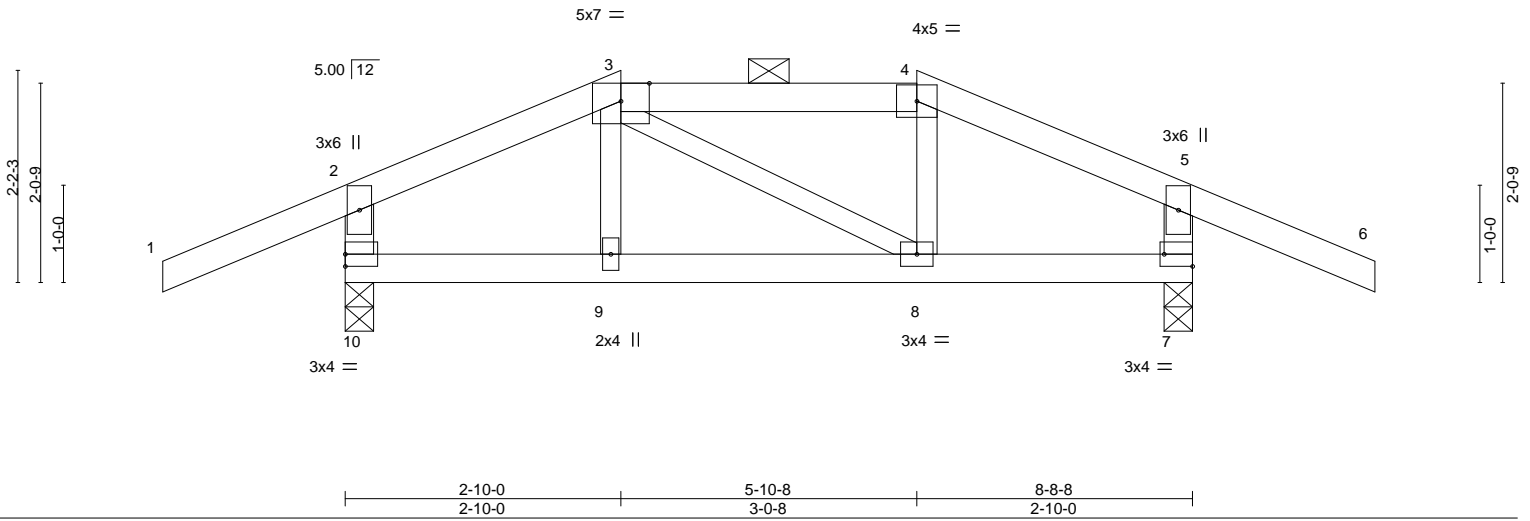


Plate Offsets (X,Y)-- [7:Edge,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.40	Vert(LL) -0.04	8-9	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.30	Vert(CT) -0.07	8-9	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT) 0.00	7	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.02	8-9	>999	240		
	Code IRC2018/TPI2014						Weight: 32 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 10=0-3-8, 7=0-3-8  
 Max Horz 10=-24(LC 6)  
 Max Uplift 10=-107(LC 4), 7=-107(LC 5)  
 Max Grav 10=520(LC 1), 7=520(LC 1)

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

TOP CHORD 2-3=-360/48, 3-4=-272/54, 4-5=-360/48, 2-10=-434/113, 5-7=-434/113  
 BOT CHORD 9-10=0/272, 8-9=0/272, 7-8=0/272

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=107, 7=107.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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

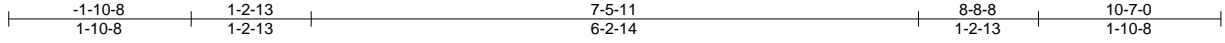
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686578
RR118	H4	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:02 2021 Page 1  
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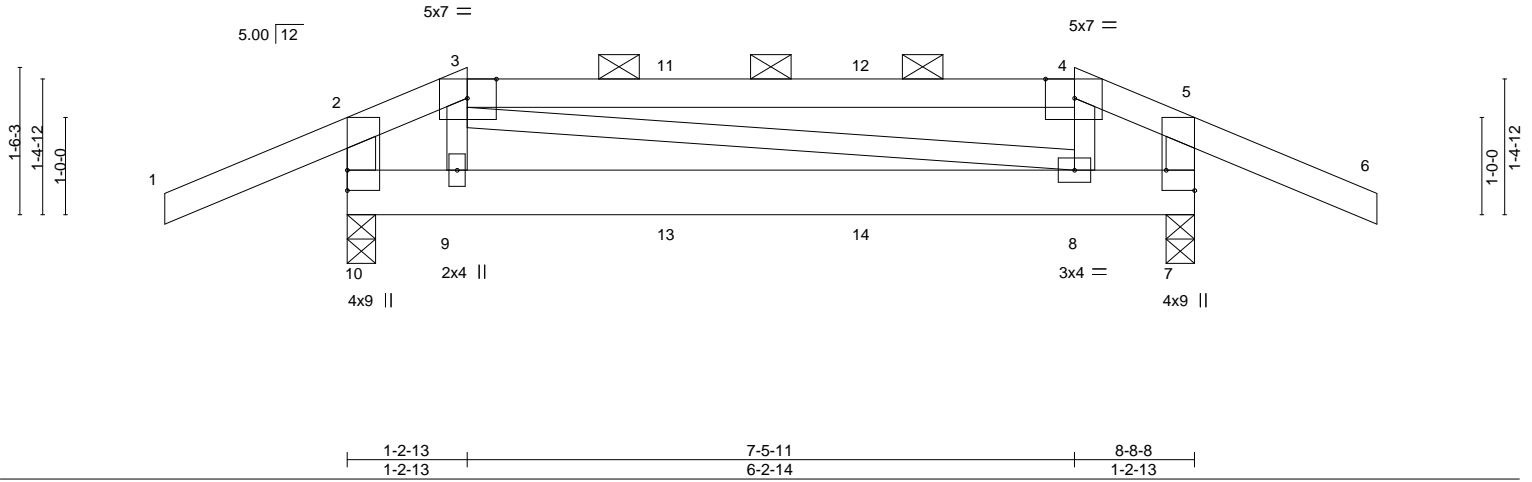


Plate Offsets (X,Y)-- [3:0-3-9,Edge], [4:0-3-9,Edge], [7:Edge,0-3-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) -0.02	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) -0.04	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.09	Horz(CT) 0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) -0.02	8-9	>999	240	Weight: 38 lb	FT = 10%

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

**REACTIONS.** (size) 10=0-3-8, 7=0-3-8  
 Max Horz 10=24(LC 7)  
 Max Uplift 10=-420(LC 29), 7=-420(LC 28)  
 Max Grav 10=502(LC 45), 7=502(LC 44)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-404/437, 3-4=-352/307, 4-5=-398/435, 2-10=-302/237, 5-7=-308/244  
 BOT CHORD 9-10=-367/377, 8-9=-316/382, 7-8=-355/364  
 WEBS 3-9=-512/129, 4-8=-530/142

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=420, 7=420.
  - This truss 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) 45 lb down and 12 lb up at 1-2-13, 50 lb down and 12 lb up at 3-4-4, and 50 lb down and 12 lb up at 5-4-4, and 45 lb down and 12 lb up at 7-5-11 on top chord, and 145 lb down and 761 lb up at 1-2-13, 14 lb down and 16 lb up at 3-4-4, and 14 lb down and 16 lb up at 5-4-4, and 145 lb down and 761 lb up at 7-4-4 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  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 5-6=-70, 7-10=-20



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686578
RR118	H4	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:03 2021 Page 2  
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**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 9=56(B) 8=56(B)

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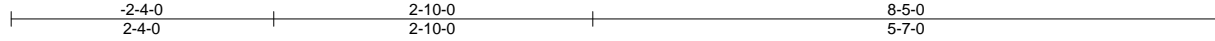


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686579
RR118	J1	Diagonal Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:04 2021 Page 1  
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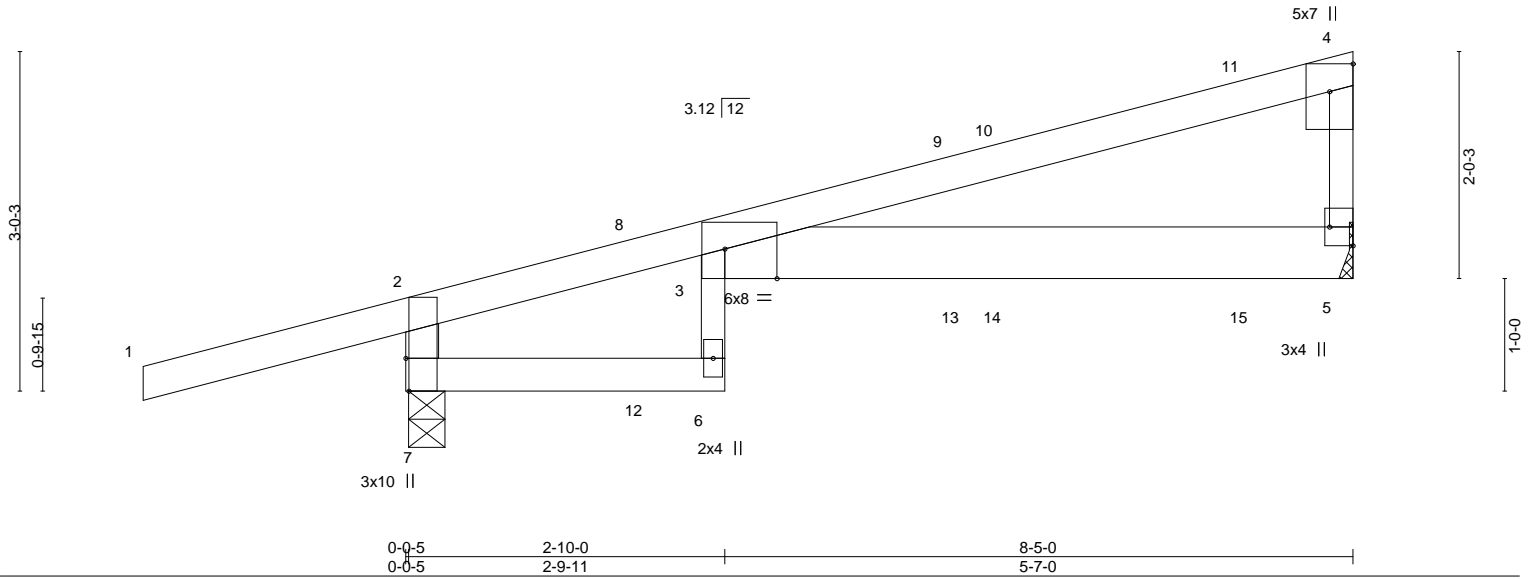


Plate Offsets (X,Y)-- [3:0-5-9,Edge], [4:Edge,0-2-8], [5:Edge,0-2-8], [7:0-3-8,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.77	Vert(LL) -0.18	3	>544	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.59	Vert(CT) -0.33	3	>300	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.17	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.16	6	>604	240	Weight: 28 lb	FT = 10%

**LUMBER-**

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

**REACTIONS.**

(size) 7=0-3-14, 5=Mechanical  
 Max Horz 7=109(LC 5)  
 Max Uplift 7=-161(LC 4), 5=-109(LC 8)  
 Max Grav 7=577(LC 1), 5=481(LC 1)

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

TOP CHORD 2-7=-563/174, 4-5=-260/100

**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=161, 5=109.
- 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) 72 lb down and 134 lb up at 2-1-6, 63 lb down and 36 lb up at 2-4-9, 108 lb down and 63 lb up at 4-11-5, and 97 lb down and 51 lb up at 5-3-12, and 98 lb down and 67 lb up at 7-6-1 on top chord, and 18 lb down and 21 lb up at 2-1-6, 3 lb down at 2-4-9, 3 lb down at 4-11-5, and 24 lb down at 5-3-12, and 63 lb down and 27 lb up at 7-6-1 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, 3-4=-70, 6-7=-20, 3-5=-20  
 Concentrated Loads (lb)  
 Vert: 8=35(B) 9=-40(F) 10=-4(B) 11=-62(F) 14=-16(B) 15=-63(F)



November 8, 2021

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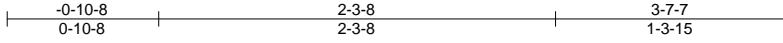
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686580
RR118	J2	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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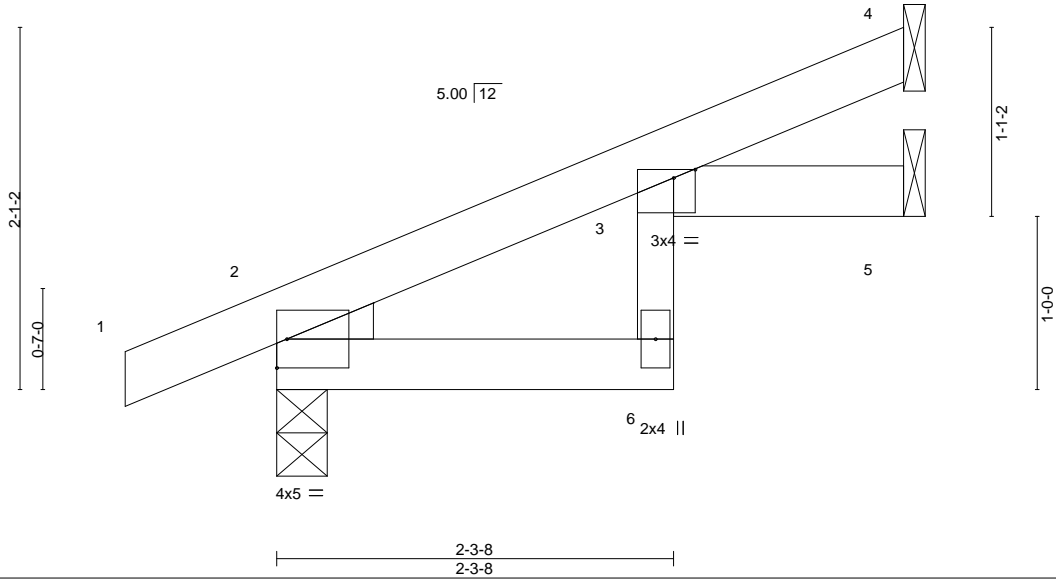


Plate Offsets (X,Y)-- [3:0-1-8,0-0-9]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.21	Vert(LL) -0.02	6	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.06	Vert(CT) -0.03	6	>999	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.01	Horz(CT) 0.02	5	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL) 0.02	6	>999	240			
									Weight: 11 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
 Max Horz 2=75(LC 8)  
 Max Uplift 4=-52(LC 8), 2=-37(LC 8)  
 Max Grav 4=129(LC 1), 2=236(LC 1), 5=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) 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.



November 8, 2021

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

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

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

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686581
RR118	J3	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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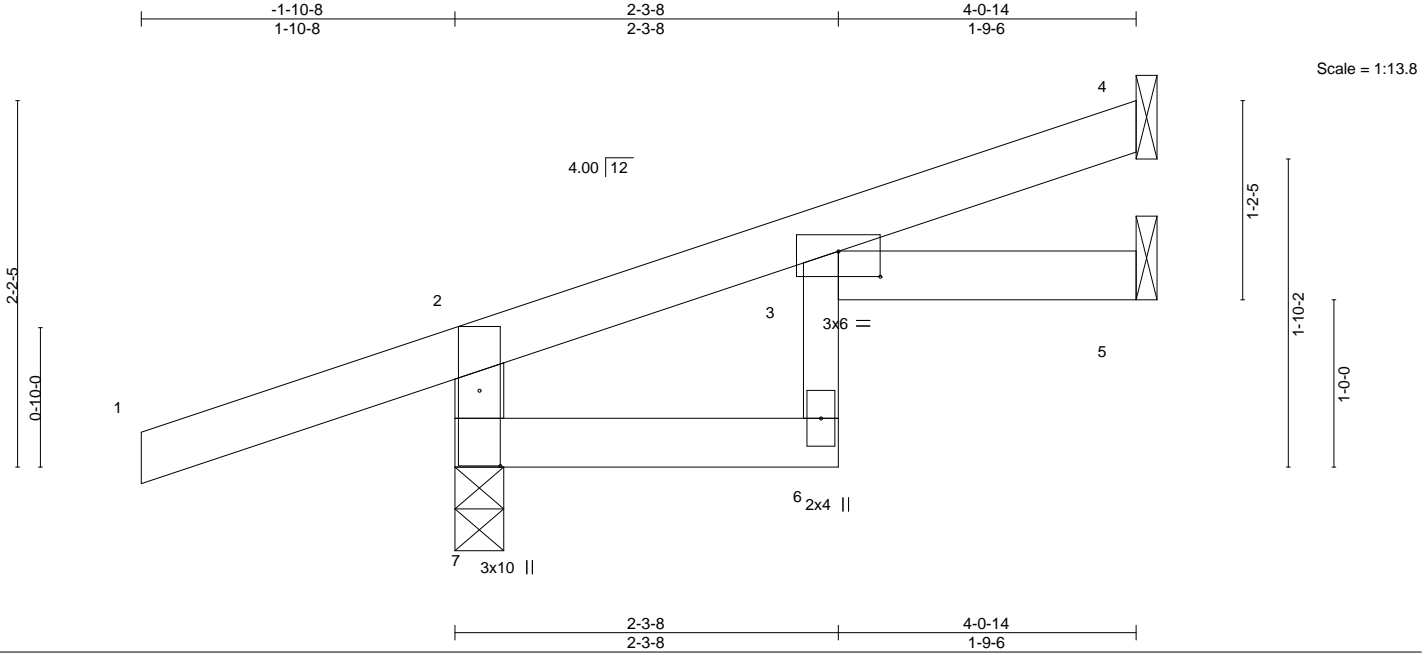


Plate Offsets (X,Y)--	[3:0-3-0,0-1-13], [7:0-5-6,0-1-8]
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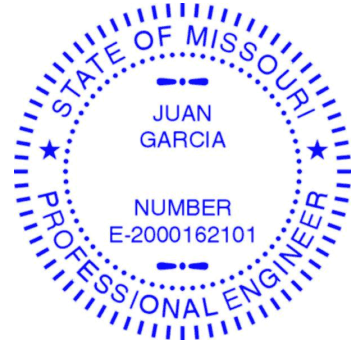
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.01	3	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) -0.02	6	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT) 0.02	5	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Wind(LL) 0.02	6	>999	240		Weight: 13 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 3-6: 2x3 SPF No.2	

**REACTIONS.** (size) 7=0-3-8, 4=Mechanical, 5=Mechanical  
 Max Horz 7=79(LC 4)  
 Max Uplift 7=122(LC 4), 4=34(LC 8), 5=4(LC 8)  
 Max Grav 7=352(LC 1), 4=85(LC 1), 5=60(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=320/135

- 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, 5 except (jt=6) 7=122.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686582
RR118	J4	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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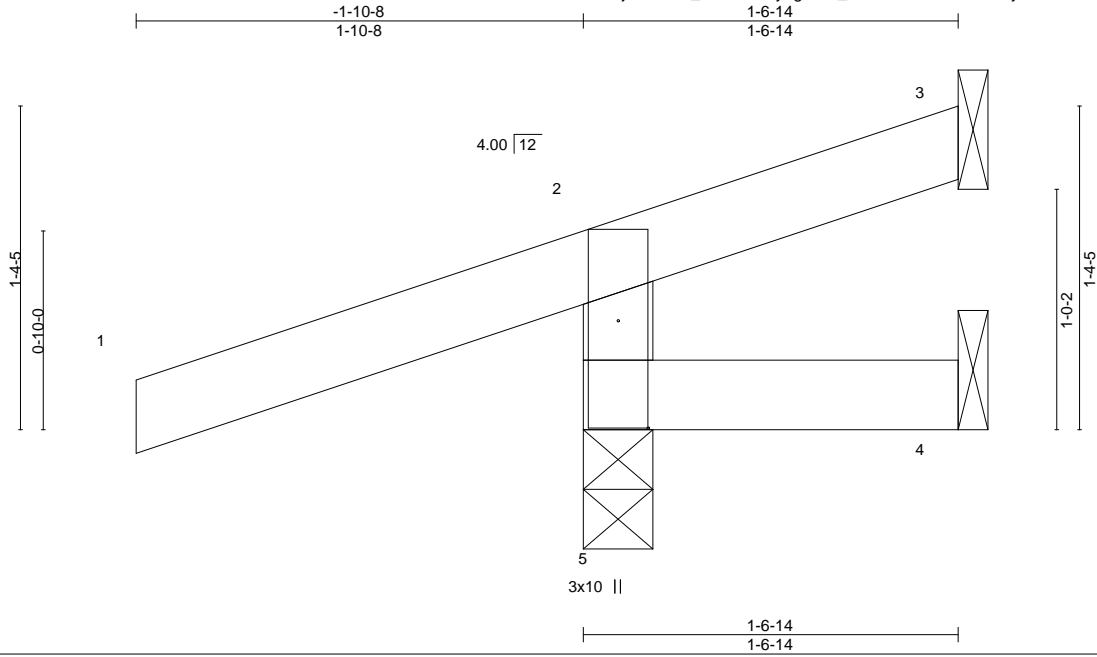


Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.28	Vert(LL) 0.00	0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.08	Vert(CT) 0.00	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT) -0.00	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL) -0.00	-0.00	5	>999	240	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 1-6-14 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 4)  
 Max Uplift 5=-143(LC 4), 3=-22(LC 1), 4=-16(LC 1)  
 Max Grav 5=306(LC 1), 3=16(LC 4), 4=18(LC 4)

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

TOP CHORD 2-5=-262/142

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=143.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 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



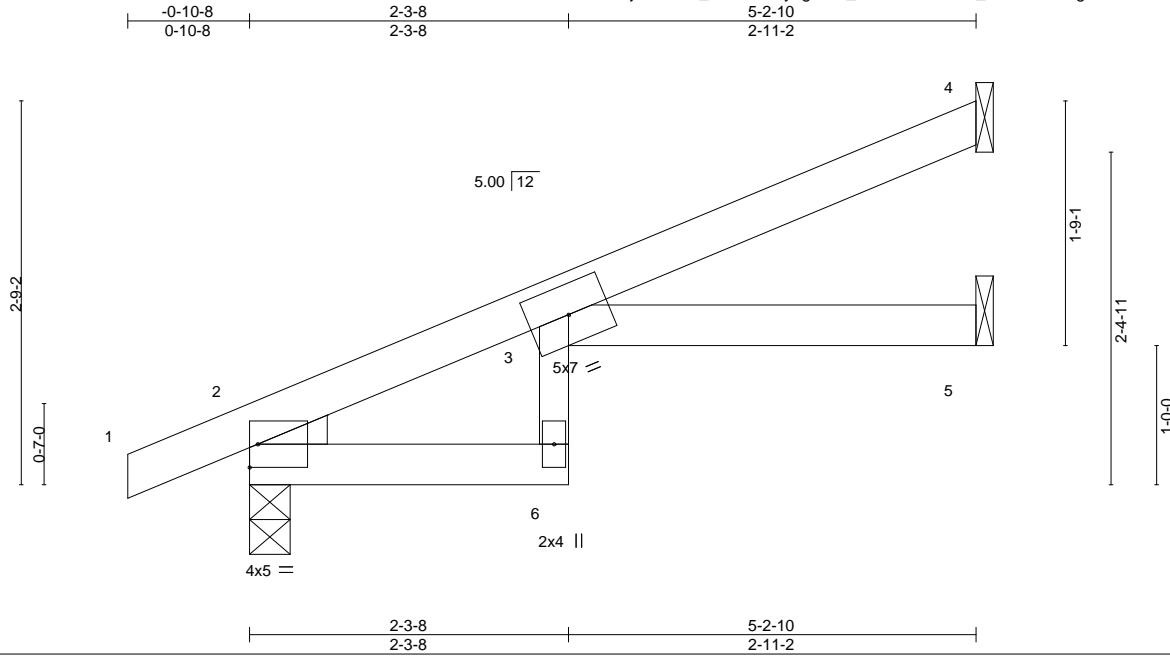
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686583
RR118	J5	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:36 2021 Page 1

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Scale = 1:16.6

Plate Offsets (X,Y)-- [3:0-0-0-0-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.48	Vert(LL) -0.06	3	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(CT) -0.10	3	>583	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.07	5	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.06	3	>966	240		Weight: 15 lb	FT = 10%

**LUMBER-**

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

**WEDGE**

Left: 2x3 SPF No.2

**REACTIONS.**

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
 Max Horz 2=102(LC 8)  
 Max Uplift 4=-58(LC 8), 2=-44(LC 8), 5=-6(LC 8)  
 Max Grav 4=135(LC 1), 2=304(LC 1), 5=87(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) 4, 2, 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.



November 8, 2021

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

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

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



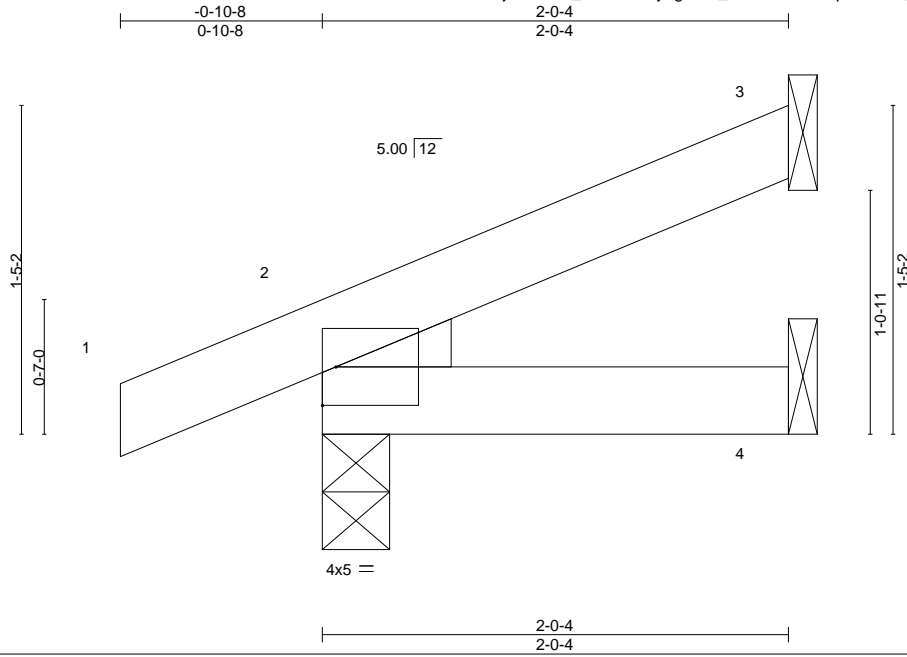
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686584
RR118	J6	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:39 2021 Page 1

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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 6 lb	FT = 10%

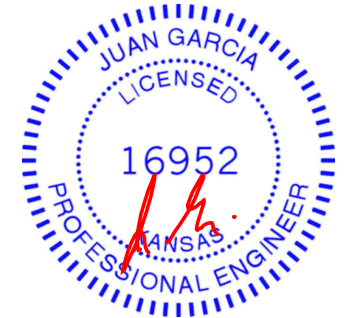
**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x3 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-0-4 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=48(LC 8)  
Max Uplift 3=-33(LC 8), 2=-36(LC 4)  
Max Grav 3=43(LC 1), 2=173(LC 1), 4=36(LC 3)

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

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



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686585
RR118	J7	Jack-Closed	3	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:42 2021 Page 1  
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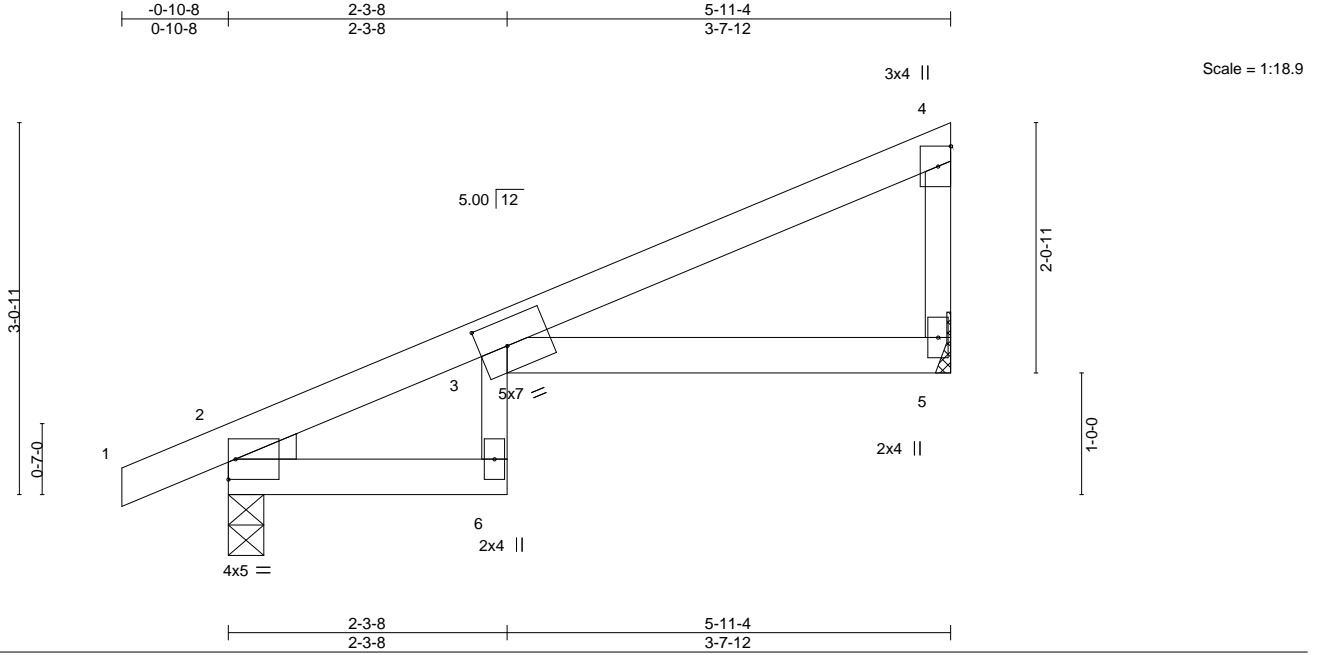


Plate Offsets (X,Y)--	[3:0-2-12,0-2-9]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.60	Vert(LL) -0.10	6	>711	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.33	Vert(CT) -0.17	6	>397	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.11	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.10	6	>705	240	Weight: 18 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except* 3-6: 2x3 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	
WEDGE Left: 2x3 SPF No.2	

**REACTIONS.** (size) 5=Mechanical, 2=0-3-8  
 Max Horz 2=104(LC 5)  
 Max Uplift 5=61(LC 8), 2=58(LC 8)  
 Max Grav 5=250(LC 1), 2=334(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) 5, 2.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



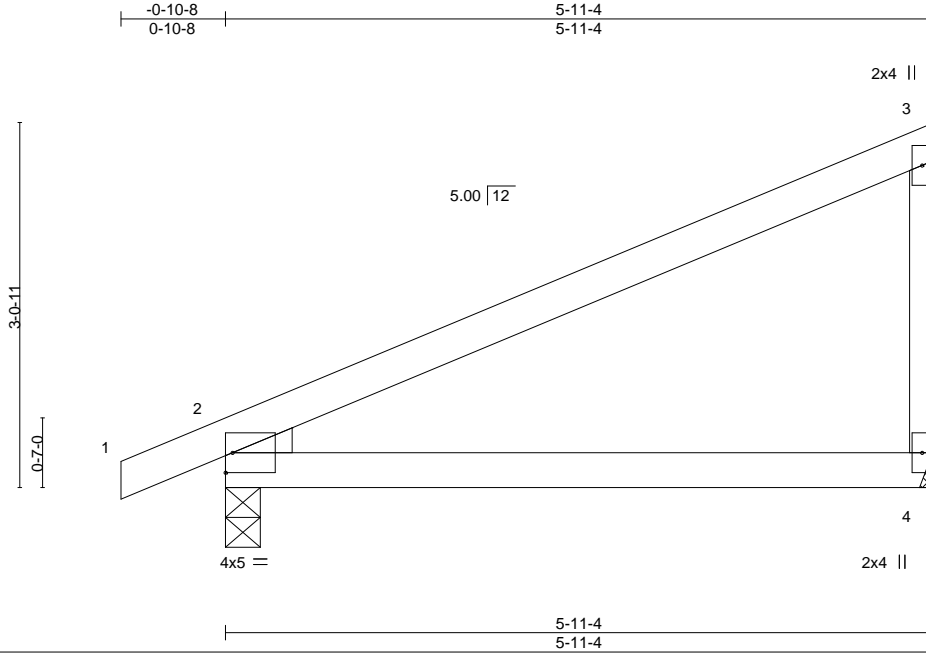
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686586
RR118	J8	Jack-Closed	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:44 2021 Page 1

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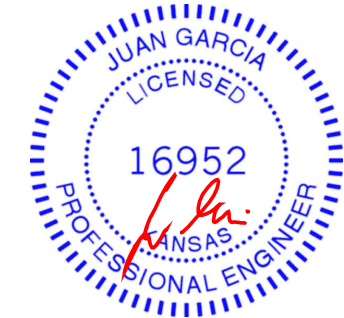
LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.60	Vert(LL) -0.06	2-4	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.35	Vert(CT) -0.13	2-4	>544	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	4	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	Wind(LL) 0.00	2	****	240		Weight: 18 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2	
WEDGE	
Left: 2x3 SPF No.2	

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8  
 Max Horz 2=120(LC 5)  
 Max Uplift 4=-59(LC 8), 2=-60(LC 8)  
 Max Grav 4=250(LC 1), 2=334(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.



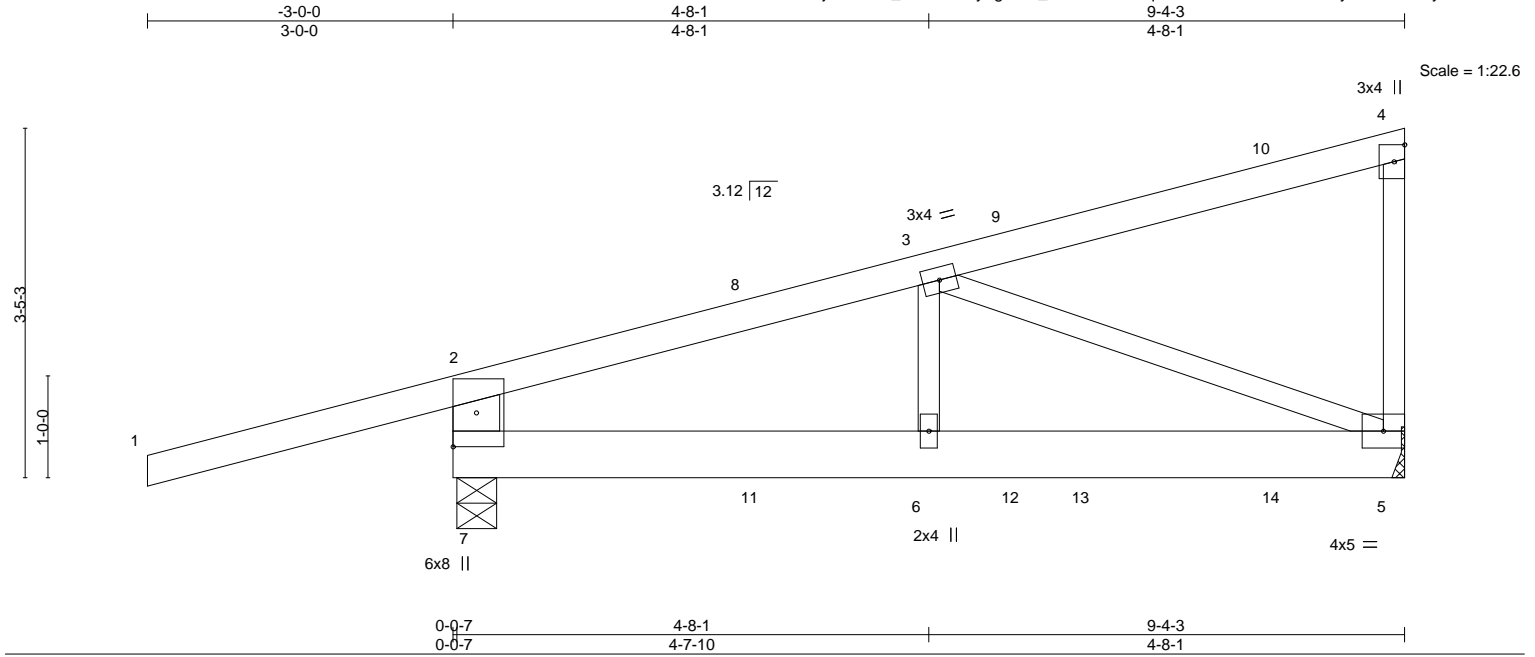
November 8, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686587
RR118	J10	Diagonal Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:05 2021 Page 1  
ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-Ze0x007lqTIPGaib?5tVvwzDNhmatyJ8znCPmByMHs0



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.87	Vert(LL) -0.05	5-6	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.08	5-6	>999	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.29	Horz(CT) 0.00	5	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.04	5-6	>999	240			

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-7: 2x6 SPF No.2	

**REACTIONS.** (size) 7=0-4-11, 5=Mechanical  
Max Horz 7=145(LC 5)  
Max Uplift 7=-266(LC 4), 5=-149(LC 8)  
Max Grav 7=715(LC 1), 5=535(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-7=-554/247, 2-3=-563/132  
BOT CHORD 6-7=-165/481, 5-6=-165/481  
WEBS 3-5=-490/167

- 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=266, 5=149.
  - 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) 55 lb down and 94 lb up at 2-11-15, 78 lb down and 36 lb up at 3-0-9, and 79 lb down and 54 lb up at 5-6-11, and 102 lb down and 86 lb up at 8-1-6 on top chord, and 10 lb down and 16 lb up at 2-11-15, 9 lb down and 7 lb up at 3-0-9, 16 lb down and 2 lb up at 5-6-11, and 168 lb down and 75 lb up at 6-2-15, and 40 lb down at 8-1-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-70, 2-4=-70, 5-7=-20  
Concentrated Loads (lb)  
Vert: 8=26(B) 10=-54(B) 11=7(F) 12=2(B) 13=-168(F) 14=-25(B)



November 8, 2021

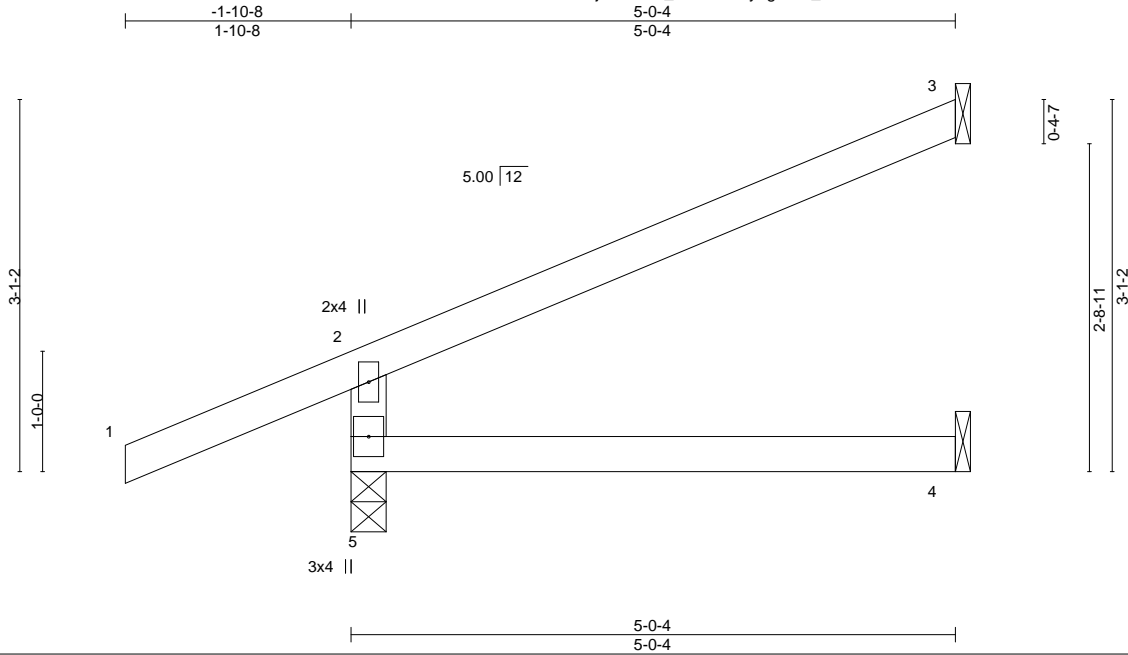


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686588
RR118	J11	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:06 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_170-1rZKEM8NamtGktHoZoOks8WX25AfcT8ICRxyleyMHs?



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	2-0-0	TC 0.30	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.20	Vert(LL) -0.02 4-5 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Vert(CT) -0.05 4-5 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Horz(CT) -0.02 3 n/a n/a		
	Code IRC2018/TPI2014		Wind(LL) 0.02 4-5 >999 240	Weight: 15 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 5-0-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

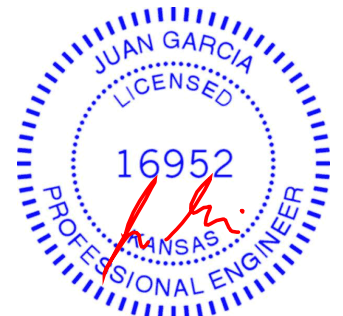
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=101(LC 8)  
 Max Uplift 5=66(LC 4), 3=75(LC 8)  
 Max Grav 5=388(LC 1), 3=138(LC 1), 4=88(LC 3)

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

TOP CHORD 2-5=-340/110

**NOTES-**

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



November 8, 2021

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



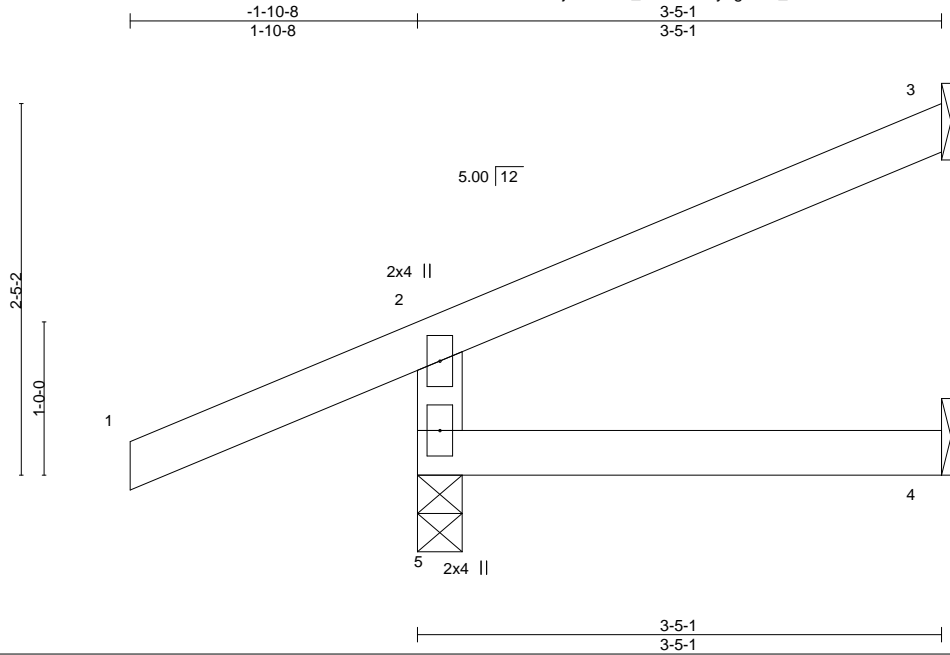
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686589
RR118	J12	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:06 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-1rZKEM8NamGtKHoZoOkS8WXF5CccT8ICRxyleyMHs?



Scale = 1:15.0

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 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 3-5-1 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

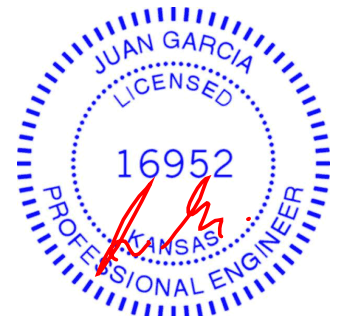
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=73(LC 8)  
 Max Uplift 5=-71(LC 4), 3=-48(LC 8)  
 Max Grav 5=330(LC 1), 3=77(LC 1), 4=57(LC 3)

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

TOP CHORD 2-5=-289/94

**NOTES-**

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



November 8, 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



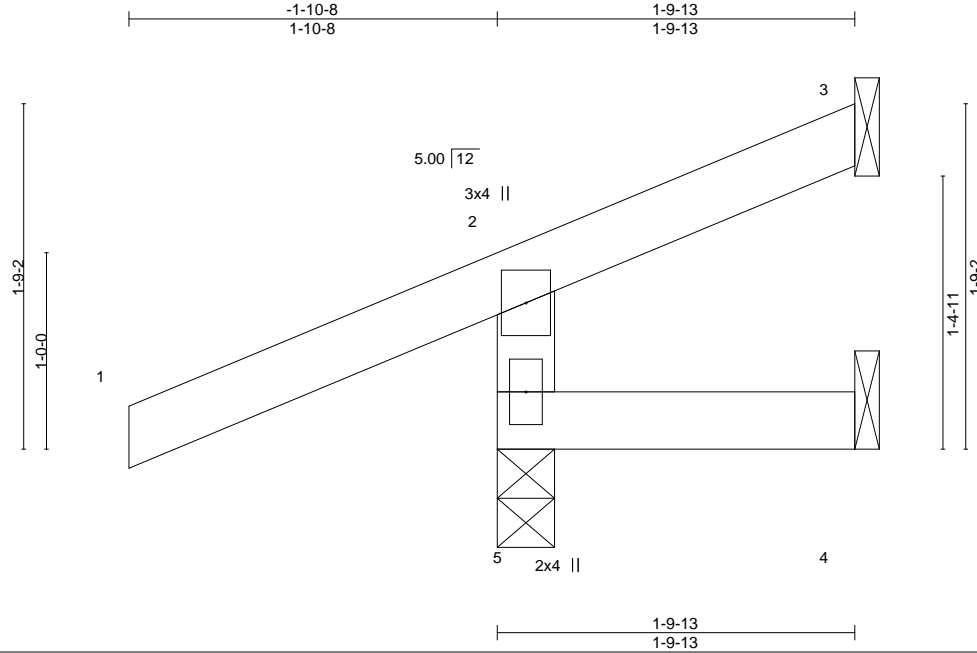
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686590
RR118	J13	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:07 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWaz\_t70-V17iRi8?L4?7Vts\_6Wvz?L2i?VYtLwORR5hVq4yMHs\_



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.28	Vert(LL) 0.00	4-5	>999	360		MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT) 0.00	4-5	>999	240			
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT) -0.01	3	n/a	n/a			
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL) -0.00	5	>999	240			
	Code IRC2018/TPI2014							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 1-9-13 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=53(LC 5)  
 Max Uplift 5=-87(LC 4), 3=-14(LC 8), 4=-7(LC 1)  
 Max Grav 5=302(LC 1), 3=4(LC 4), 4=24(LC 3)

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

TOP CHORD 2-5=-262/96

**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) 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.



November 8, 2021

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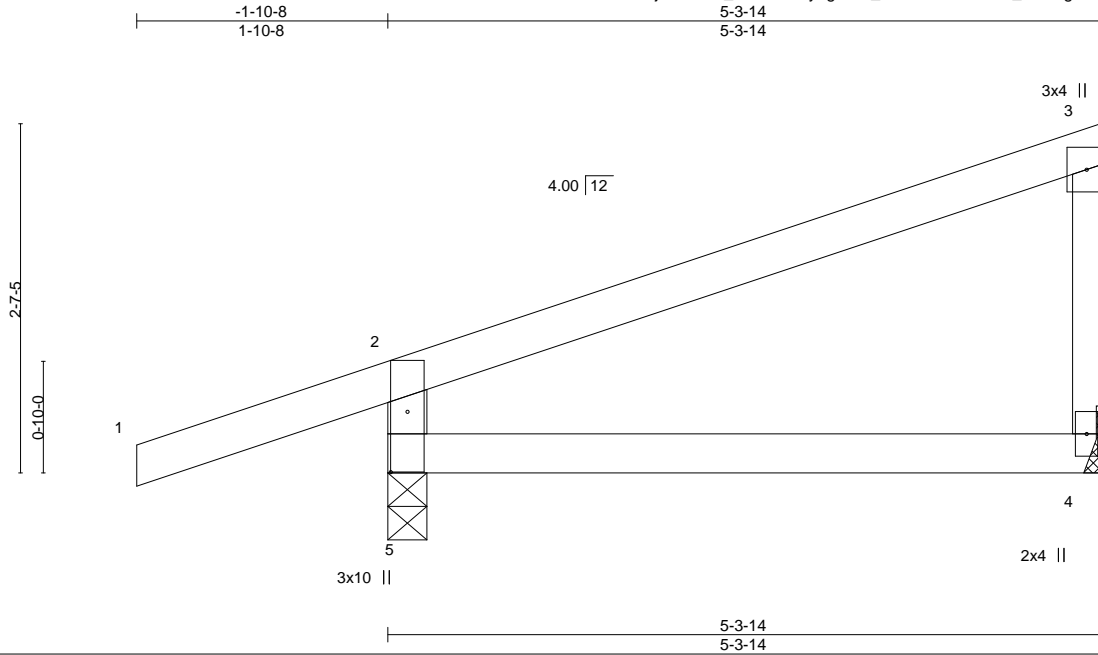


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686591
RR118	J14	Jack-Closed	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:08 2021 Page 1  
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Scale = 1:17.2

Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.29	Vert(LL) -0.03	4-5	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.20	Vert(CT) -0.05	4-5	>999	240			
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	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: 17 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 5-3-14 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

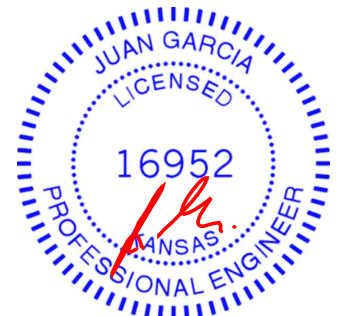
(size) 5=0-3-8, 4=Mechanical  
 Max Horz 5=112(LC 5)  
 Max Uplift 5=-136(LC 4), 4=-43(LC 8)  
 Max Grav 5=398(LC 1), 4=200(LC 1)

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

TOP CHORD 2-5=-352/170

**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=136.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686592
RR118	J15	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:08 2021 Page 1  
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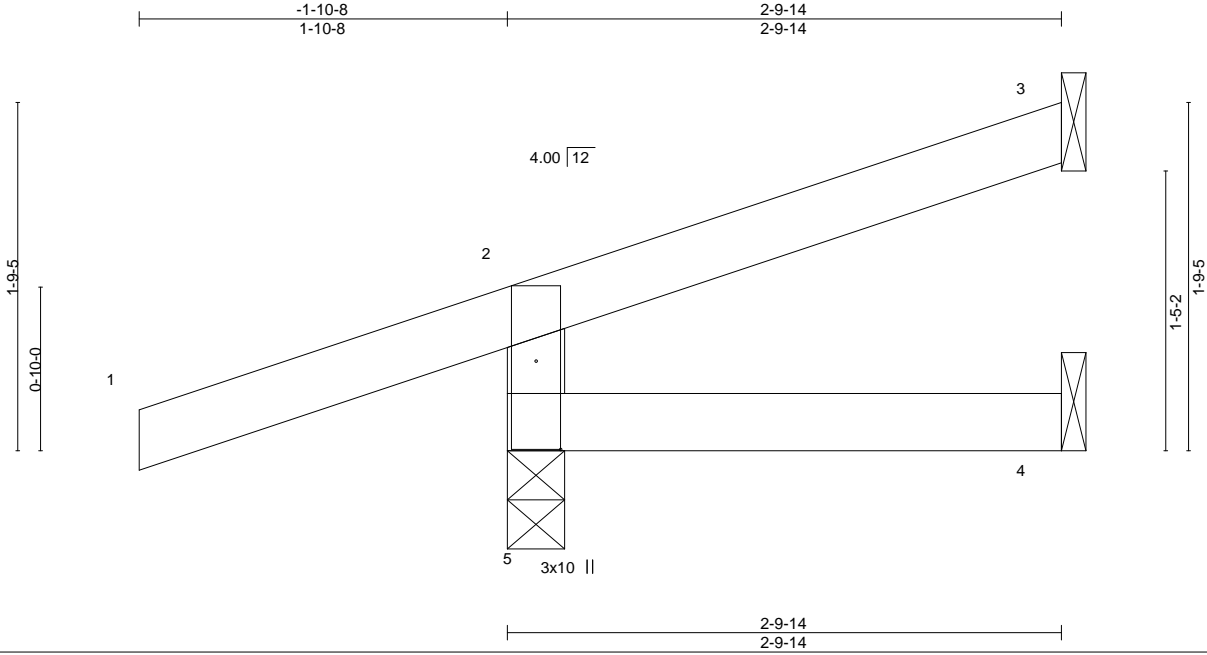


Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]

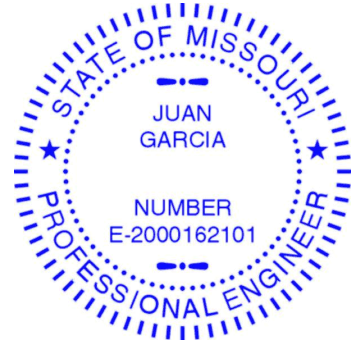
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) 0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(CT) -0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) -0.00	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=62(LC 4)  
 Max Uplift 5=-124(LC 4), 3=-31(LC 8)  
 Max Grav 5=314(LC 1), 3=52(LC 1), 4=44(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-273/139

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=124.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



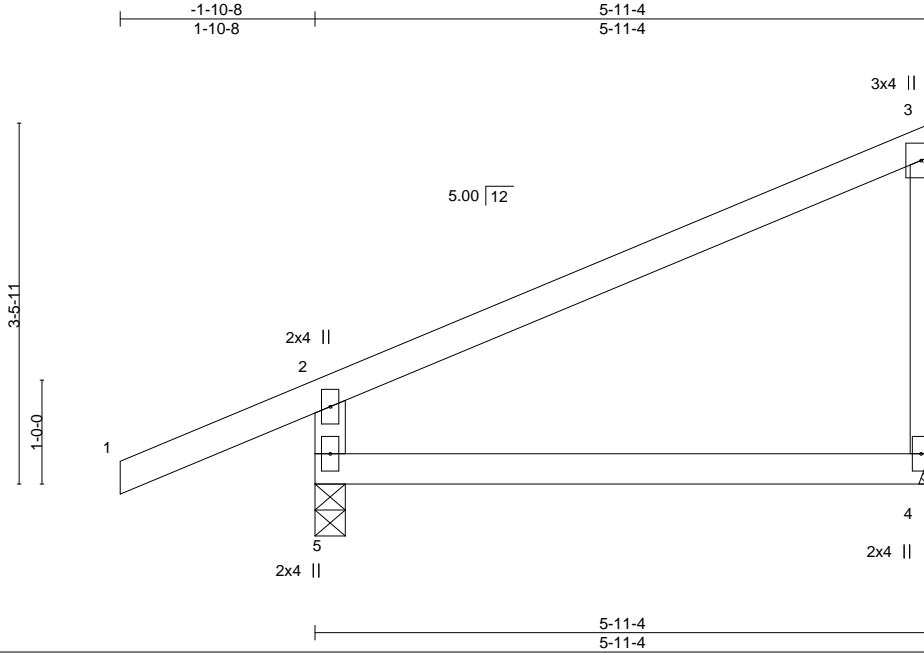
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686593
RR118	J16	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:09 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_170-RPFsOAGthFrkB0NExyR4m71wIAOpqtkuPAcuzyMHry



Scale = 1:22.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL) -0.04	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT) -0.09	4-5	>773		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT) -0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL) 0.02	4-5	>999	Weight: 19 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except*	
3-4: 2x3 SPF No.2	

**REACTIONS.** (size) 5=0-3-8, 4=Mechanical  
 Max Horz 5=150(LC 5)  
 Max Uplift 5=-85(LC 8), 4=-56(LC 8)  
 Max Grav 5=423(LC 1), 4=231(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-373/129

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



November 8, 2021

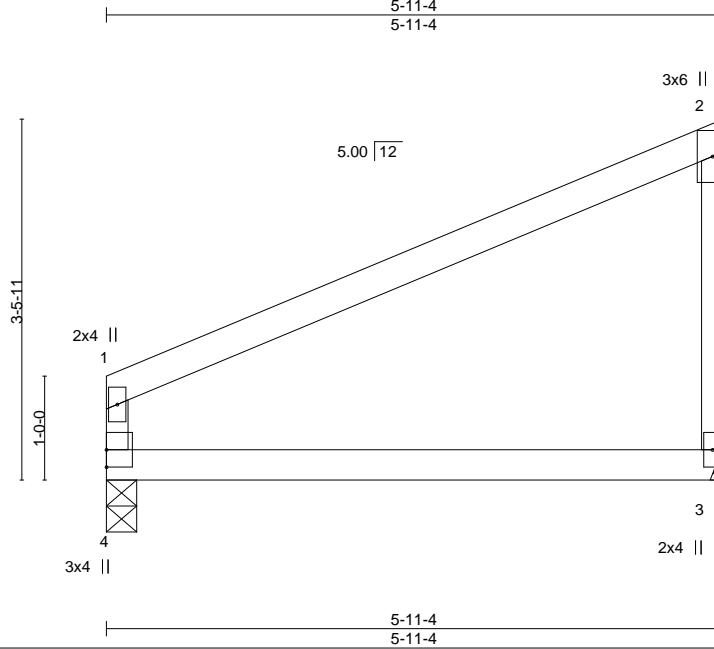


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686594
RR118	J17	Jack-Closed	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:10 2021 Page 1

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Scale = 1:22.2

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.50	Vert(LL)	-0.05	3-4	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.28	Vert(CT)	-0.10	3-4	>707	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.02	3-4	>999	240	Weight: 17 lb	FT = 10%
	Code IRC2018/TPI2014								

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 4=0-3-8, 3=Mechanical  
 Max Horz 4=133(LC 5)  
 Max Uplift 4=-33(LC 8), 3=-63(LC 8)  
 Max Grav 4=258(LC 1), 3=258(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, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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

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

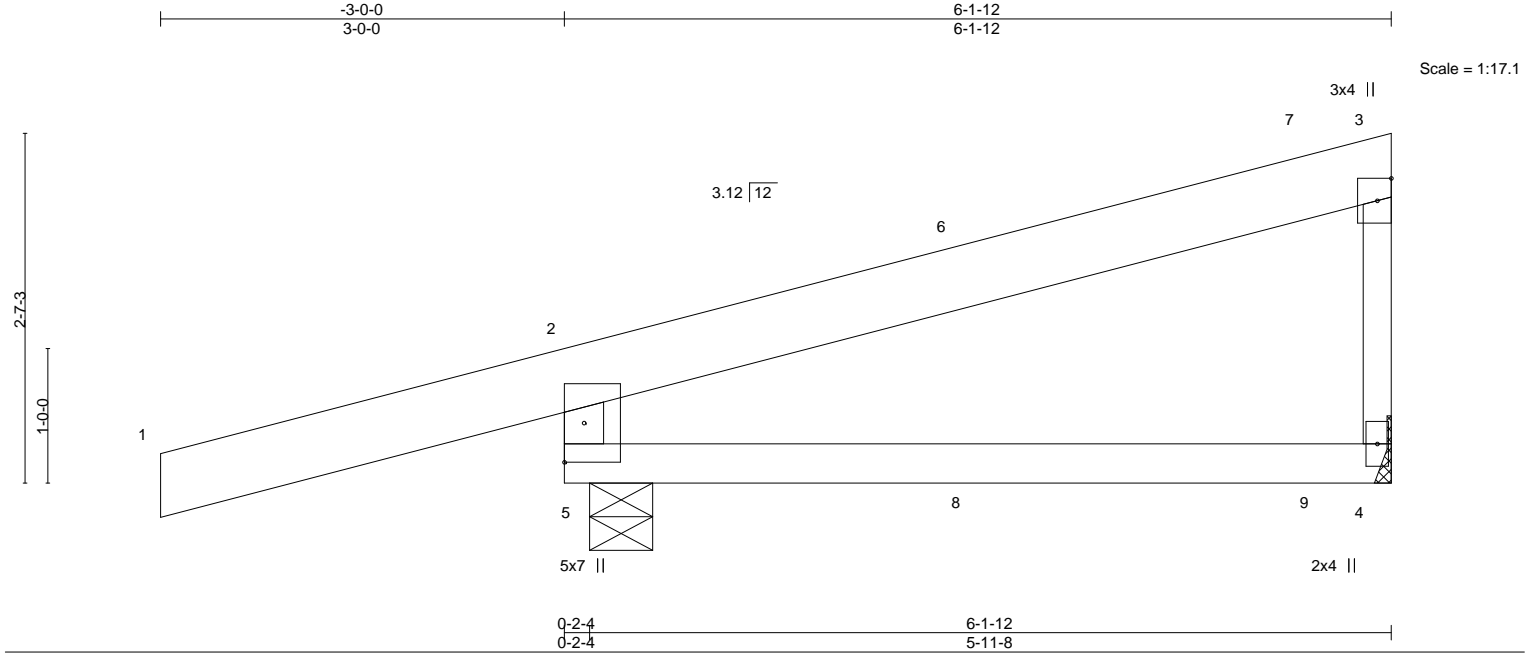


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686595
RR118	J18	Diagonal Hip Girder	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:11 2021 Page 1  
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.09	4-5	>764	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)	-0.02	4-5	>999	240	Weight: 26 lb	FT = 10%

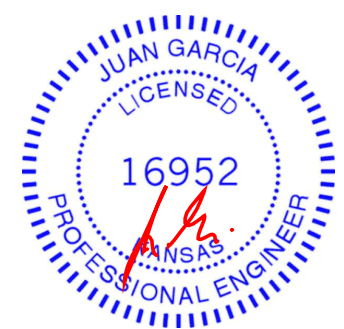
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SPF 1650F 1.4E	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 3-4: 2x3 SPF No.2	

**REACTIONS.** (size) 5=0-5-10, 4=Mechanical  
 Max Horz 5=108(LC 7)  
 Max Uplift 5=-212(LC 4), 4=-54(LC 8)  
 Max Grav 5=926(LC 41), 4=229(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-849/249

- 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=212.
  - 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) Load case(s) 40, 41 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 78 lb down and 36 lb up at 3-0-9, and 68 lb down and 65 lb up at 3-0-14, and 67 lb down and 54 lb up at 5-7-10 on top chord, and 9 lb down and 7 lb up at 3-0-9, and 10 lb down and 16 lb up at 3-0-14, and 24 lb down at 5-7-10 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 Except:  
 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=-20(B) 8=7(F) 9=-8(B)



November 8, 2021

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686595
RR118	J18	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:11 2021 Page 2  
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**LOAD CASE(S)**

- 40) Reversal: User defined: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
  - Concentrated Loads (lb)
    - Vert: 1=-250 6=1(B) 7=-20(B) 8=22(F=7, B=16) 9=-8(B)
- 41) User defined: Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)
  - Concentrated Loads (lb)
    - Vert: 1=-250 7=-20(B) 8=7(F) 9=-8(B)

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

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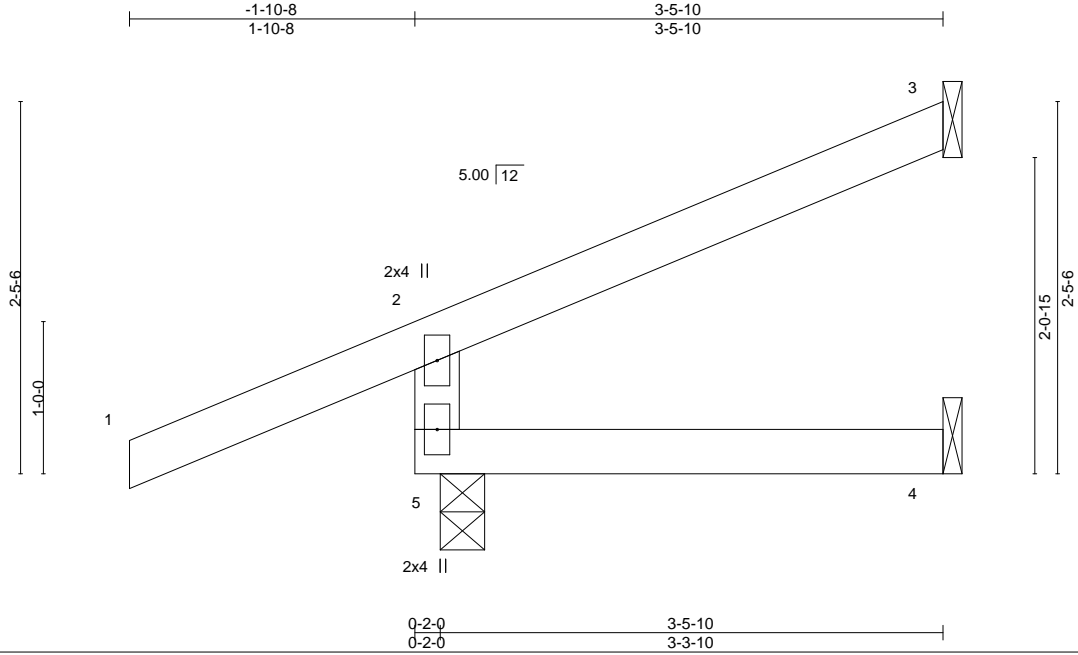
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686596
RR118	J19	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:11 2021 Page 1

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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 11 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-5-10 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=74(LC 8)  
 Max Uplift 5=-71(LC 4), 3=-49(LC 8)  
 Max Grav 5=332(LC 1), 3=79(LC 1), 4=58(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-290/95

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



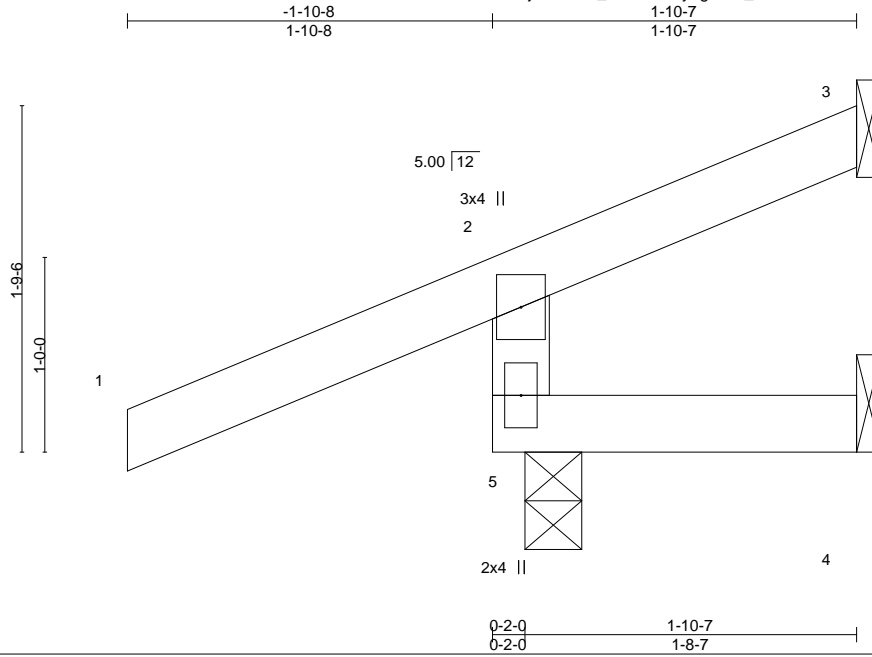
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686597
RR118	J20	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:13 2021 Page 1

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Scale = 1:11.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	0.00	4-5	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	-0.00	5	>999	240		
	Code IRC2018/TPI2014							Weight: 7 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

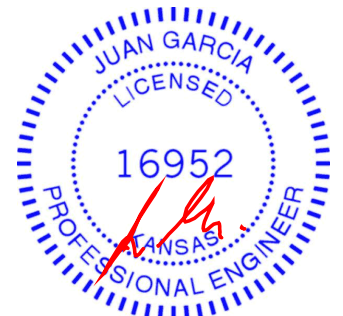
TOP CHORD Structural wood sheathing directly applied or 1-10-7 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
 Max Horz 5=53(LC 5)  
 Max Uplift 3=-16(LC 8), 4=-6(LC 1), 5=-86(LC 4)  
 Max Grav 3=5(LC 19), 4=25(LC 3), 5=302(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-262/95

**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, 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.



November 8, 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

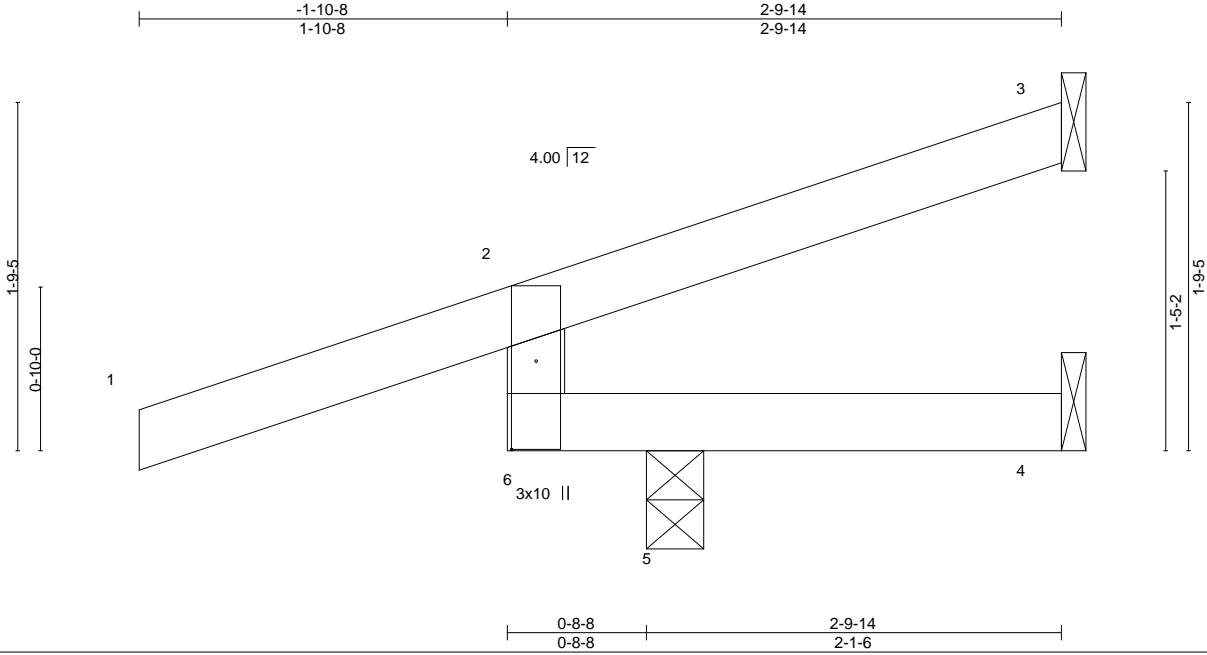


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686598
RR118	J21	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:13 2021 Page 1  
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Scale = 1:11.7

Plate Offsets (X,Y)--	[6:0-5-6,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	0.01	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	0.01	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.03	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.01	4-5	>999	Weight: 9 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
 Max Horz 5=62(LC 4)  
 Max Uplift 3=-25(LC 8), 4=-78(LC 1), 5=-187(LC 4)  
 Max Grav 3=25(LC 1), 4=55(LC 4), 5=430(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-6=-300/150

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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, 4 except (jt=lb) 5=187.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686599
RR118	J22	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:14 2021 Page 1  
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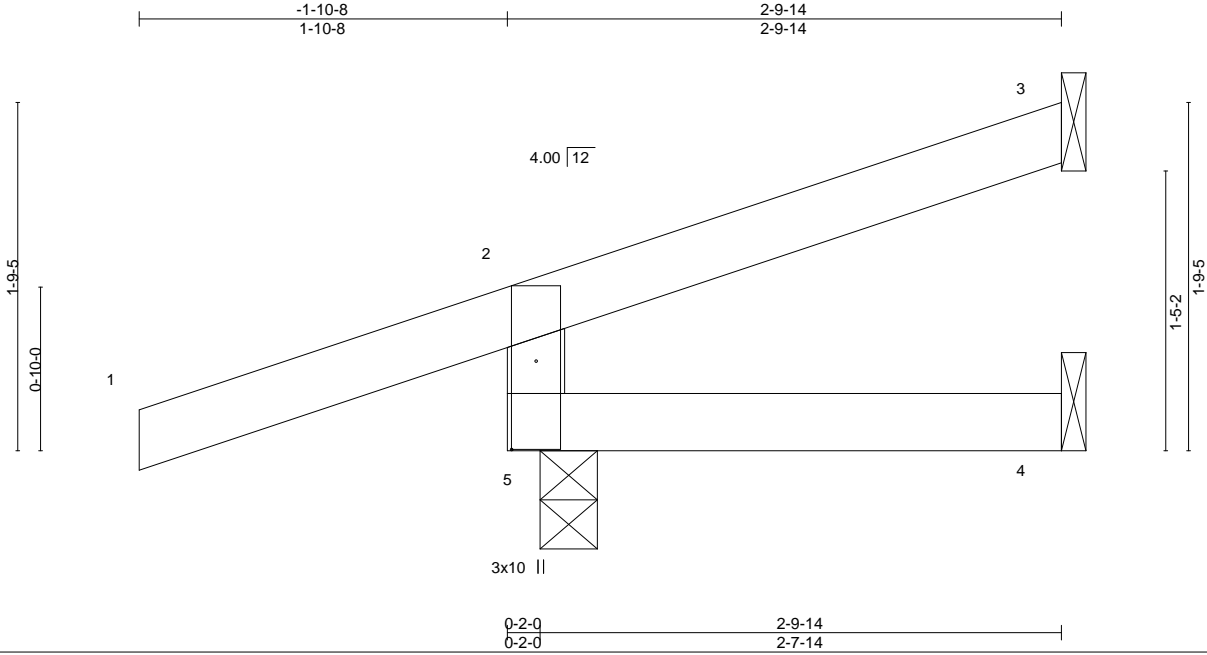


Plate Offsets (X,Y)--	[5:0-5-6,0-1-8]
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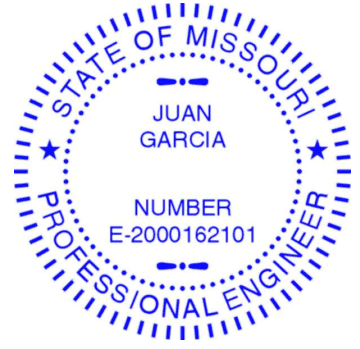
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.00	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	4-5	>999	Weight: 9 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=62(LC 4)  
 Max Uplift 5=-124(LC 4), 3=-31(LC 8)  
 Max Grav 5=314(LC 1), 3=52(LC 1), 4=44(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-273/139

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 5=124.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



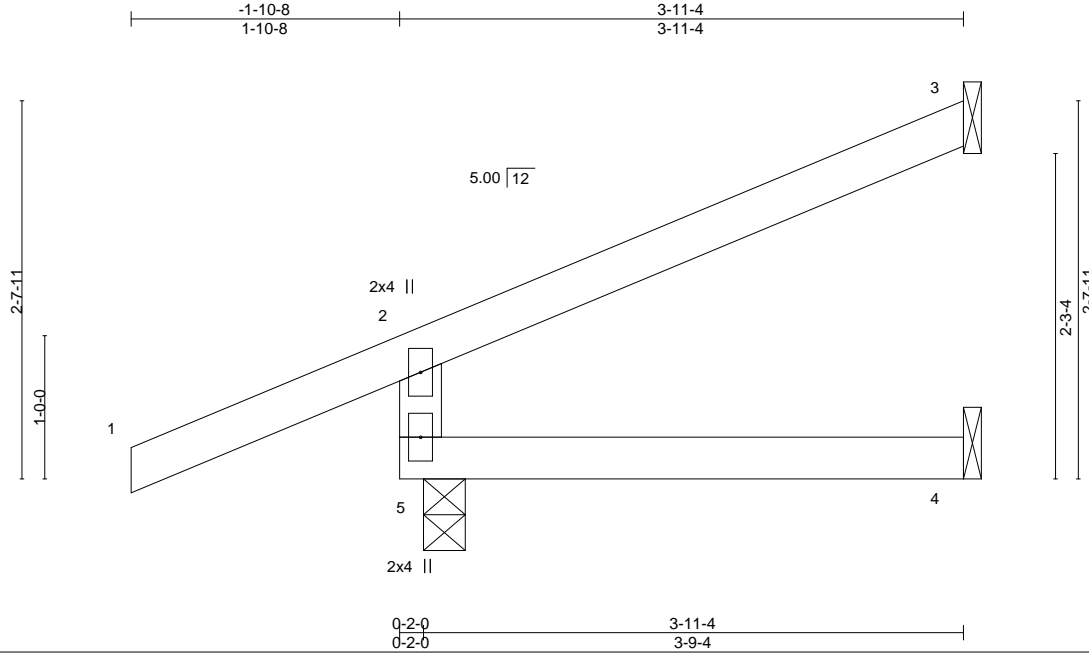
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686600
RR118	J23	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.01	4-5	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.11	Vert(CT) -0.02	4-5	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01	3	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01	4-5	>999	240		Weight: 12 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=82(LC 8)  
 Max Uplift 5=69(LC 4), 3=57(LC 8)  
 Max Grav 5=348(LC 1), 3=98(LC 1), 4=67(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-305/97

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



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686601
RR118	J24	Diagonal Hip Girder	1	1		

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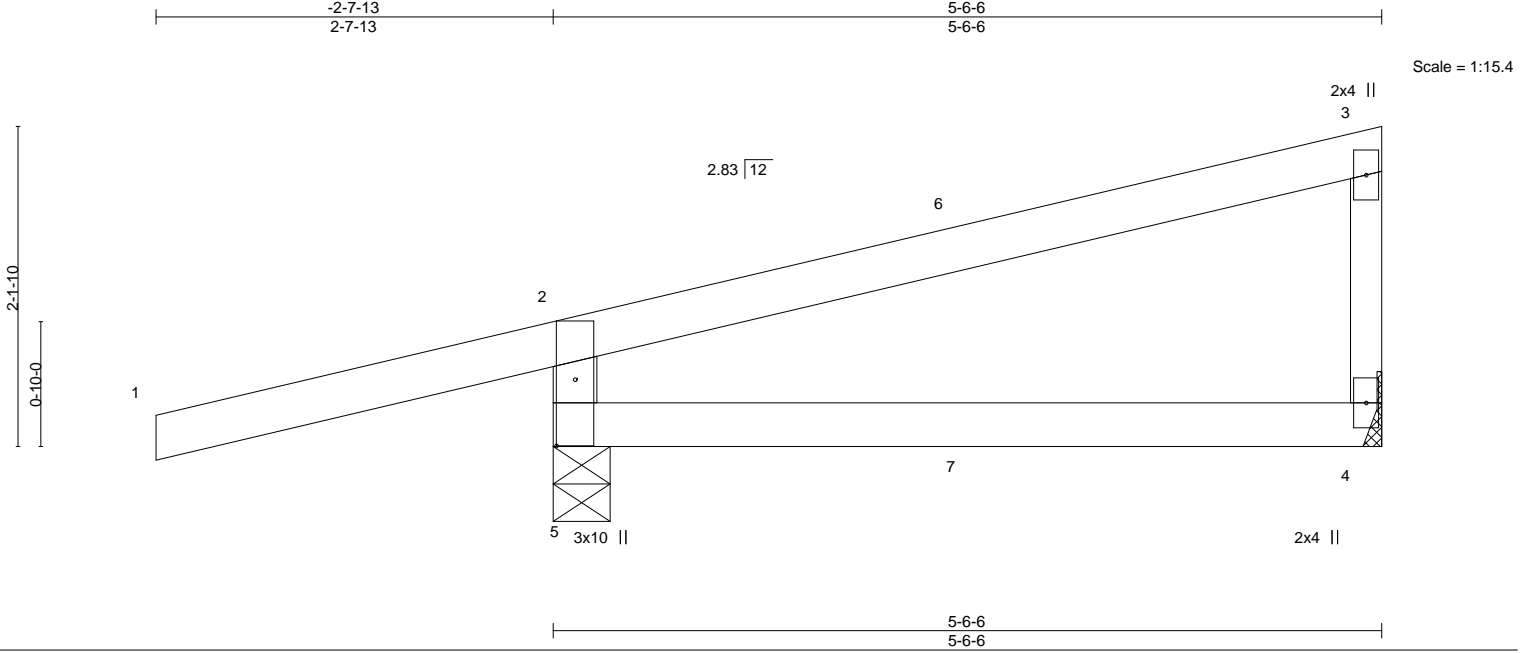


Plate Offsets (X,Y)-- [5:0-5-5,0-1-8]

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 0.63	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	-0.06	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)	-0.02	4-5	>999	240	Weight: 18 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2 *Except* 3-4: 2x3 SPF No.2	

**REACTIONS.** (size) 5=0-4-9, 4=Mechanical  
 Max Horz 5=88(LC 5)  
 Max Uplift 5=186(LC 4), 4=31(LC 8)  
 Max Grav 5=485(LC 1), 4=186(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=429/217

- 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=186.
  - 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) 70 lb down and 14 lb up at 2-9-8, and 70 lb down and 14 lb up at 2-9-8 on top chord, and 14 lb down and 16 lb up at 2-9-8, and 14 lb down and 16 lb up 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: 1-2=-70, 2-3=-70, 4-5=-20



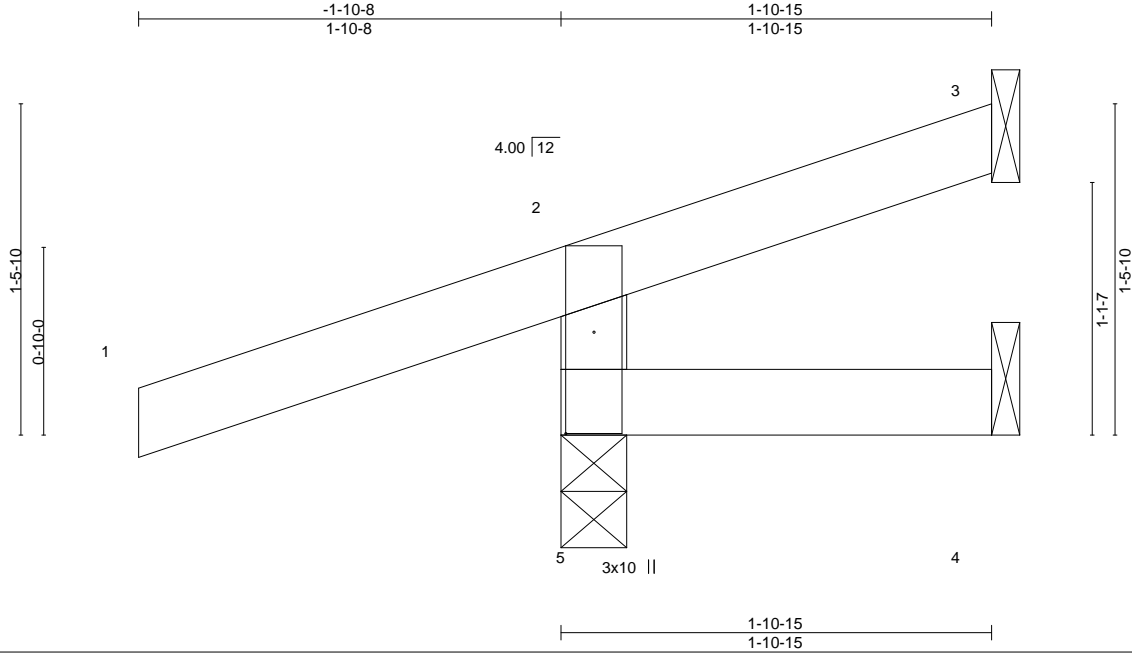
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686602
RR118	J25	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:10.2

LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.00	4-5	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	-0.00	5	>999	240	Weight: 7 lb	FT = 10%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=51(LC 4)  
 Max Uplift 5=-134(LC 4), 3=-13(LC 8), 4=-7(LC 1)  
 Max Grav 5=302(LC 1), 3=5(LC 18), 4=26(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-260/138

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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, 4 except (jt=lb) 5=134.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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

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

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



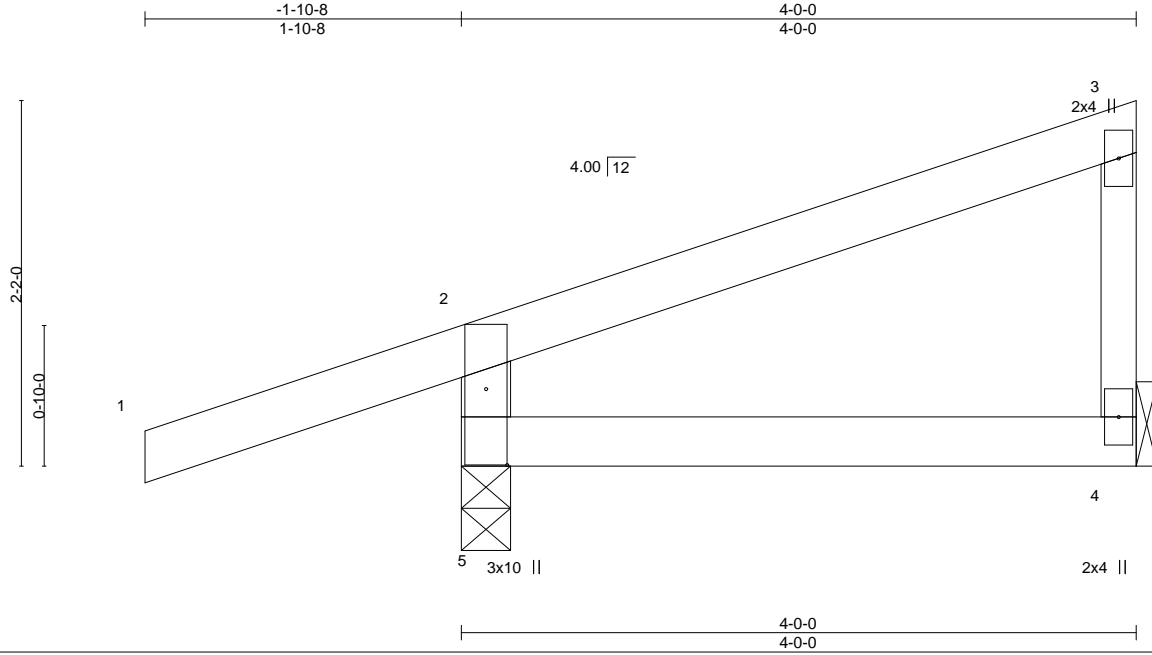
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686603
RR118	J26	Jack-Closed	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:17 2021 Page 1

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Scale = 1:13.7

Plate Offsets (X,Y)--	[5:0-5-6,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	4-5	>999	240	Weight: 13 lb	FT = 10%

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

**REACTIONS.** (size) 5=0-3-8, 4=Mechanical  
 Max Horz 5=93(LC 5)  
 Max Uplift 5=132(LC 4), 4=27(LC 8)  
 Max Grav 5=348(LC 1), 4=131(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=308/154

- 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=132.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



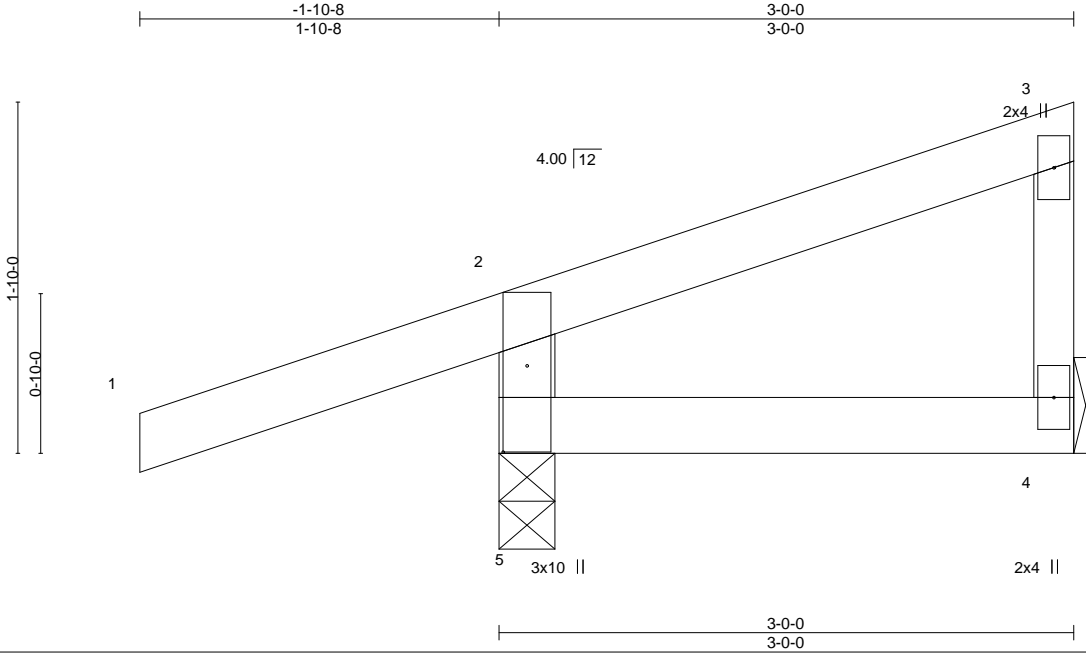
November 8, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686604
RR118	J27	Jack-Closed	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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Scale: 1"=1'

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 0.28	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240		
									Weight: 11 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 5=0-3-8, 4=Mechanical  
 Max Horz 5=78(LC 5)  
 Max Uplift 5=133(LC 4), 4=17(LC 5)  
 Max Grav 5=317(LC 1), 4=72(LC 1)

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

TOP CHORD 2-5=279/145

**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=133.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 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  
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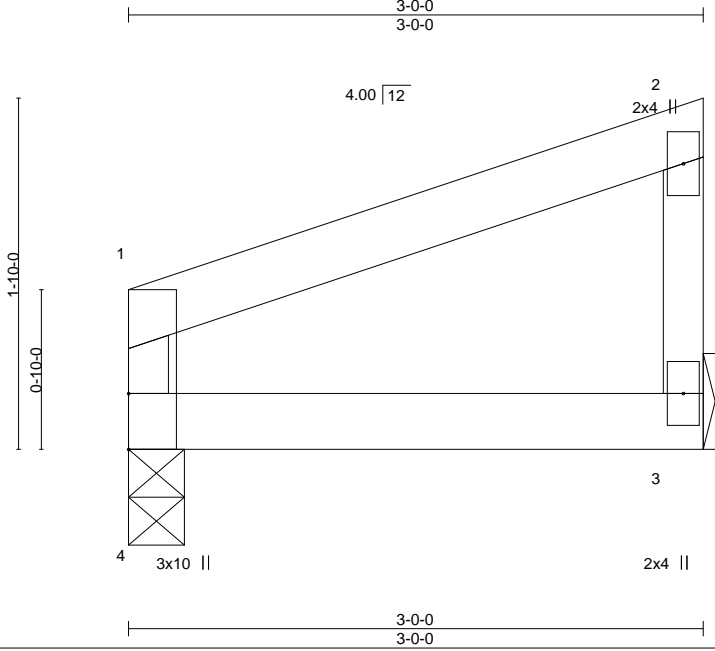


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686605
RR118	J28	Jack-Closed	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:18 2021 Page 1

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Scale: 1"=1'

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.10	Vert(LL)	-0.00	3-4	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.06	Vert(CT)	-0.01	3-4	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R	Wind(LL)	0.00	4	>999	240	Weight: 8 lb	FT = 10%
	Code IRC2018/TPI2014								

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 4=0-3-8, 3=Mechanical  
 Max Horz 4=63(LC 5)  
 Max Uplift 4=-19(LC 4), 3=-29(LC 8)  
 Max Grav 4=126(LC 1), 3=126(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, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686606
RR118	J29	Jack-Closed Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871, 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:19 2021 Page 1  
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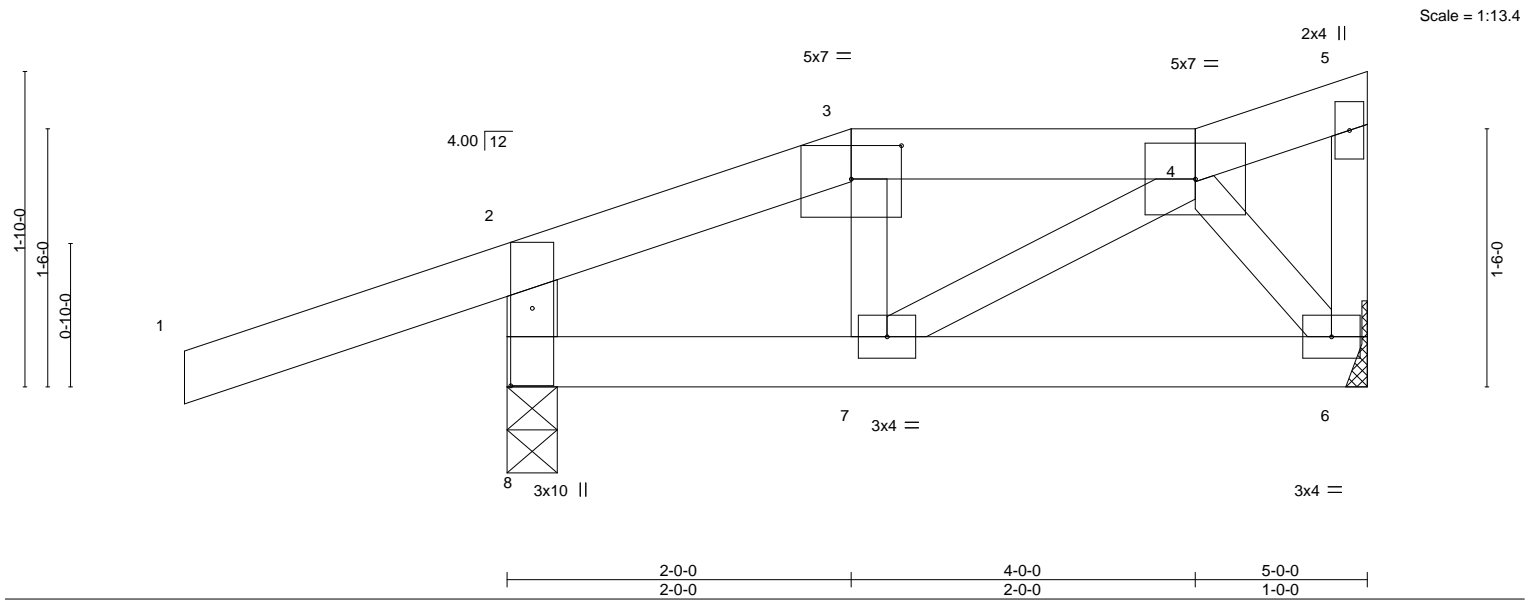


Plate Offsets (X,Y)-- [3:0-3-8,0-2-5], [8:0-5-6,0-1-8]

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.32	Vert(LL) -0.01	7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) -0.01	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.03	Horz(CT) 0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.00	7	>999	240	Weight: 19 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x3 SPF No.2 *Except* 2-8: 2x4 SPF No.2	

**REACTIONS.** (size) 8=0-3-8, 6=Mechanical  
 Max Horz 8=78(LC 5)  
 Max Uplift 8=166(LC 4), 6=52(LC 8)  
 Max Grav 8=364(LC 1), 6=170(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-8=313/160

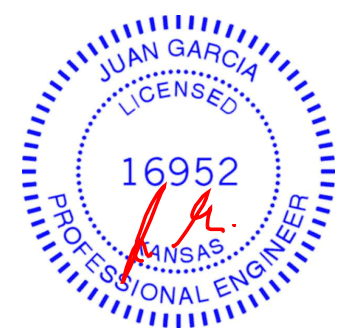
- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Provide adequate drainage to prevent water ponding.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 8=166.
  - 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) 59 lb down and 126 lb up at 2-0-0 on top chord, and 29 lb down and 60 lb up at 2-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
 Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-70, 6-8=-20

Concentrated Loads (lb)  
 Vert: 3=35(B)



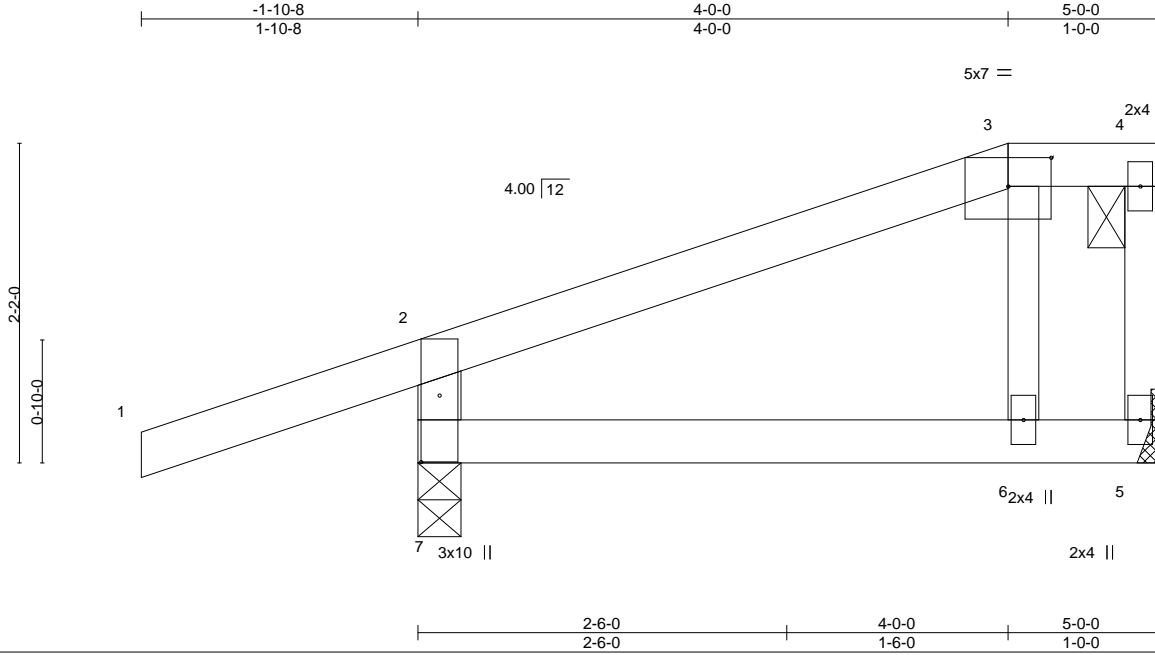
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686607
RR118	J30	Jack-Closed	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:15.6

Plate Offsets (X,Y)-- [3:0-3-8,0-2-5], [7:0-5-6,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.01	6-7	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT) -0.03	6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) 0.01	6-7	>999	240		
							Weight: 17 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 7=0-3-8, 5=Mechanical  
 Max Horz 7=95(LC 5)  
 Max Uplift 7=137(LC 4), 5=32(LC 5)  
 Max Grav 7=385(LC 1), 5=184(LC 1)

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

TOP CHORD 2-7=326/156

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=137.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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

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

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

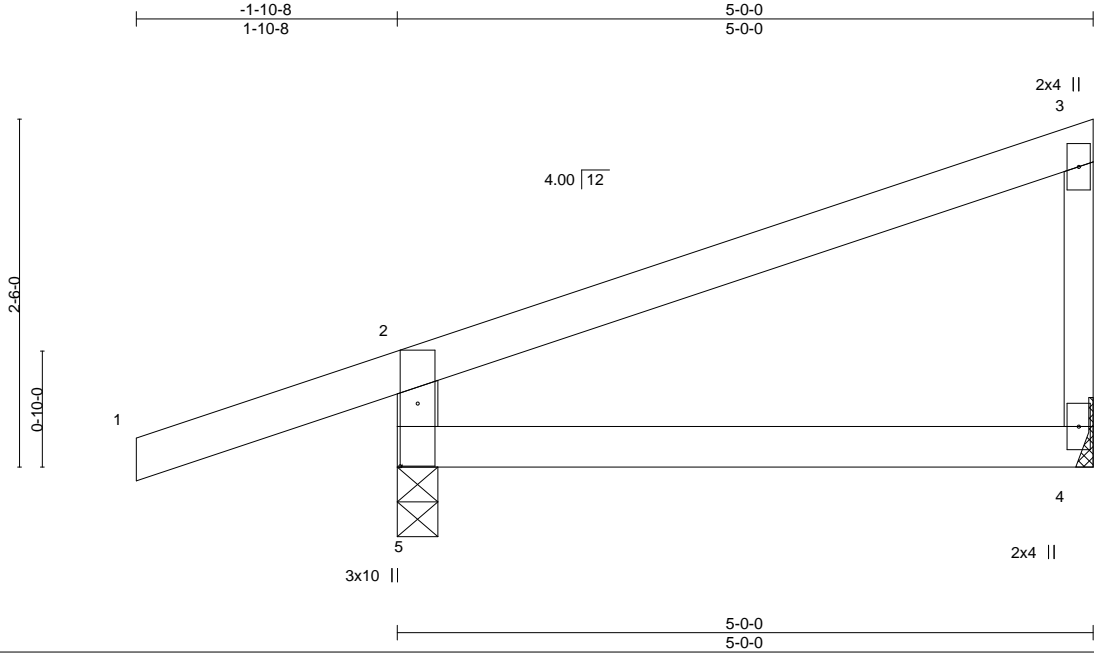


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686608
RR118	J31	Jack-Closed	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:21 2021 Page 1  
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Scale = 1:16.6

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 0.28	Vert(LL)	-0.02	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.04	4-5	>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-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 5-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 4=Mechanical  
 Max Horz 5=108(LC 5)  
 Max Uplift 5=134(LC 4), 4=40(LC 8)  
 Max Grav 5=385(LC 1), 4=184(LC 1)

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

TOP CHORD 2-5=340/166

**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=134.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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

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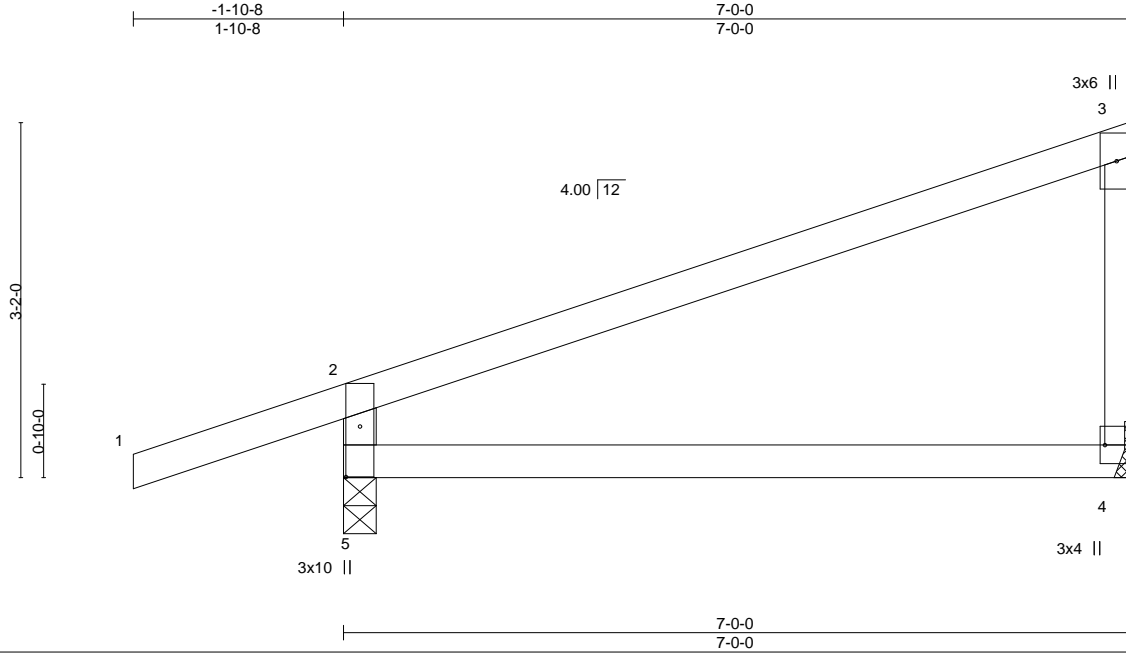
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686609
RR118	J32	Jack-Closed	6	1		

Wheeler Lumber, Waverly, KS - 66871,

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Scale = 1:20.6

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

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.58	Vert(LL) -0.08	4-5	>985	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.38	Vert(CT) -0.17	4-5	>472	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-R	Wind(LL) 0.03	4-5	>999	240		Weight: 21 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 6'-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-3-8, 4=Mechanical  
 Max Horz 5=137(LC 5)  
 Max Uplift 5=144(LC 4), 4=62(LC 8)  
 Max Grav 5=466(LC 1), 4=283(LC 1)

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

TOP CHORD 2-5=412/192

**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=144.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686610
RR118	J33	Diagonal Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:23 2021 Page 1  
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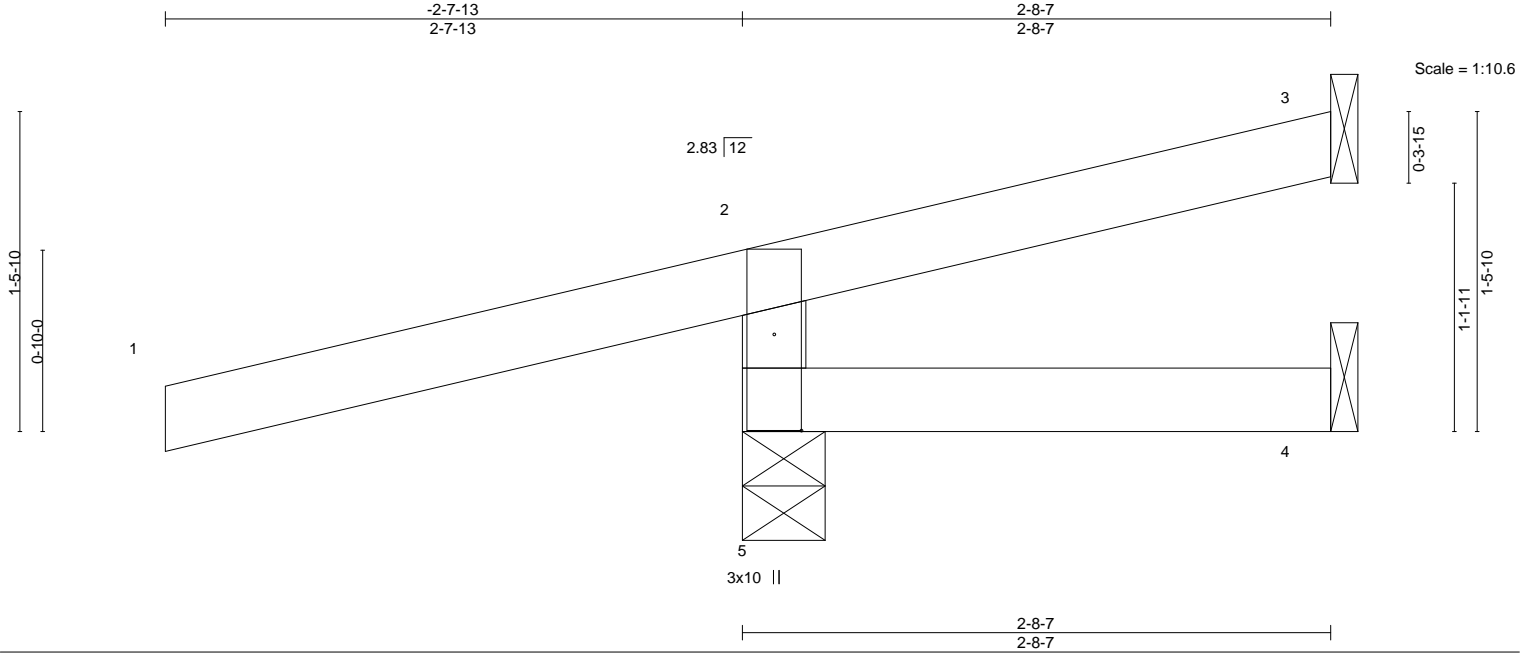


Plate Offsets (X,Y)-- [5:0-5-5,0-1-8] 2-8-7 2-8-7

LOADING (psf)	SPACING-	CSL.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) 0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) 0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) -0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) -0.01	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=0-4-9, 3=Mechanical, 4=Mechanical  
 Max Horz 5=52(LC 7)  
 Max Uplift 5=-158(LC 4), 3=-42(LC 17), 4=-26(LC 1)  
 Max Grav 5=276(LC 1), 3=23(LC 4), 4=28(LC 4)

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

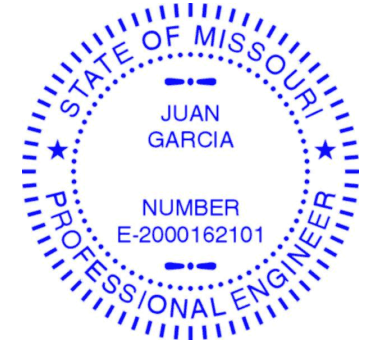
- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been 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, 4 except (jt=lb) 5=158.
  - 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) 46 lb down and 16 lb up at -2-7-13, and 46 lb down and 16 lb up at -2-7-13 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=-71(F=-36, B=36)

Trapezoidal Loads (plf)  
 Vert: 1=0(F=35, B=35)-to-2=-49(F=11, B=11), 2=-5(F=33, B=33)-to-3=-49(F=10, B=10), 5=0(F=10, B=10)-to-4=-14(F=3, B=3)



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Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686611
RR118	J34	Diagonal Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:23 2021 Page 1  
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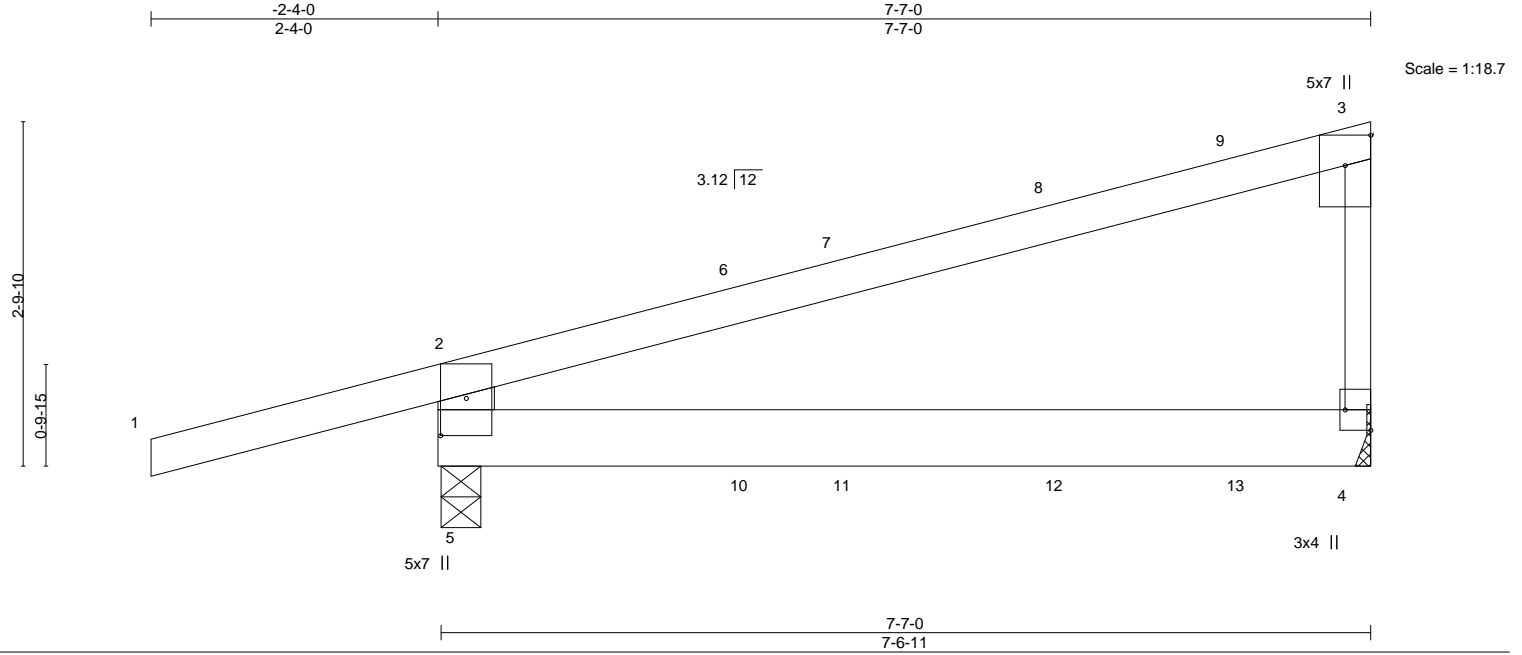


Plate Offsets (X,Y)-- [3:Edge,0-2-8], [4:Edge,0-2-8], [5:0-3-10,0-2-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.81	Vert(LL) -0.04	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.29	Vert(CT) -0.08	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) 0.02	4-5	>999	240	Weight: 27 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SPF No.2 *Except* 3-4: 2x3 SPF No.2	

**REACTIONS.** (size) 5=0-3-14, 4=Mechanical  
 Max Horz 5=115(LC 5)  
 Max Uplift 5=191(LC 4), 4=91(LC 8)  
 Max Grav 5=553(LC 1), 4=380(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=501/250, 3-4=261/131

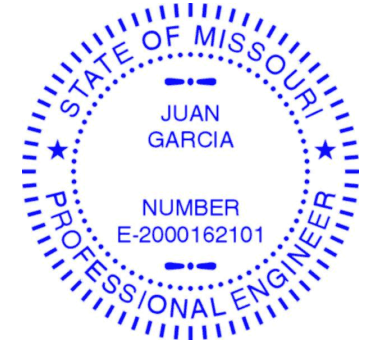
- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been 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=191.
  - 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 38 lb up at 2-6-8, 77 lb down and 29 lb up at 3-4-9, and 89 lb down and 71 lb up at 5-1-4, and 101 lb down and 78 lb up at 6-6-15 on top chord, and 4 lb down at 2-6-8, 10 lb down and 8 lb up at 3-4-9, and 20 lb down at 5-1-4, and 39 lb down at 6-6-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)  
 Vert: 1-2=-70, 2-3=-70, 4-5=-20

Concentrated Loads (lb)  
 Vert: 8=-23(F) 9=-52(B) 11=8(B) 12=-10(F) 13=-24(B)



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686612
RR118	J35	Jack-Open	10	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:24 2021 Page 1

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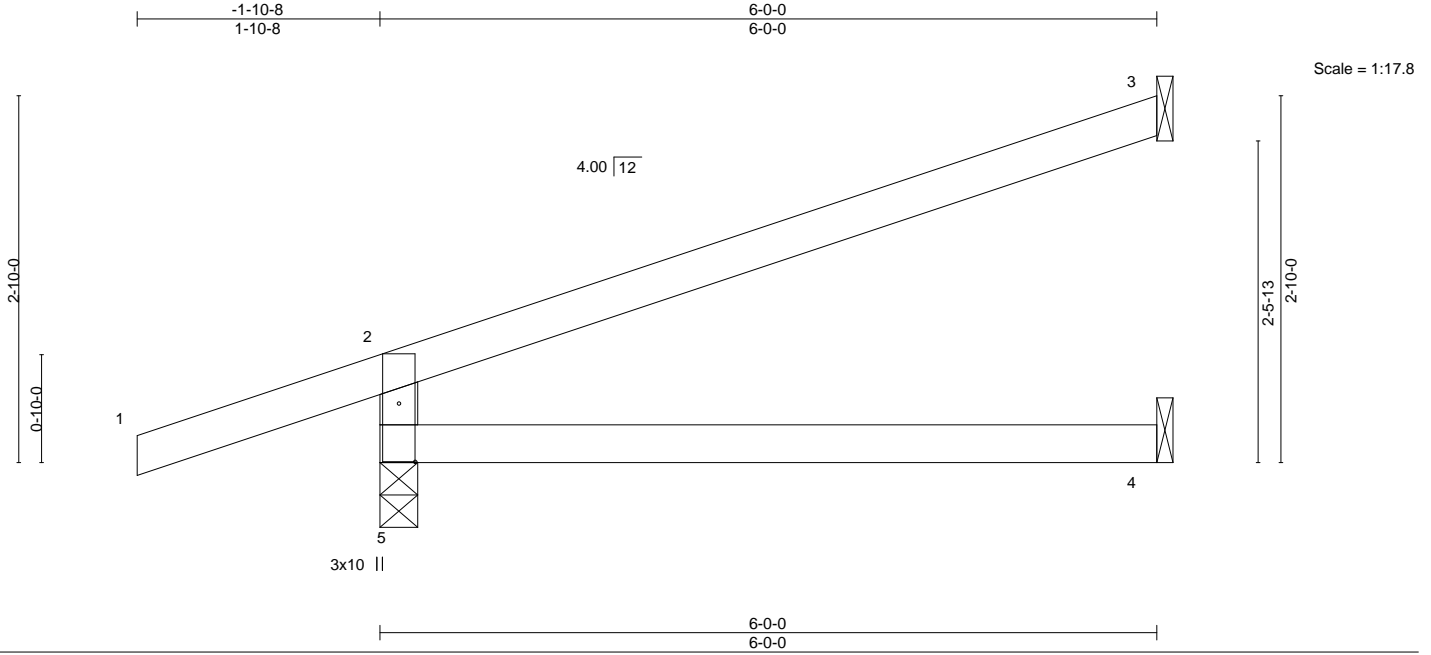


Plate Offsets (X,Y)--	[5:0-5-6,0-1-8]
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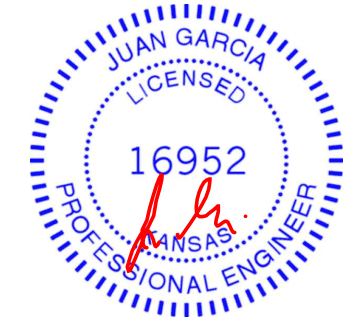
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.11	4-5	>632	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.04	4-5	>999	240	Weight: 17 lb	FT = 10%

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

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=106(LC 4)  
 Max Uplift 5=-127(LC 4), 3=-82(LC 8)  
 Max Grav 5=427(LC 1), 3=173(LC 1), 4=107(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-374/174

- 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=127.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

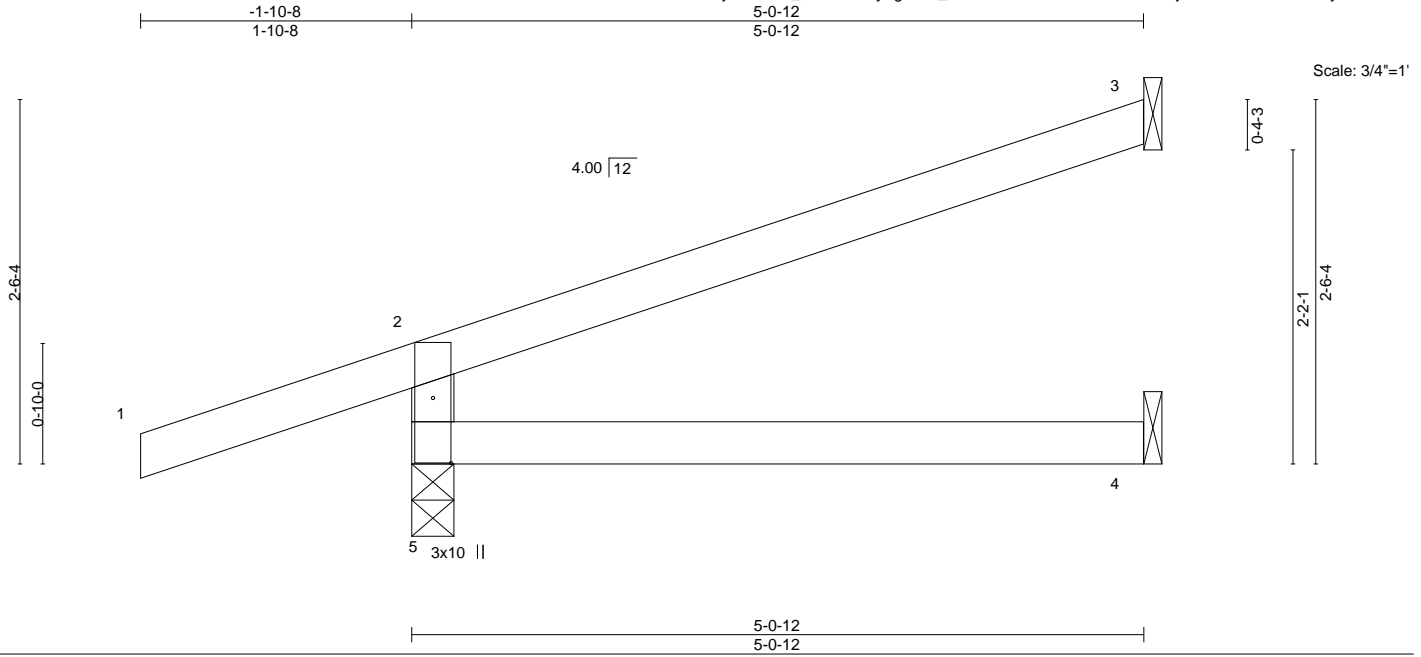


November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686613
RR118	J36	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:25 2021 Page 1  
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LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.03	4-5	>999	360	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.05	4-5	>999	240	Weight: 15 lb FT = 10%		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	3	n/a	n/a			
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.02	4-5	>999	240			

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 5-0-12 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=93(LC 4)  
 Max Uplift 5=-124(LC 4), 3=-68(LC 8)  
 Max Grav 5=389(LC 1), 3=140(LC 1), 4=89(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-341/162

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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=124.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686614
RR118	J37	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:26 2021 Page 1

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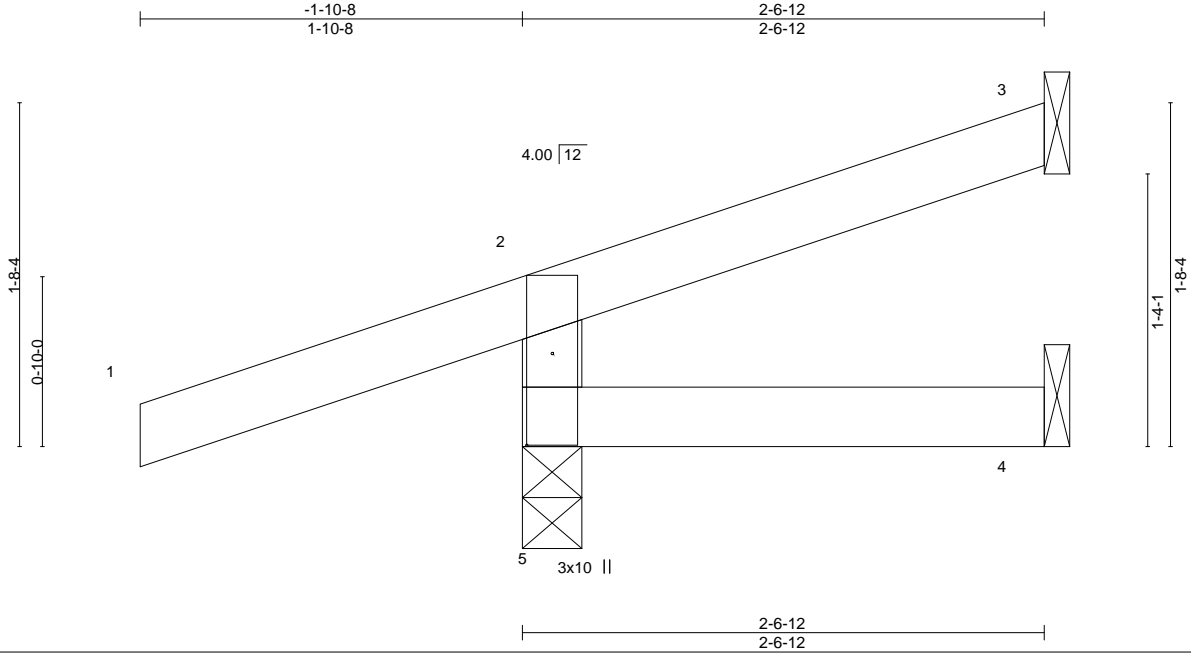


Plate Offsets (X,Y)-- [5:0-5-6,0-1-8] 2-6-12 2-6-12

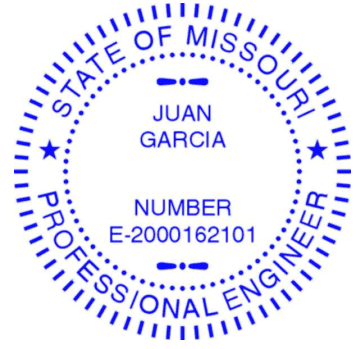
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.00	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	4-5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R	Wind(LL)	-0.00	4-5	>999	Weight: 9 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-6-12 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=59(LC 4)  
 Max Uplift 5=-126(LC 4), 3=-26(LC 8)  
 Max Grav 5=308(LC 1), 3=39(LC 1), 4=38(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-267/137

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



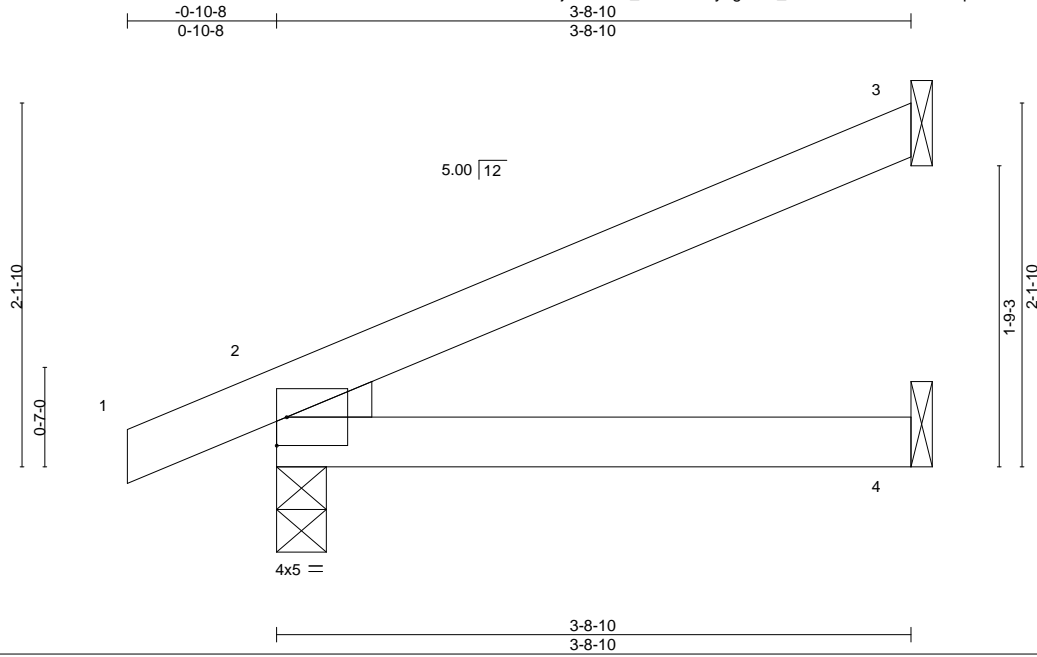
November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686615
RR118	J38	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:26 2021 Page 1

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Scale = 1:13.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.19	Vert(LL)	-0.01	2-4	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.12	Vert(CT)	-0.02	2-4	>999	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Wind(LL)	0.00	2	****	240		
	Code IRC2018/TPI2014							Weight: 10 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-8-10 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

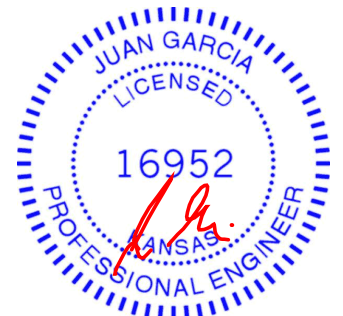
**REACTIONS.**

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
 Max Horz 2=77(LC 8)  
 Max Uplift 3=-66(LC 8), 2=-37(LC 8)  
 Max Grav 3=113(LC 1), 2=240(LC 1), 4=70(LC 3)

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

**NOTES-**

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



November 8, 2021

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

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

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

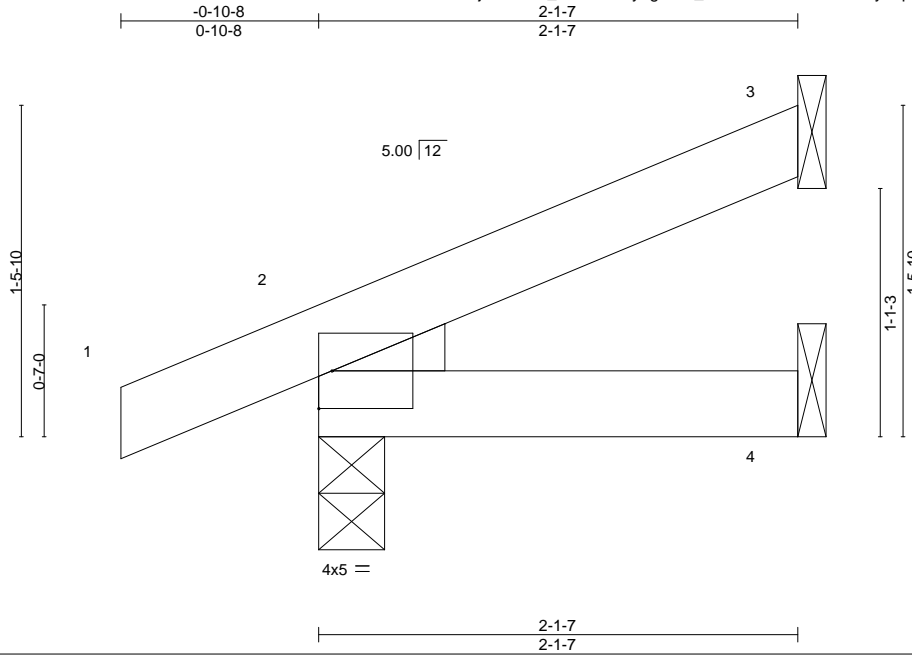


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686616
RR118	J39	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:27 2021 Page 1

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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	2-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 7 lb	FT = 10%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEDGE  
Left: 2x3 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-1-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=49(LC 8)  
Max Uplift 3=-35(LC 8), 2=-35(LC 4)  
Max Grav 3=48(LC 1), 2=177(LC 1), 4=38(LC 3)

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

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



November 8, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686617
RR118	J40	Jack-Closed Girder	2	1		

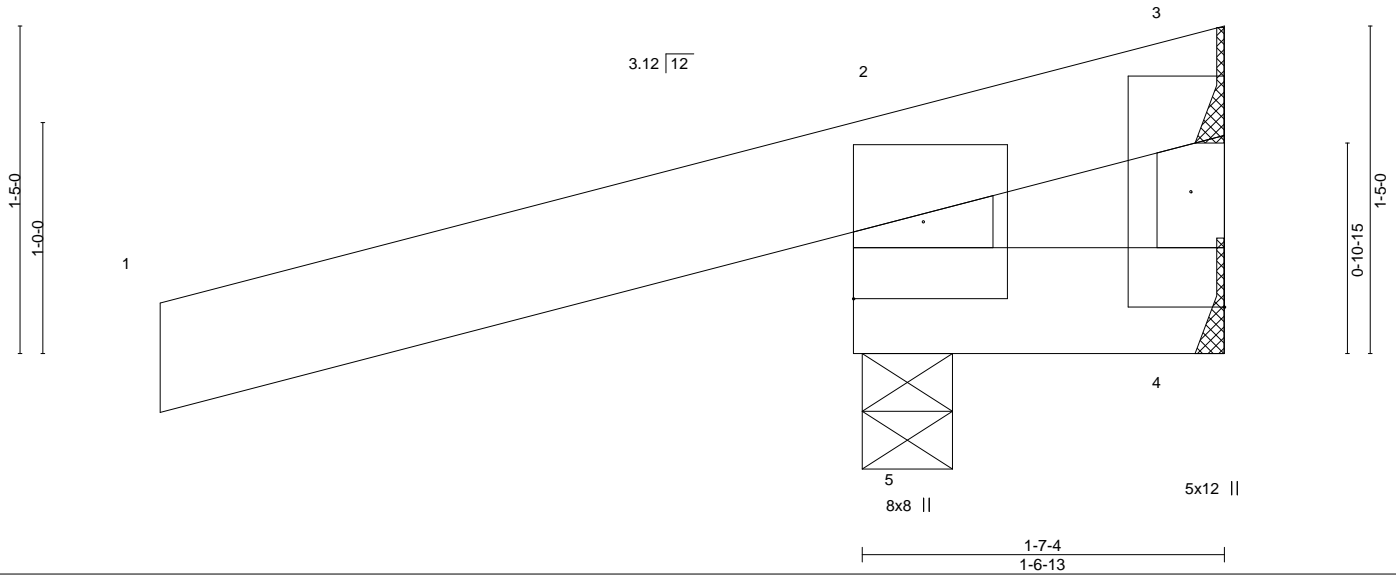
Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:28 2021 Page 1  
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Scale = 1:10.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.86	Vert(LL) 0.00	5	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.18	Vert(CT) 0.00	5	>999	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.00	Horz(CT) -0.00	3	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) -0.00	5	>999	240		Weight: 14 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x6 SPF 1650F 1.4E  
BOT CHORD 2x6 SP DSS  
WEBS 2x8 SP DSS \*Except\*  
3-4: 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

(size) 5=0-4-11, 4=Mechanical, 3=Mechanical  
Max Horz 5=66(LC 7)  
Max Uplift 5=-345(LC 4), 4=-480(LC 21), 3=-511(LC 21)  
Max Grav 5=1576(LC 21), 4=96(LC 4), 3=89(LC 4)

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

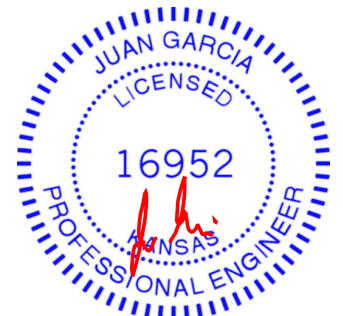
TOP CHORD 2-5=-1073/263  
BOT CHORD 4-5=-381/80

**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=345, 4=480, 3=511.
- 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) Load case(s) 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 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 Except:

- 21) User defined: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)  
Concentrated Loads (lb)  
Vert: 1=-250



November 8, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686618
RR118	J41	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:29 2021 Page 1

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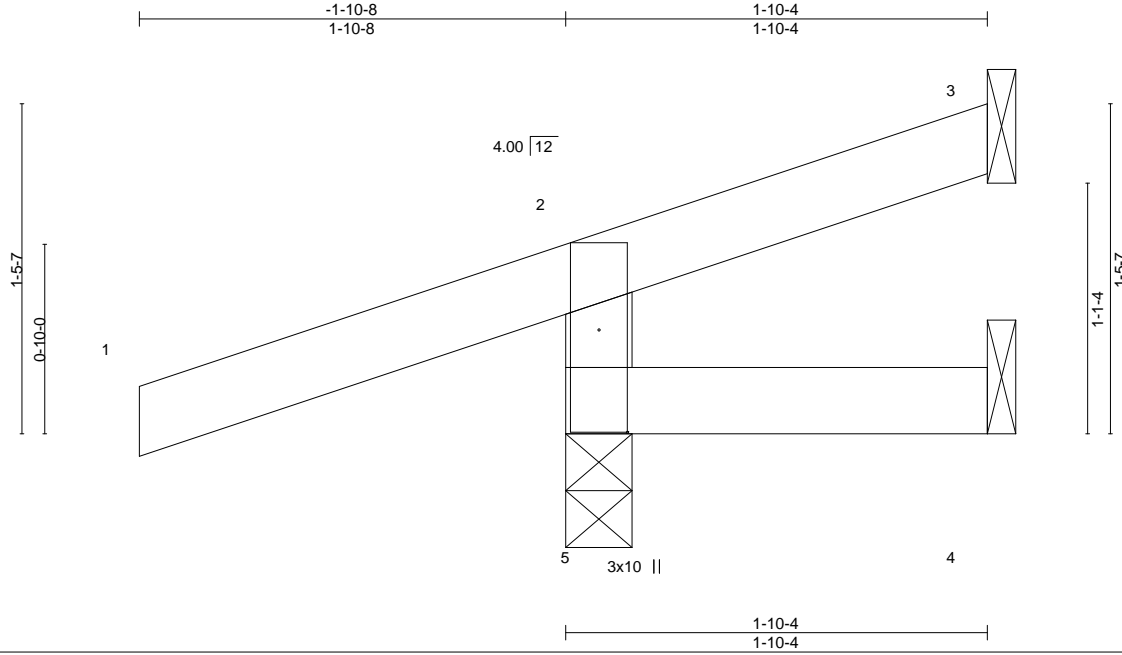


Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]

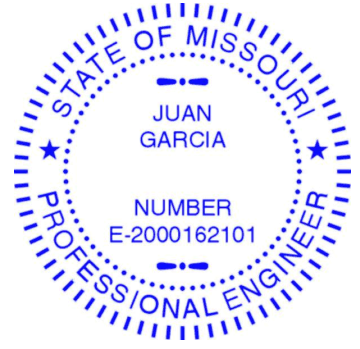
LOADING (psf)	SPACING-	CSL.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) 0.00	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.08	Vert(CT) 0.00	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) -0.00	-0.00	5	>999	240		
								Weight: 7 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 1-10-4 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=50(LC 4)  
 Max Uplift 5=-135(LC 4), 3=-11(LC 8), 4=-8(LC 1)  
 Max Grav 5=302(LC 1), 3=4(LC 4), 4=24(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-260/138

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Refer to girder(s) for truss to truss connections.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=135.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686619
RR118	J42	JACK-CLOSED GIRDER	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:30 2021 Page 1

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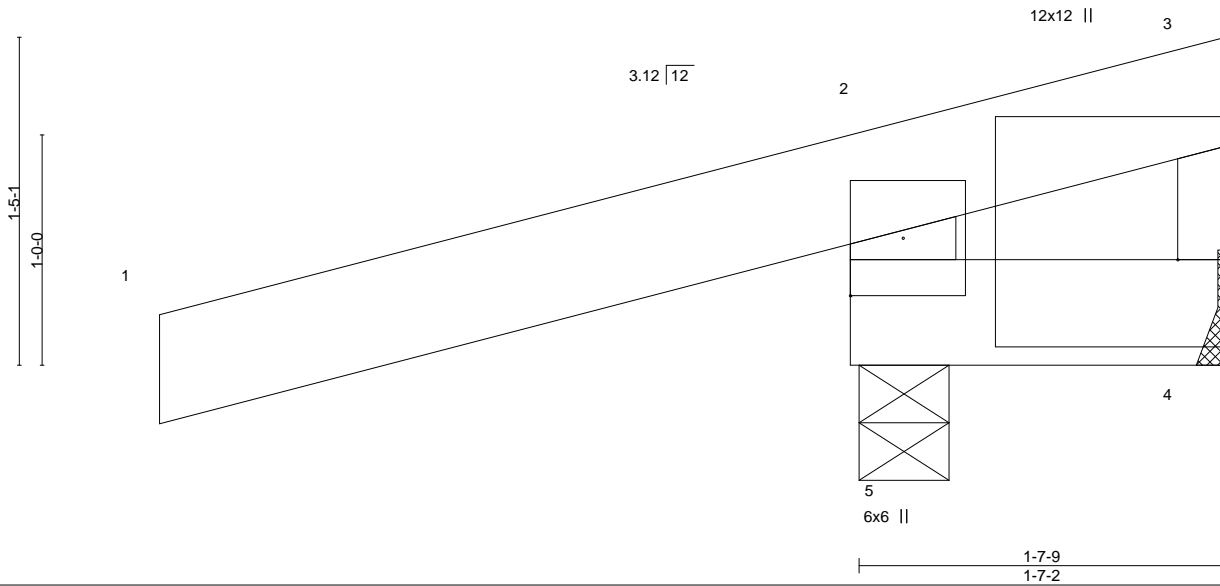


Plate Offsets (X,Y)-- [3:Edge,0-2-8]

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 0.83	Vert(LL)	0.00	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	0.00	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)	-0.00	5	>999	240	Weight: 12 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x6 SPF 1650F 1.4E  
 BOT CHORD 2x6 SPF No.2  
 WEBS 2x6 SPF No.2 \*Except\*  
 3-4: 2x3 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 1-7-9 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-4-11, 4=Mechanical  
 Max Horz 5=66(LC 7)  
 Max Uplift 5=-314(LC 4), 4=-846(LC 21)  
 Max Grav 5=1438(LC 21), 4=155(LC 4)

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

TOP CHORD 2-5=-1210/287, 3-4=-112/643

**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=314, 4=846.
- 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) Load case(s) 21 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- 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 Except:

- 21) User defined: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)  
 Concentrated Loads (lb)  
 Vert: 1=-250



November 8, 2021

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

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

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

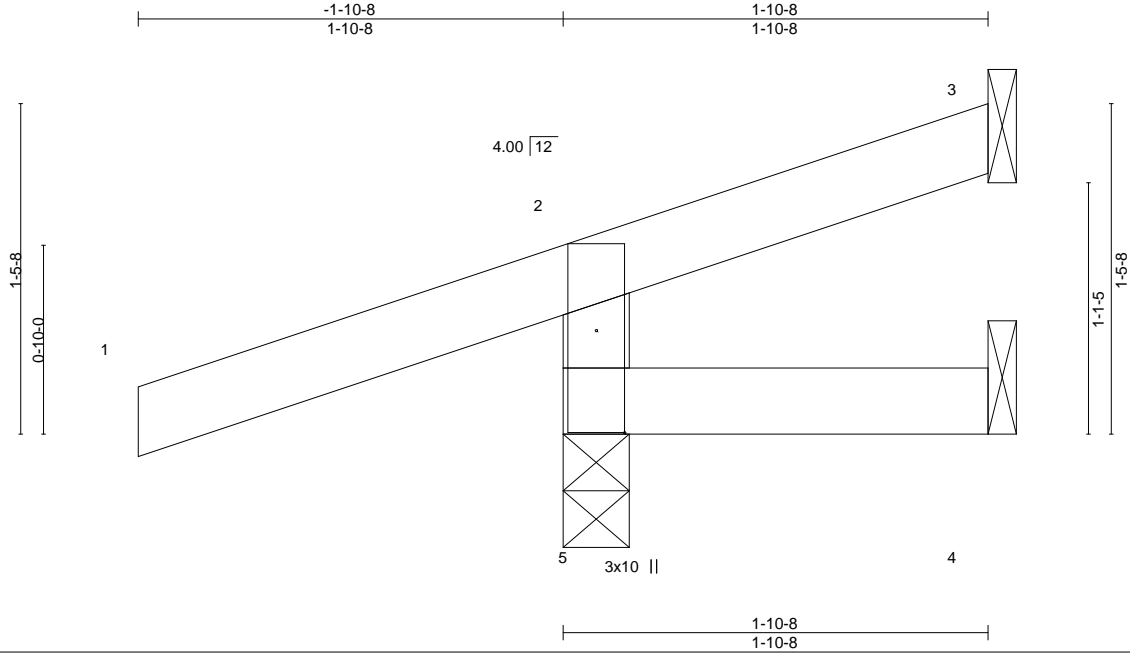


16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686620
RR118	J43	Jack-Open	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:31 2021 Page 1  
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Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	2-0-0	TC 0.28	Vert(LL) 0.00	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15		BC 0.08	Vert(CT) 0.00	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.00	Horz(CT) -0.00	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL) -0.00	-0.00	5	>999	240	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 1-10-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

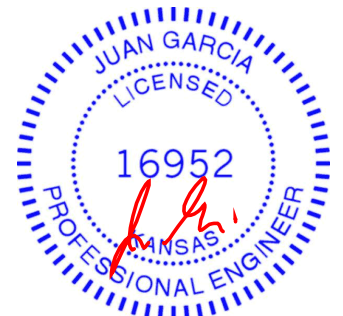
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=50(LC 4)  
 Max Uplift 5=-135(LC 4), 3=-12(LC 8), 4=-8(LC 1)  
 Max Grav 5=302(LC 1), 3=4(LC 19), 4=25(LC 3)

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

TOP CHORD 2-5=-260/138

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=135.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 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 118 RR	I48686621
RR118	J44	Diagonal Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:32 2021 Page 1  
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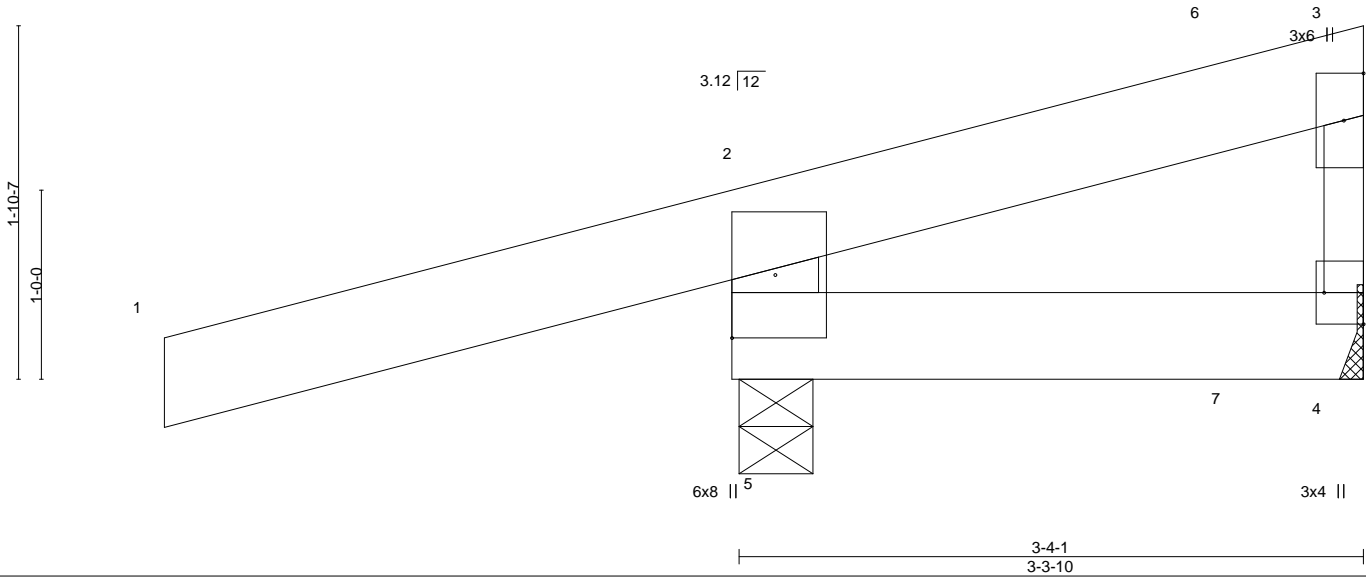


Plate Offsets (X,Y)-- [4:Edge,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.83	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	0.01	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)	-0.00	4-5	>999	240	Weight: 19 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x6 SPF 1650F 1.4E  
 BOT CHORD 2x6 SPF No.2  
 WEBS 2x6 SPF No.2 \*Except\*  
 3-4: 2x3 SPF No.2

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-4-1 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

(size) 5=0-4-11, 4=Mechanical  
 Max Horz 5=85(LC 7)  
 Max Uplift 5=-231(LC 4), 4=-261(LC 37)  
 Max Grav 5=1000(LC 37), 4=100(LC 21)

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

TOP CHORD 2-5=-857/233

**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) except (jt=lb) 5=231, 4=261.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Load case(s) 37 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 55 lb down and 28 lb up at 2-8-7 on top chord, and 14 lb down and 8 lb up at 2-8-7 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 Except:

- 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=8(F)



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Continued on page 2

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

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**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 118 RR	I48686621
RR118	J44	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:32 2021 Page 2  
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**LOAD CASE(S)**

37) User defined: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-2=-70(F), 2-3=-70(F), 4-5=-20(F)

Concentrated Loads (lb)

Vert: 1=-250 7=8(F)

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

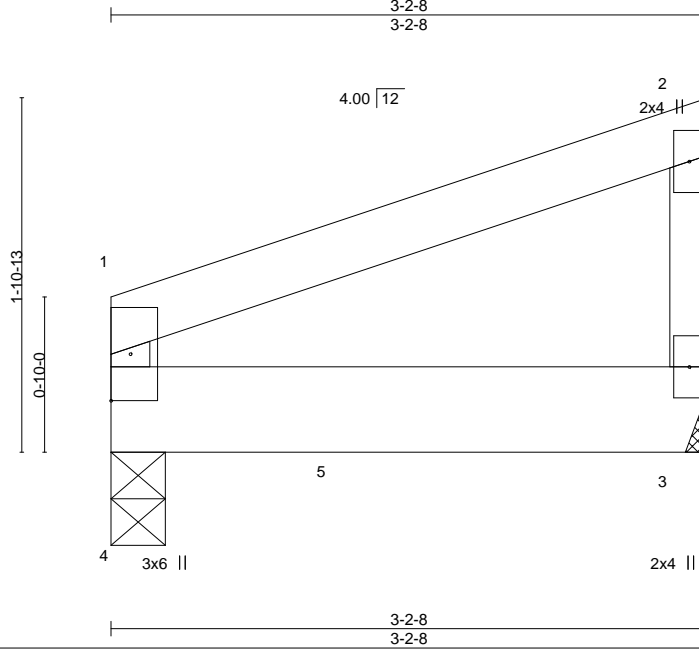


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686622
RR118	J45	Jack-Closed Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:33 2021 Page 1

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Scale = 1:12.4

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	-0.01	3-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.01	3-4	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	3-4	>999	240	Weight: 11 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 4=0-3-8, 3=Mechanical  
 Max Horz 4=63(LC 5)  
 Max Uplift 4=-31(LC 4), 3=-37(LC 8)  
 Max Grav 4=347(LC 1), 3=270(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, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 347 lb down and 25 lb up at 1-3-4 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, 3-4=-20  
 Concentrated Loads (lb)  
 Vert: 5=-347(F)



November 8, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686623
RR118	J46	Jack-Open	5	1		

Wheeler Lumber, Waverly, KS - 66871,

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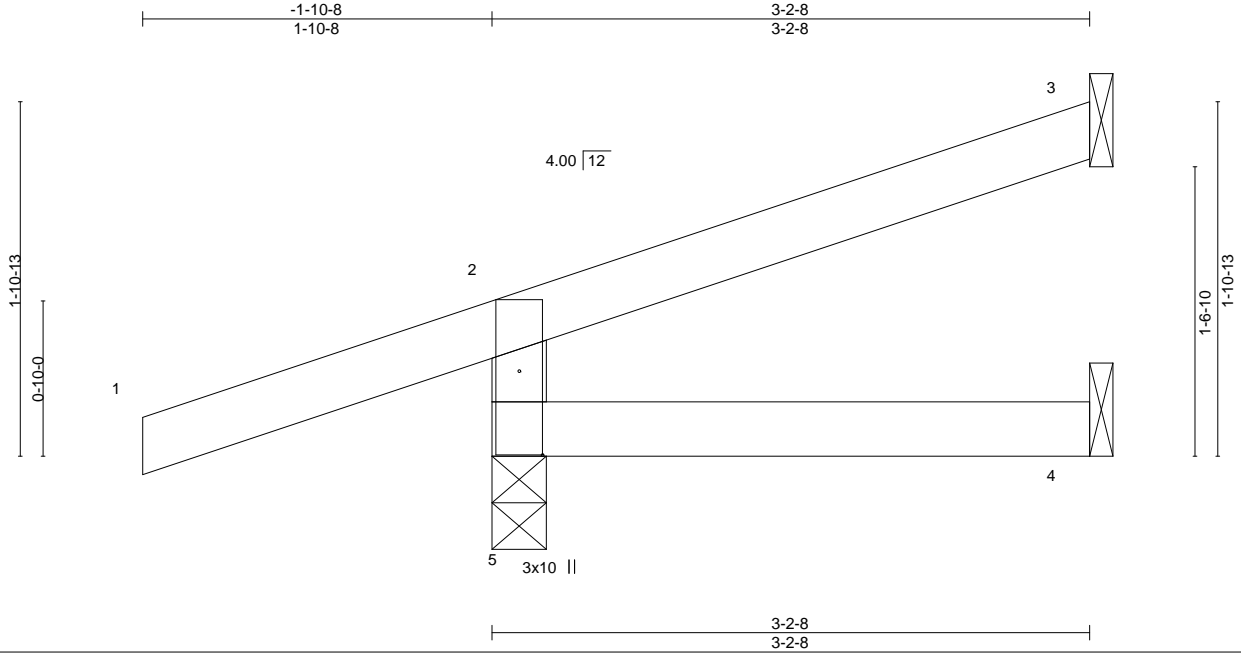


Plate Offsets (X,Y)-- [5:0-5-6,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.00	4-5	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.06	Vert(CT) -0.01	4-5	>999	240			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00	3	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R	Wind(LL) -0.00	4-5	>999	240		Weight: 10 lb	FT = 10%

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

**REACTIONS.** (size) 5=0-3-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=49(LC 4)  
 Max Uplift 5=-76(LC 4), 3=-23(LC 8)  
 Max Grav 5=324(LC 1), 3=69(LC 1), 4=52(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-5=-283/94

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



November 8, 2021

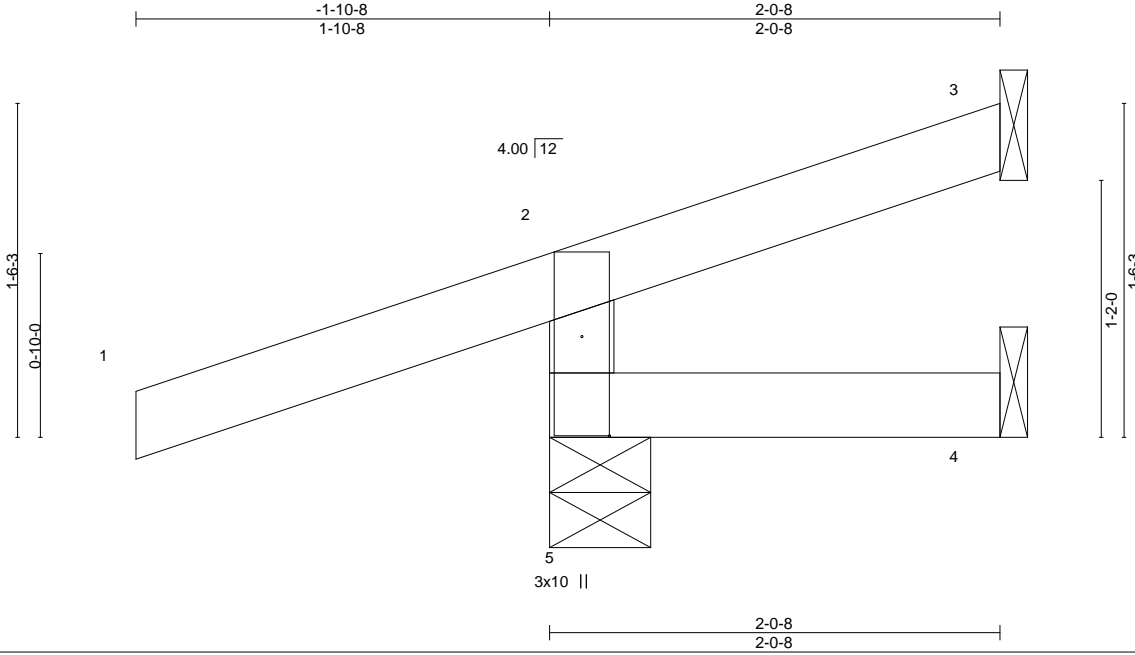


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686625
RR118	J48	Jack-Open	4	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:35 2021 Page 1

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Scale = 1:10.4

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 0.28	Vert(LL)	0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	-0.00	5	>999	240	Weight: 8 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=0-5-8, 3=Mechanical, 4=Mechanical  
 Max Horz 5=52(LC 4)  
 Max Uplift 5=-133(LC 4), 3=-15(LC 8), 4=-5(LC 1)  
 Max Grav 5=302(LC 1), 3=10(LC 1), 4=27(LC 3)

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

TOP CHORD 2-5=-260/137

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 5=133.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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

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

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



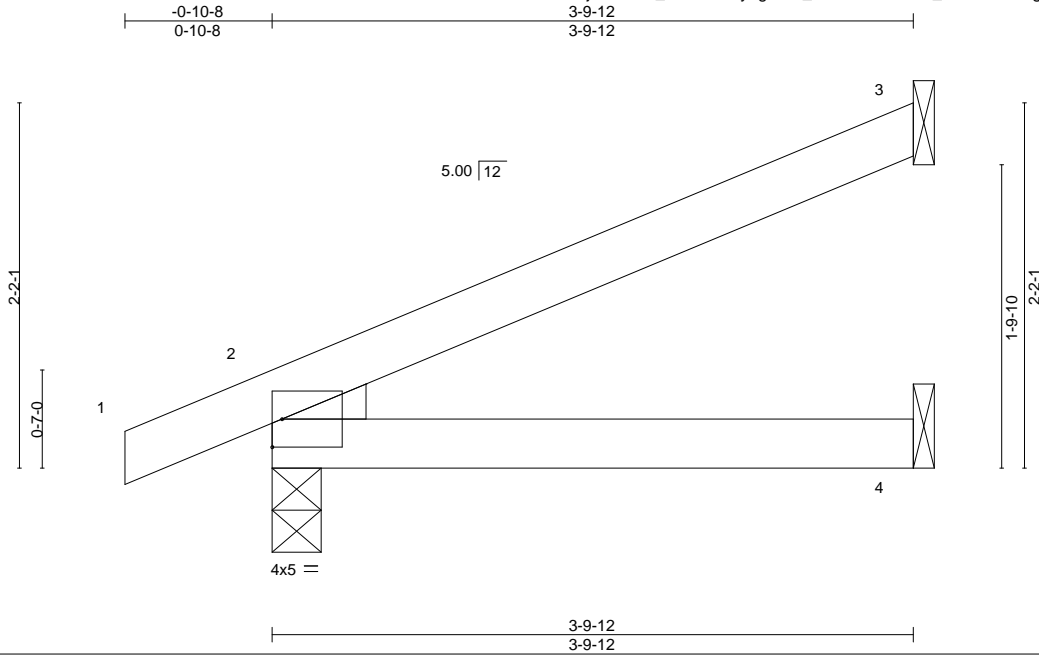
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686626
RR118	J49	Jack-Open	7	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:36 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-9cNfXcVBW\_f0ULaZJ6xngTIgxBQqe2ZI55CYLuyMHRX  
3-9-12 3-9-12



Scale = 1:13.7

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

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

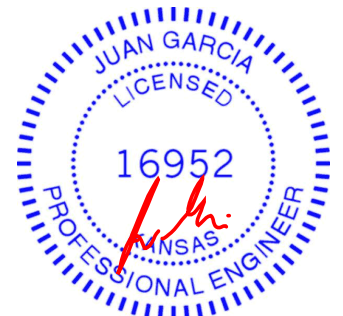
**REACTIONS.**

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=78(LC 8)  
Max Uplift 3=-68(LC 8), 2=-38(LC 8)  
Max Grav 3=116(LC 1), 2=244(LC 1), 4=72(LC 3)

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

**NOTES-**

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



November 8, 2021

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



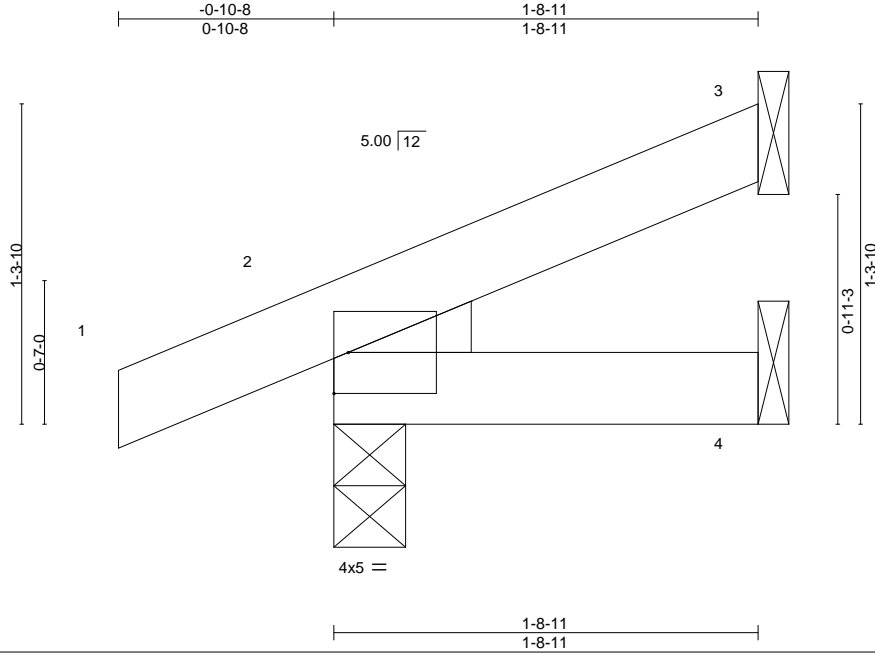
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686627
RR118	J50	Jack-Open	4	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:37 2021 Page 1  
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Scale = 1:9.4

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	2	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	2	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.00	2	****	240	Weight: 6 lb	FT = 10%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEDGE  
 Left: 2x3 SPF No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 1-8-11 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=43(LC 8)  
 Max Uplift 3=-31(LC 8), 2=-32(LC 4)  
 Max Grav 3=42(LC 1), 2=156(LC 1), 4=34(LC 3)

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

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



November 8, 2021

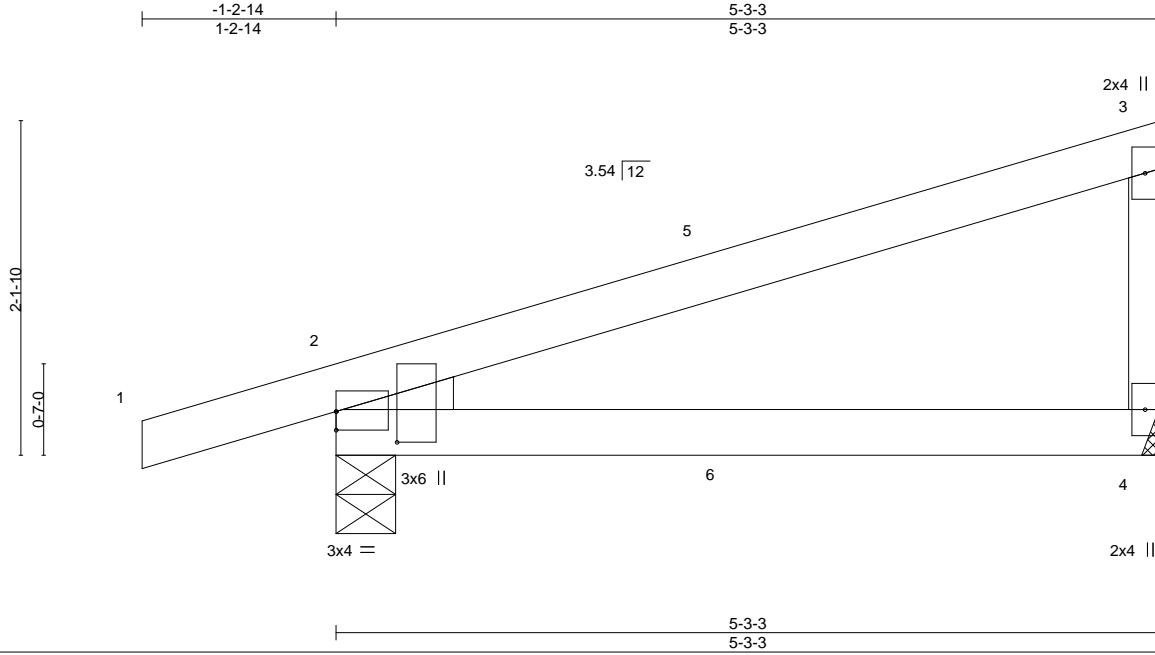


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686628
RR118	J51	Diagonal Hip Girder	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:38 2021 Page 1

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Scale = 1:14.7

Plate Offsets (X,Y)-- [2:0-0-0,0-1-7], [2:0-2-6,0-4-11]

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 0.46	Vert(LL)	-0.04	2-4	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.07	2-4	>814	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-P	Wind(LL)	0.00	2	****	240	Weight: 16 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-3 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=81(LC 5)  
 Max Uplift 4=44(LC 8), 2=-105(LC 4)  
 Max Grav 4=209(LC 1), 2=338(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=105.
- 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) 68 lb down and 34 lb up at 2-6-5, and 68 lb down and 34 lb up at 2-6-5 on top chord, and at 2-6-5, and at 2-6-5 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



November 8, 2021

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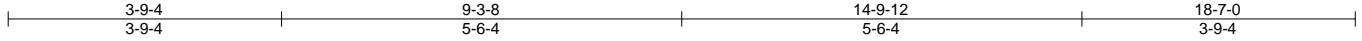
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686629
RR118	K1	Hip Girder	1	1		

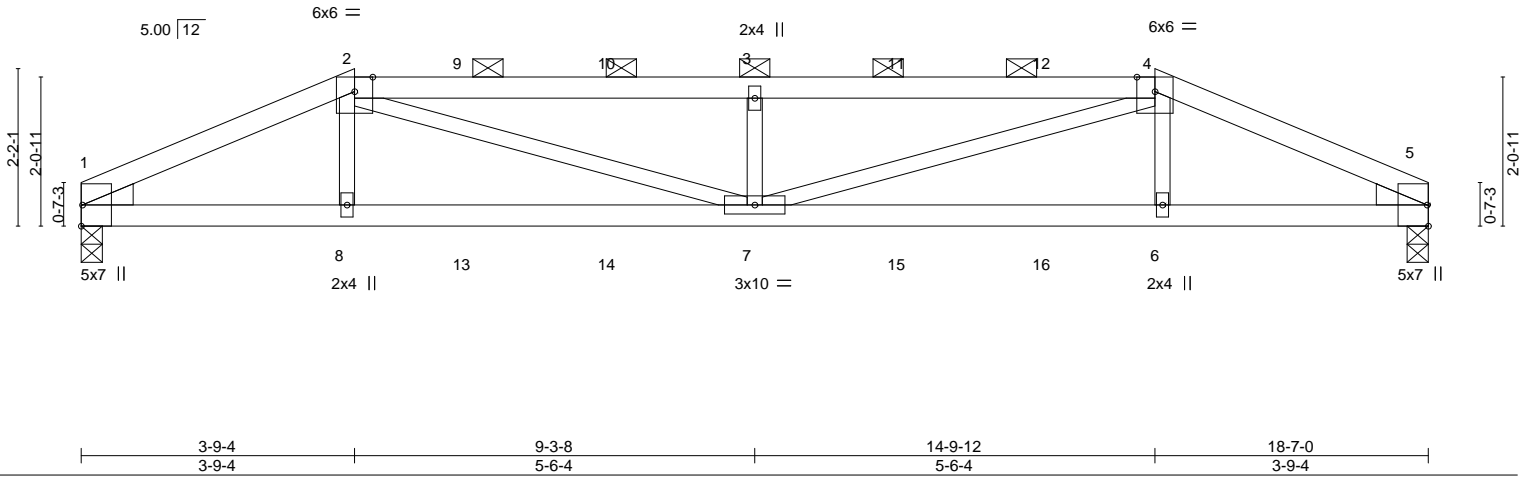
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:46 2021 Page 1

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Scale: 3/8"=1'



LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 2-0-0	TC 0.77	Vert(LL) -0.16	7	>999	360		MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 1.00	Vert(CT) -0.28	7-8	>782	240			
BCLL 0.0 *	Rep Stress Incr NO	WB 0.45	Horz(CT) 0.06	5	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.15	7	>999	240			
								Weight: 58 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-4: 2x4 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied or 3-6-13 oc purlins, except
BOT CHORD 2x4 SPF No.2	BOT CHORD 2-0-0 oc purlins (3-9-11 max.): 2-4.
WEBS 2x3 SPF No.2	WEBS Rigid ceiling directly applied or 8-1-7 oc bracing.
WEDGE	
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2	

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-32(LC 30)  
 Max Uplift 1=-280(LC 4), 5=-280(LC 5)  
 Max Grav 1=1221(LC 1), 5=1221(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-2483/612, 2-3=-3366/894, 3-4=-3366/894, 4-5=-2483/612  
 BOT CHORD 1-8=-520/2187, 7-8=-521/2168, 6-7=-517/2168, 5-6=-516/2187  
 WEBS 2-8=0/361, 2-7=-348/1315, 3-7=-637/322, 4-7=-348/1315, 4-6=0/361

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) 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) 1=280, 5=280.
  - 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) 77 lb down and 76 lb up at 3-9-4, 82 lb down and 76 lb up at 5-3-8, 82 lb down and 76 lb up at 7-3-8, 82 lb down and 76 lb up at 9-3-8, 82 lb down and 76 lb up at 11-3-8, and 82 lb down and 76 lb up at 13-3-8, and 77 lb down and 76 lb up at 14-9-12 on top chord, and 197 lb down and 71 lb up at 3-9-4, 32 lb down at 5-3-8, 32 lb down at 7-3-8, 32 lb down at 9-3-8, 32 lb down at 11-3-8, and 32 lb down at 13-3-8, and 197 lb down and 71 lb up at 14-9-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard



November 8, 2021

Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686629
RR118	K1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:46 2021 Page 2  
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**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 4-5=-70, 1-5=-20

Concentrated Loads (lb)

Vert: 2=-46(F) 4=-46(F) 8=-197(F) 7=-16(F) 3=-46(F) 6=-197(F) 9=-46(F) 10=-46(F) 11=-46(F) 12=-46(F) 13=-16(F) 14=-16(F) 15=-16(F) 16=-16(F)

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



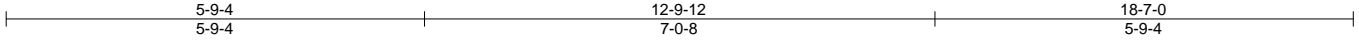
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686630
RR118	K2	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:47 2021 Page 1

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Scale: 3/8"=1'

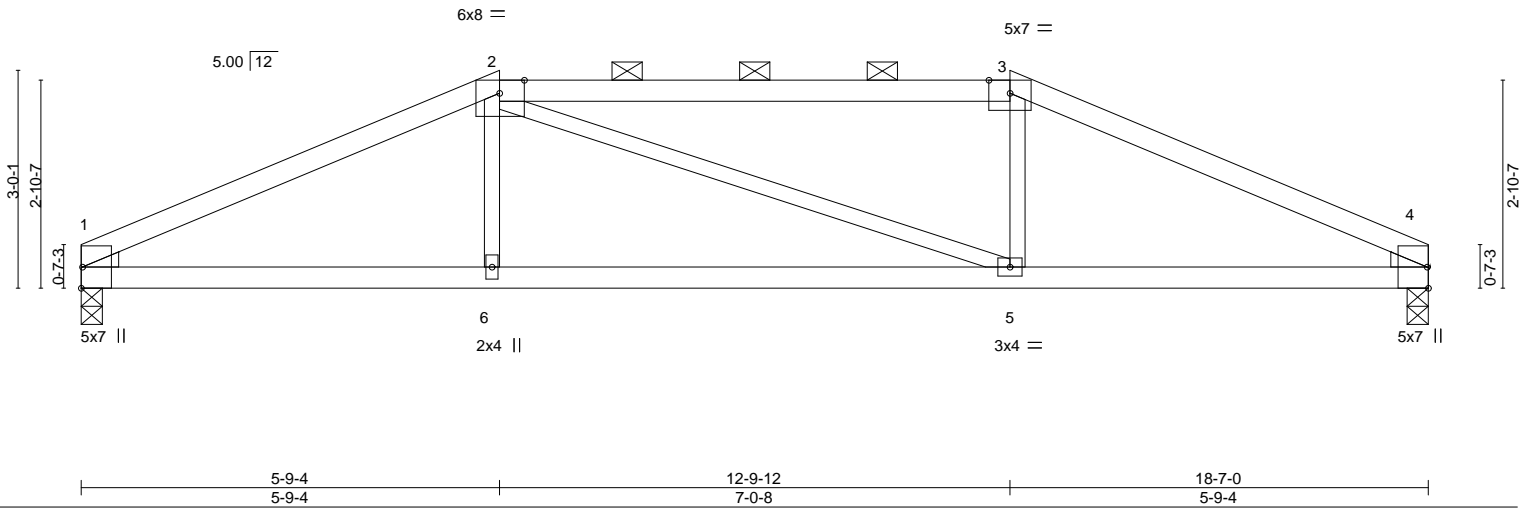


Plate Offsets (X,Y)-- [2:0-4-2,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.98	Vert(LL) -0.07	5-6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.46	Vert(CT) -0.16	5-6	>999	240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.22	Horz(CT) 0.04	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.04	6	>999	240	Weight: 55 lb	FT = 10%

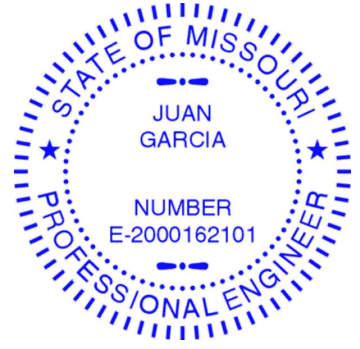
**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x3 SPF No.2  
 WEDGE  
 Left: 2x3 SPF No.2 , Right: 2x3 SPF No.2

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

**REACTIONS.** (size) 1=0-3-8, 4=0-3-8  
 Max Horz 1=-47(LC 13)  
 Max Uplift 1=-87(LC 4), 4=-87(LC 5)  
 Max Grav 1=823(LC 1), 4=823(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1522/186, 2-3=-1304/200, 3-4=-1522/186  
 BOT CHORD 1-6=-126/1310, 5-6=-129/1304, 4-5=-119/1310  
 WEBS 2-6=0/283, 3-5=0/284

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



November 8, 2021

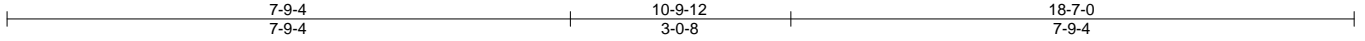
Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686631
RR118	K3	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:48 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-ow6C2jehgAJwBUsoD8b9?FdG0P7SS0Tsz6AmCyMHRl

Job Reference (optional)



Scale: 3/8"=1'

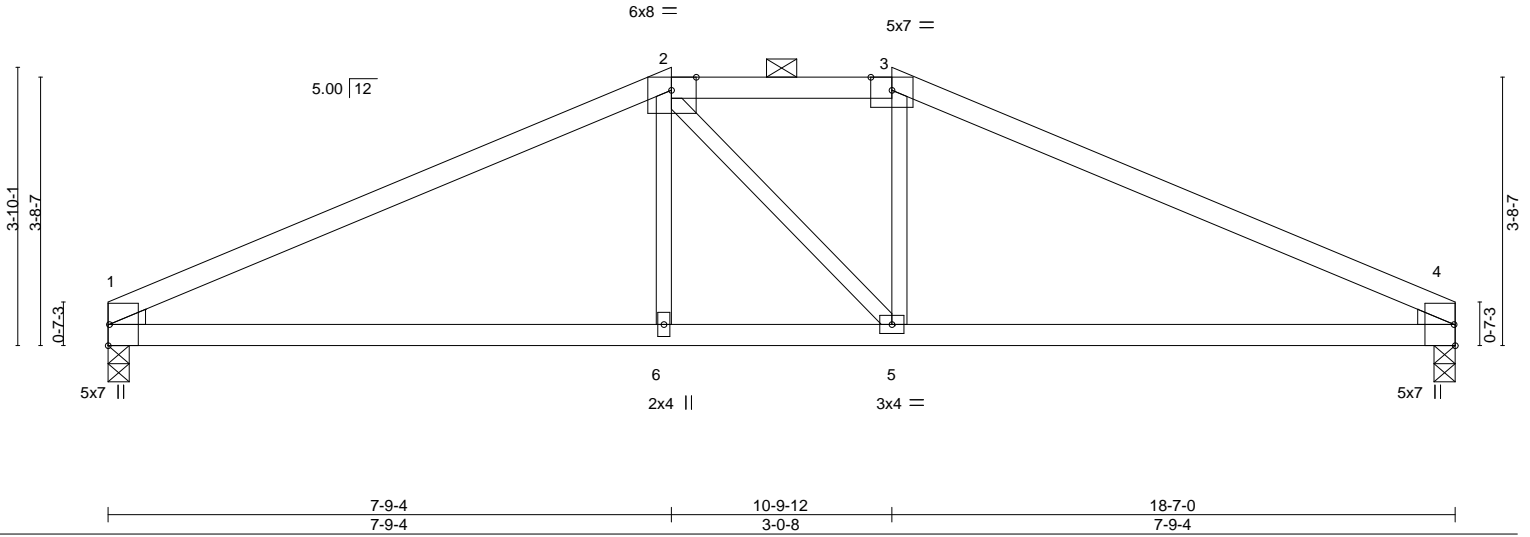


Plate Offsets (X,Y)-- [2:0-4-2,Edge]

LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.69	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.11 1-6 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.10	Vert(CT) -0.25 1-6 >881 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 4 n/a n/a	Weight: 54 lb	FT = 10%
	Code IRC2018/TPI2014		Wind(LL) 0.06 1-6 >999 240		

**LUMBER-**

TOP CHORD 2x4 SPF 2100F 1.8E \*Except\*  
 2-3: 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x3 SPF No.2  
 WEDGE  
 Left: 2x3 SPF No.2, Right: 2x3 SPF No.2

**BRACING-**

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

**REACTIONS.**

(size) 1=0-3-8, 4=0-3-8  
 Max Horz 1=61(LC 8)  
 Max Uplift 1=-93(LC 8), 4=-93(LC 9)  
 Max Grav 1=823(LC 1), 4=823(LC 1)

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

TOP CHORD 1-2=-1334/124, 2-3=-1134/153, 3-4=-1334/123  
 BOT CHORD 1-6=-70/1138, 5-6=-71/1134, 4-5=-45/1138

**NOTES-**

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



November 8, 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



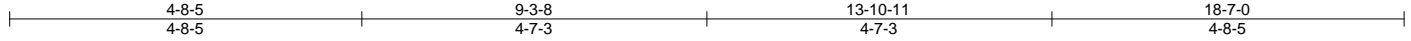
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686632
RR118	K4	Common	2	1		

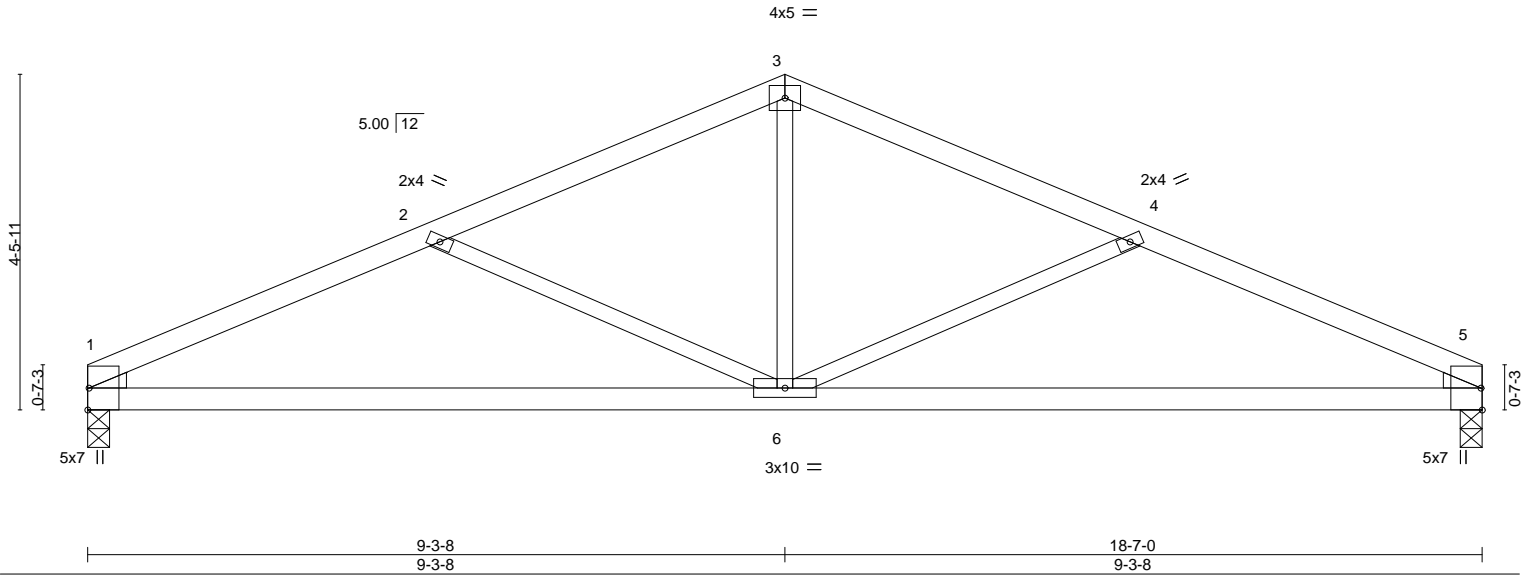
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:49 2021 Page 1

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Scale = 1:30.7



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	2-0-0	TC 0.34	Vert(LL) -0.16	-0.16	1-6	>999	360	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.80	Vert(CT) -0.33	-0.33	1-6	>664	240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.25	Horz(CT) 0.04	0.04	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Wind(LL) 0.04	0.04	1-6	>999	240		
	Code IRC2018/TPI2014							Weight: 57 lb	FT = 10%

**LUMBER-**

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

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-6-7 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=73(LC 8)  
 Max Uplift 1=-105(LC 8), 5=-105(LC 9)  
 Max Grav 1=823(LC 1), 5=823(LC 1)

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

TOP CHORD 1-2=-1462/228, 2-3=-1116/124, 3-4=-1116/124, 4-5=-1462/228  
 BOT CHORD 1-6=-226/1275, 5-6=-153/1275  
 WEBS 3-6=0/501, 4-6=-377/215, 2-6=-377/215

**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) 1=105, 5=105.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 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



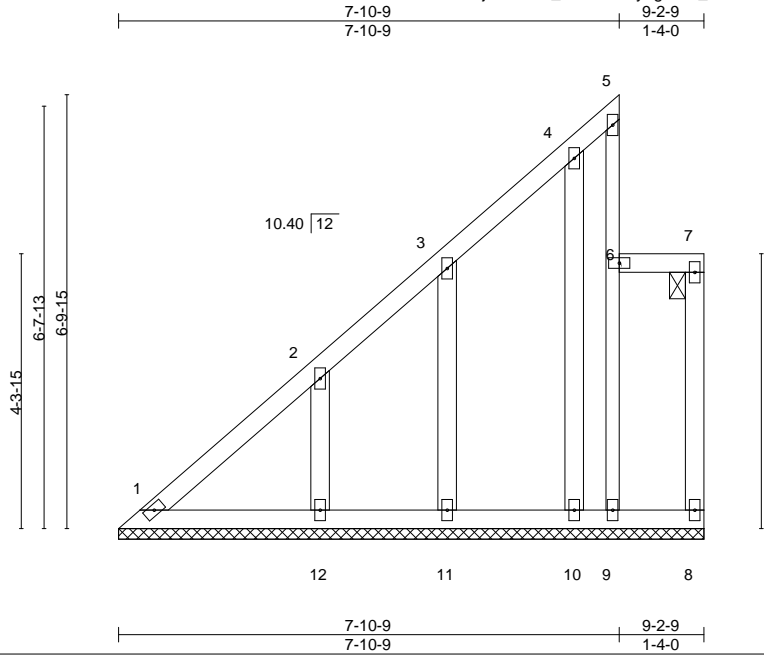
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686633
RR118	LAY1	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:51 2021 Page 1  
 ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-DVnKglhc\_bYtneDRhliIndtFIEZLfpwYxLqNXyMHRl



Scale = 1:36.3

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 46 lb	FT = 10%

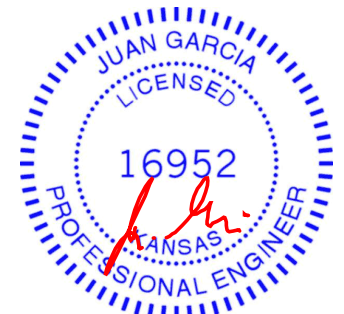
**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2 \*Except\*  
 5-9: 2x3 SPF No.2  
 OTHERS 2x4 SPF No.2

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-9, 6-7.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 8-9.

**REACTIONS.** All bearings 9-2-9.  
 (lb) - Max Horz 1=277(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 8, 11, 10 except 12=-135(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 8, 11, 10 except 12=277(LC 15)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-364/211

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 8, 11, 10 except (jt=lb) 12=135.
  - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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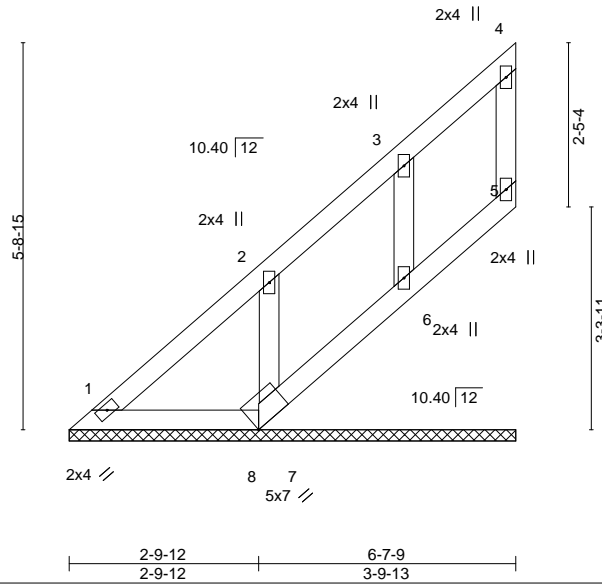
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686634
RR118	LAY2	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:53 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAz\_t70-9tv55RisWDob0yNqpAkms2ycK1Gz7kKD0FqxRPyMHRG  
6-7-9  
6-7-9



Scale = 1:34.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	2-0-0	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P						Weight: 25 lb	FT = 10%
	Code IRC2018/TPI2014								

**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, Except: 6-0-0 oc bracing: 5-6.

**REACTIONS.**

All bearings 6-7-9.  
 (lb) - Max Horz 1=175(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6 except 7=-121(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 8, 6 except 7=271(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) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6 except (jt=lb) 7=121.
- 6) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 5, 7, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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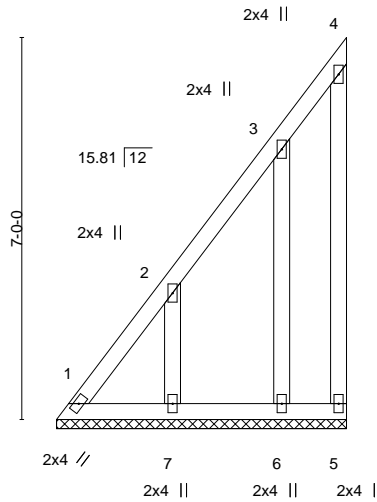
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686635
RR118	LAY3	Lay-In Gable	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:53 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-9tv55RisWDob0yNqAkms2yZE1GP7jmd0FqxRPyMHRg  
5-3-12  
5-3-12



Scale = 1:42.2

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 31 lb	FT = 10%

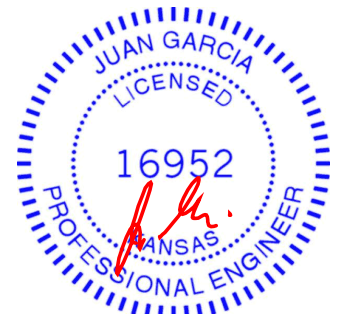
**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-3-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 5-3-12.  
(lb) - Max Horz 1=254(LC 5)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=125(LC 6), 5=115(LC 7), 7=197(LC 8), 6=138(LC 8)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 6

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-301/225

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Gable requires continuous bottom chord bearing.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 125 lb uplift at joint 1, 115 lb uplift at joint 5, 197 lb uplift at joint 7 and 138 lb uplift at joint 6.
  - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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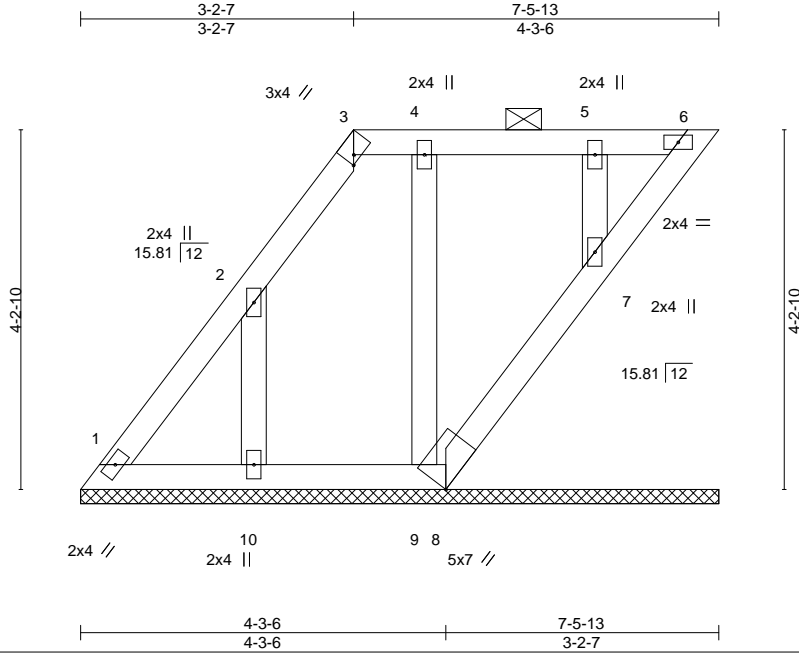
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686636
RR118	LAY4	GABLE	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:55 2021 Page 1

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Scale = 1:27.0

Plate Offsets (X,Y)--	[3:0-1-3,Edge]
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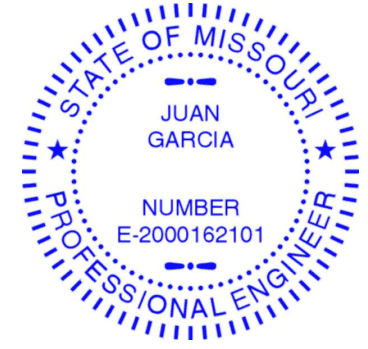
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	6	n/a	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P						Weight: 29 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6'-0-0 oc purlins, except 2'-0-0 oc purlins (6'-0-0 max.); 3-6.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.
OTHERS 2x4 SPF No.2	

**REACTIONS.** All bearings 7-5-13.  
 (lb) - Max Horz 1=160(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 6, 8, 9, 7 except 10=-159(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8, 10, 9, 7

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - Gable requires continuous bottom chord bearing.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 6, 8, 9, 7 except (jt=lb) 10=159.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 6, 7.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

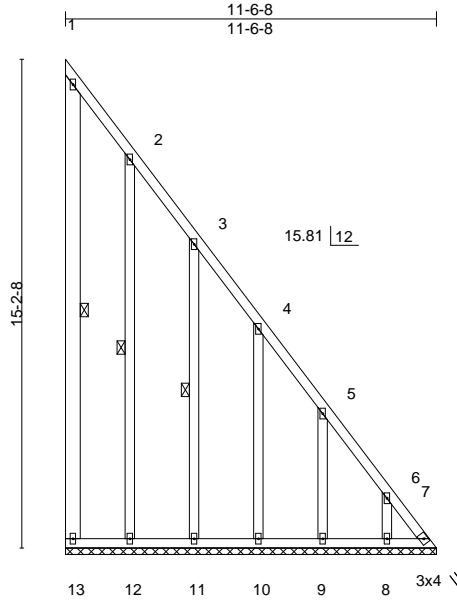


November 8, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686637
RR118	LAY5	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:56 2021 Page 1  
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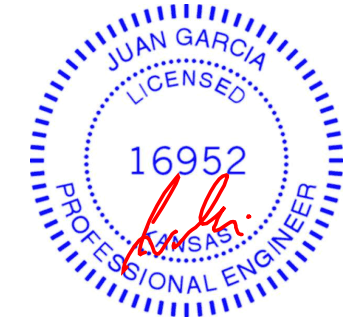
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL) n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT) n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT) 0.01	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				Weight: 99 lb	FT = 10%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x6 SPF No.2	WEBS 1 Row at midpt
OTHERS 2x4 SPF No.2	

**REACTIONS.** All bearings 11-6-8.  
(lb) - Max Horz 13=-592(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 13 except 7=-290(LC 7), 12=-165(LC 9), 11=-180(LC 9), 10=-174(LC 9), 9=-179(LC 9), 8=-158(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 13, 12, 11, 10, 9, 8 except 7=743(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-252/120, 3-4=-433/193, 4-5=-609/266, 5-6=-791/343, 6-7=-940/404  
BOT CHORD 12-13=-247/591, 11-12=-247/591, 10-11=-247/591, 9-10=-247/591, 8-9=-247/591, 7-8=-247/591

- 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 right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) All plates are 2x4 MT20 unless otherwise indicated.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 7=290, 12=165, 11=180, 10=174, 9=179, 8=158.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



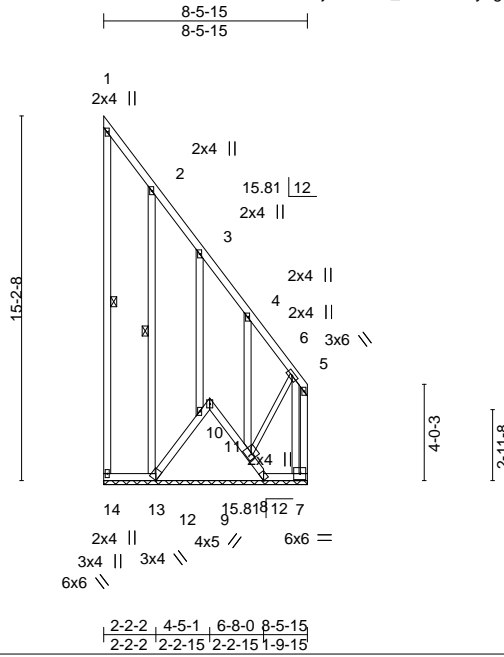
November 8, 2021



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686638
RR118	LAY6	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:57 2021 Page 1  
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Scale: 1/8"=1'

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.26	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 87 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 1-14, 2-13

**REACTIONS.**

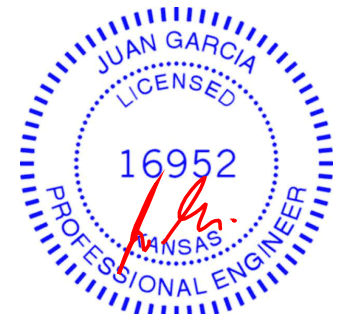
All bearings 8-5-15.  
 (lb) - Max Horz 14=-387(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 14, 8 except 7=-493(LC 7), 12=-548(LC 9), 10=-770(LC 7), 13=-164(LC 9), 11=-169(LC 9), 9=-1288(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 14, 8, 11 except 7=1068(LC 9), 12=373(LC 7), 10=1019(LC 9), 13=262(LC 16), 9=787(LC 7)

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

TOP CHORD 2-3=-261/124, 3-4=-450/202, 4-5=-596/256  
 BOT CHORD 13-14=-293/387, 12-13=-293/387, 11-12=-506/667, 10-11=-501/635, 9-10=-498/643  
 WEBS 5-7=-843/451, 5-9=-431/753

**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 right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 8 except (jt=lb) 7=493, 12=548, 10=770, 13=164, 11=169, 9=1288.
- 6) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 10, 11, 9.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

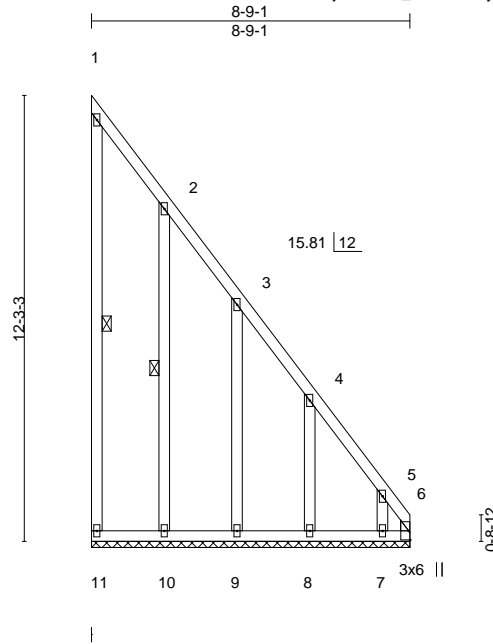


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686639
RR118	LAY7	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:58 2021 Page 1

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Scale = 1:63.4

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 64 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  
 WEDGE  
 Right: 2x4 SPF No.2

**BRACING-**

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

**REACTIONS.**

All bearings 8-9-1.  
 (lb) - Max Horz 11=-477(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 11 except 10=-186(LC 9), 9=-172(LC 9), 6=-337(LC 7), 8=-185(LC 9), 7=-348(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 11, 10, 9, 8, 7 except 6=812(LC 9)

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

TOP CHORD 2-3=-264/126, 3-4=-439/195, 4-5=-626/275, 5-6=-940/406  
 BOT CHORD 10-11=-199/477, 9-10=-199/477, 8-9=-199/477, 7-8=-199/477, 6-7=-199/477  
 WEBS 5-7=-216/368

**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 right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 10=186, 9=172, 6=337, 8=185, 7=348.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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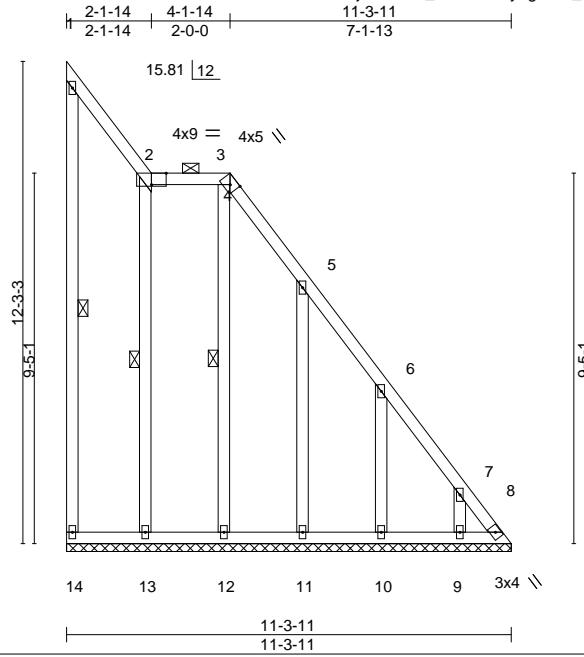
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686640
RR118	LAY8	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:59 2021 Page 1

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Scale = 1:58.6

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S					Weight: 79 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 1-14, 2-13, 3-12

**REACTIONS.**

All bearings 11-3-11.  
 (lb) - Max Horz 14=-477(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 14 except 8=-243(LC 7), 12=-227(LC 9), 11=-192(LC 9), 10=-173(LC 9), 9=-152(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 14, 13, 12, 11, 10, 9 except 8=606(LC 9)

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

TOP CHORD 4-5=-251/112, 5-6=-444/201, 6-7=-621/276, 7-8=-763/333  
 BOT CHORD 13-14=-201/476, 12-13=-201/476, 11-12=-201/476, 10-11=-201/476, 9-10=-201/476, 8-9=-201/476  
 WEBS 3-12=-156/250

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb) 8=243, 12=227, 11=192, 10=173, 9=152.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

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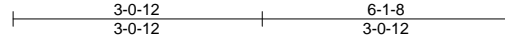
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686641
RR118	LAY9	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:00 2021 Page 1

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3x4 =

Scale = 1:28.3

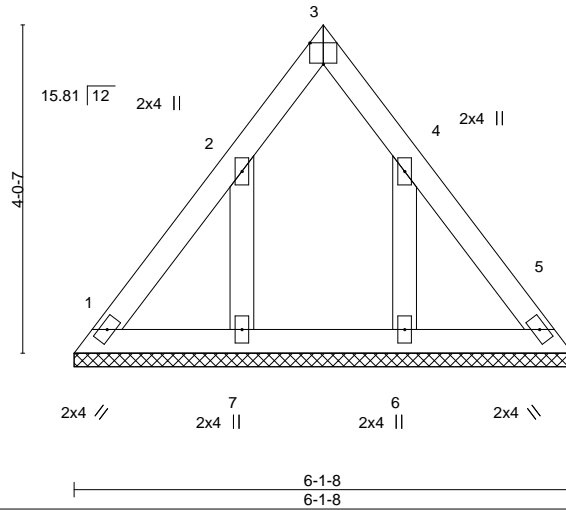


Plate Offsets (X,Y)-- [3:Edge,0-3-2]

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 0.05	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P					Weight: 23 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

All bearings 6-1-8.  
 (lb) - Max Horz 1=-103(LC 4)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 7=-149(LC 8), 6=-148(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 6

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 7=149, 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.



November 8, 2021

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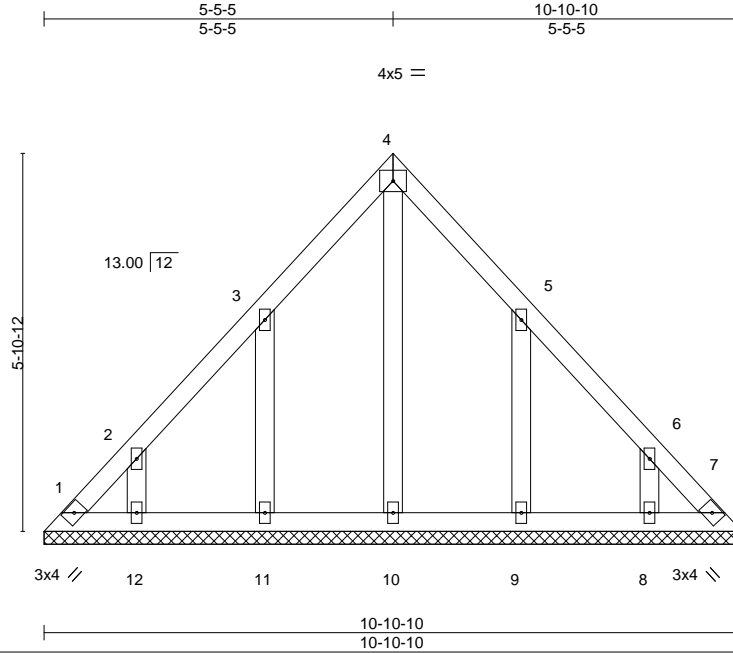
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686642
RR118	LAY10	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:26:52 2021 Page 1

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Scale = 1:35.9

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 45 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

All bearings 10-10-10.  
 (lb) - Max Horz 1=148(LC 5)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=140(LC 8), 12=112(LC 8), 9=139(LC 9), 8=113(LC 9)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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) 1, 7 except (jt=lb) 11=140, 12=112, 9=139, 8=113.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 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



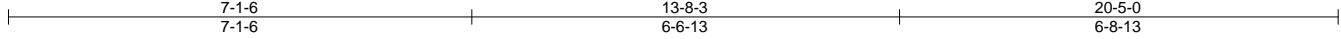
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	148686643
RR118	R1	Half Hip Girder	1	2	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:02 2021 Page 1

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Scale = 1:35.4

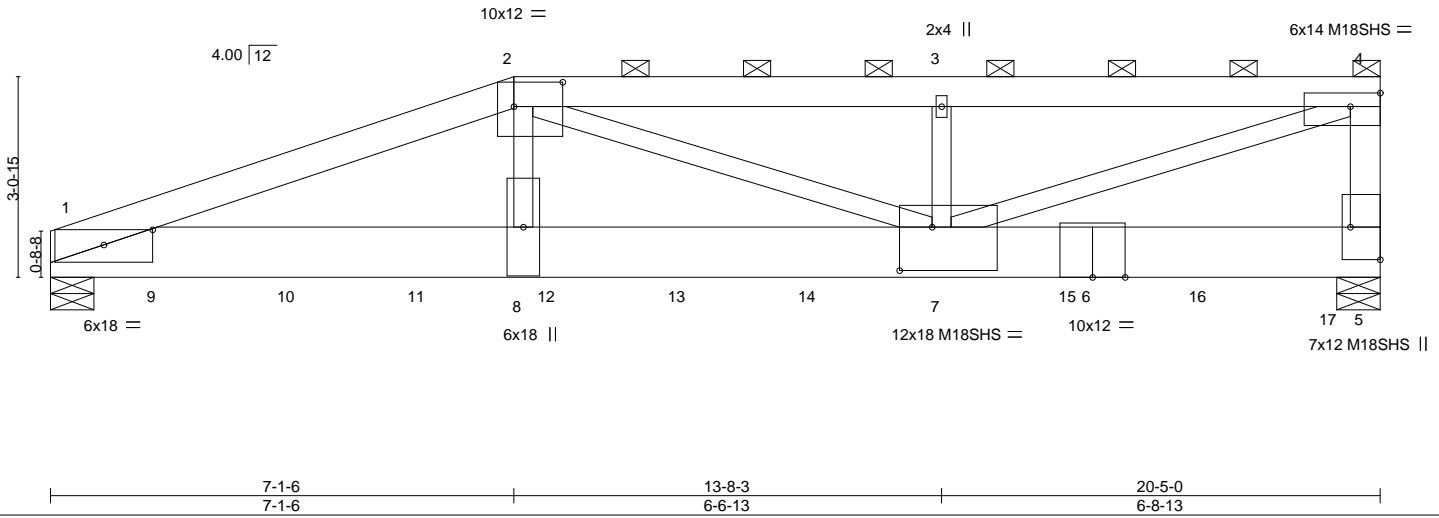


Plate Offsets (X,Y)-- [1:0-9-0,0-2-13], [2:0-9-0,0-4-8], [4:Edge,0-2-8], [5:Edge,0-5-8], [7:0-6-0,0-8-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.80	Vert(LL) -0.30	7-8	>795	360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.92	Vert(CT) -0.53	7-8	>450	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.92	Horz(CT) 0.06	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.18	7-8	>999	240		
							Weight: 280 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x6 SPF 1650F 1.4E  
 BOT CHORD 2x10 SP DSS  
 WEBS 2x4 SPF No.2 \*Except\*  
 4-5: 2x6 SPF No.2, 2-7,4-7: 2x4 SPF 2100F 1.8E

**BRACING-**

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

**REACTIONS.**

(size) 1=0-8-0, 5=0-8-0  
 Max Horz 1=83(LC 5)  
 Max Uplift 1=890(LC 4), 5=95(LC 4)  
 Max Grav 1=8861(LC 1), 5=10216(LC 1)

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

TOP CHORD 1-2=-19330/1745, 2-3=-17184/1025, 3-4=-17184/1025, 4-5=-6569/432  
 BOT CHORD 1-8=-1626/18122, 7-8=-1670/18506, 5-7=-20/840  
 WEBS 2-8=-737/6490, 2-7=-1412/758, 3-7=-362/265, 4-7=-1069/17478

**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 0-4-0 oc.  
 Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-5-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 1=890.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



November 8, 2021

Continued on page 2

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686643
RR118	R1	Half Hip Girder	1	<b>2</b>	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:02 2021 Page 2  
 ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-OcyU\_VpVO\_xJbKZZrZOtjyq\_?g6akaeX48VwGOyMHR7

**NOTES-**

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 754 lb down and 153 lb up at 1-7-12, 347 lb down and 24 lb up at 1-7-12, 1123 lb down and 175 lb up at 3-7-12, 754 lb down and 182 lb up at 3-7-12, 967 lb down and 31 lb up at 5-7-12, 754 lb down and 94 lb up at 5-7-12, 967 lb down and 70 lb up at 7-7-12, 754 lb down and 109 lb up at 7-7-12, 1051 lb down and 190 lb up at 9-7-12, 754 lb down and 109 lb up at 9-7-12, 1057 lb down and 163 lb up at 11-7-12, 754 lb down and 109 lb up at 11-7-12, 1057 lb down and 23 lb up at 13-7-12, 754 lb down and 109 lb up at 13-7-12, 1057 lb down at 15-7-12, 754 lb down and 109 lb up at 15-7-12, 1053 lb down at 17-7-12, 754 lb down and 109 lb up at 17-7-12, and 1062 lb down at 19-7-12, and 759 lb down and 104 lb up at 19-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-4=-70, 1-5=-20

Concentrated Loads (lb)

Vert: 7=-1812(F=-754, B=-1057) 9=-1101(F=-754, B=-347) 10=-1878(F=-754, B=-1123) 11=-1721(F=-754, B=-967) 12=-1721(F=-754, B=-967) 13=-1805(F=-754, B=-1051) 14=-1812(F=-754, B=-1057) 15=-1812(F=-754, B=-1057) 16=-1807(F=-754, B=-1053) 17=-1821(F=-759, B=-1062)

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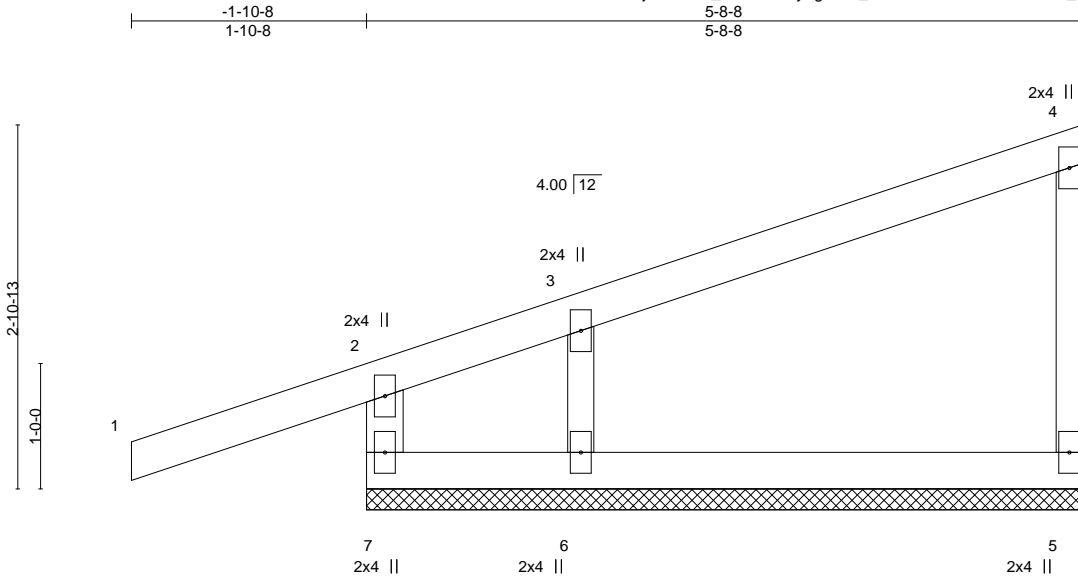
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686644
RR118	V8	Valley	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:07 2021 Page 1  
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Scale = 1:18.4

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.01	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	1	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 19 lb	FT = 10%

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2 \*Except\*  
 4-5: 2x3 SPF No.2  
 OTHERS 2x3 SPF No.2

**BRACING-**

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

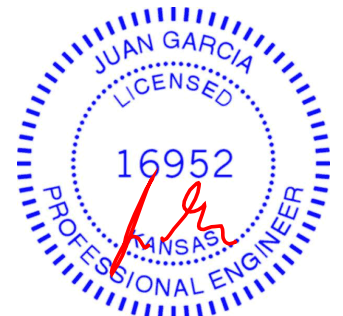
**REACTIONS.**

(size) 7=5-8-8, 5=5-8-8, 6=5-8-8  
 Max Horz 7=124(LC 5)  
 Max Uplift 7=-102(LC 4), 5=-28(LC 4), 6=-76(LC 8)  
 Max Grav 7=248(LC 1), 5=153(LC 1), 6=232(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 7=102.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



November 8, 2021

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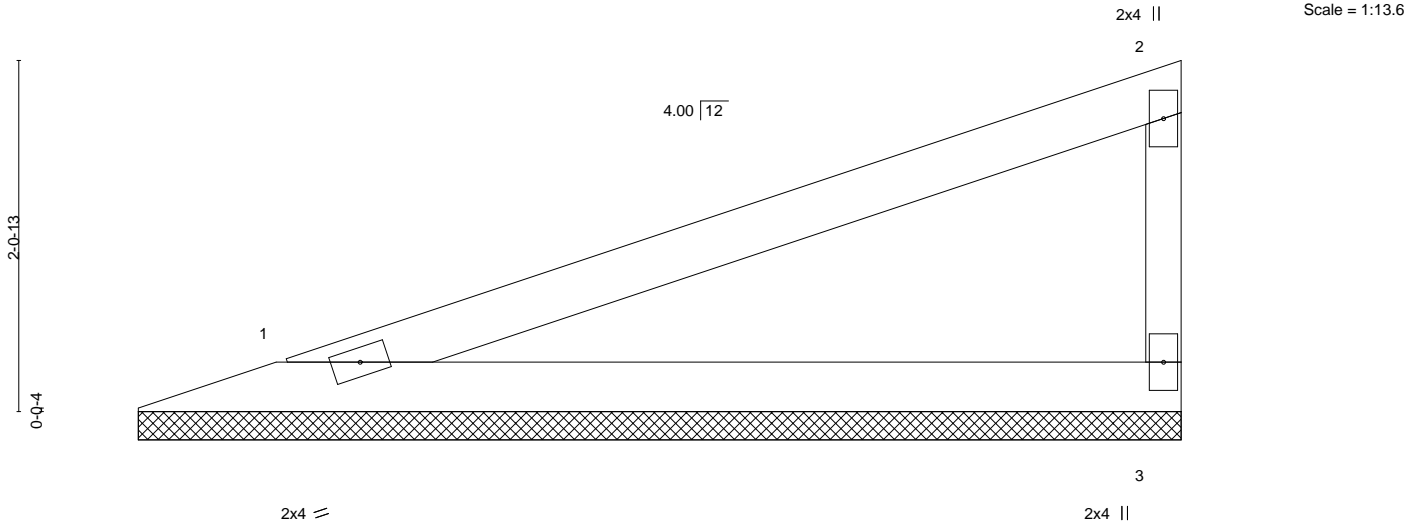
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686645
RR118	V9	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:08 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-DmJmEZuG\_qhTJF0iBqVHzD43?4Jy8WUQS4yET2yMHR1  
6-2-8  
6-2-8



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	Weight: 15 lb	FT = 10%
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						

**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 6-2-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=6-1-12, 3=6-1-12  
Max Horz 1=77(LC 5)  
Max Uplift 1=-38(LC 4), 3=-49(LC 8)  
Max Grav 1=232(LC 1), 3=232(LC 1)

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

**NOTES-**

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



November 8, 2021

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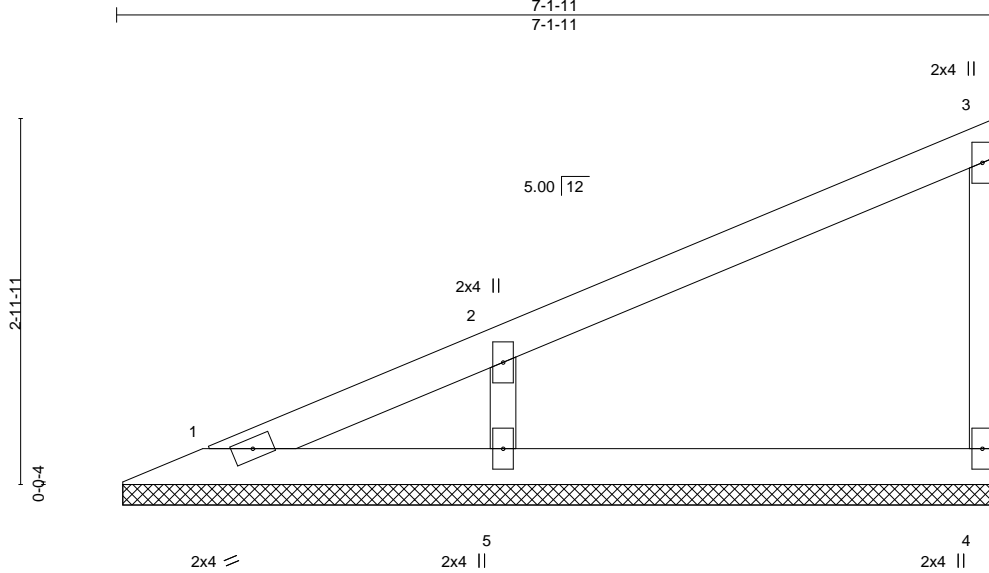
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686646
RR118	V10	Valley	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:02 2021 Page 1

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Scale = 1:18.7

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	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  
 WEBS 2x3 SPF No.2  
 OTHERS 2x3 SPF No.2

**BRACING-**

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

**REACTIONS.**

(size) 1=7-1-2, 4=7-1-2, 5=7-1-2  
 Max Horz 1=115(LC 5)  
 Max Uplift 4=-27(LC 8), 5=-98(LC 8)  
 Max Grav 1=62(LC 16), 4=142(LC 1), 5=370(LC 1)

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

WEBS 2-5=-288/148

**NOTES-**

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



November 8, 2021

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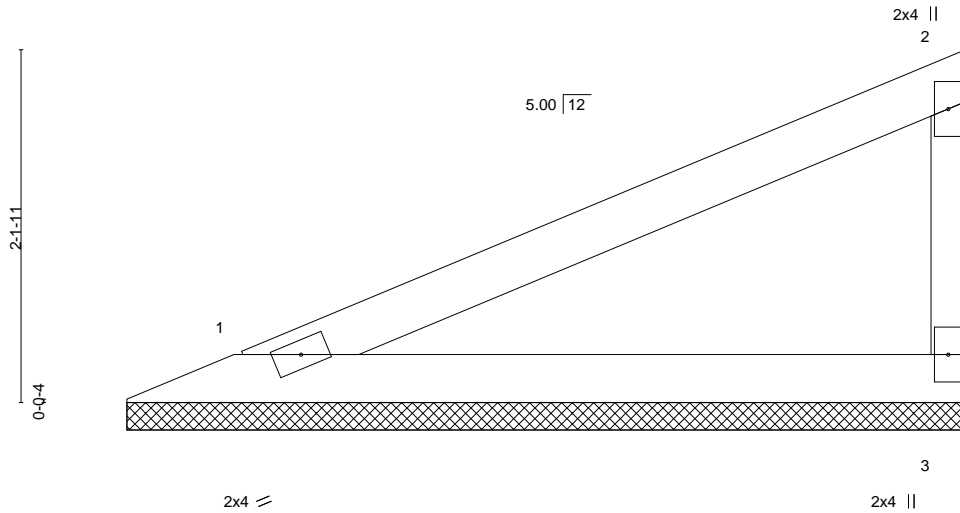
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686647
RR118	V11	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:03 2021 Page 1

ID:Ej7EWovY\_94Pzt7UVy1gWAZ\_t70-soWtBrq79H3ADU8IOGw6G9NGu3eETFFhJoFToqyMHR6  
5-1-11  
5-1-11



Scale = 1:14.0

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	Weight: 12 lb	FT = 10%
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-1-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

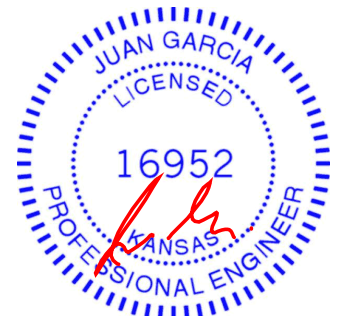
**REACTIONS.**

(size) 1=5-1-2, 3=5-1-2  
Max Horz 1=78(LC 5)  
Max Uplift 1=-28(LC 8), 3=-44(LC 8)  
Max Grav 1=193(LC 1), 3=193(LC 1)

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

**NOTES-**

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



November 8, 2021

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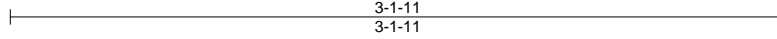
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686648
RR118	V12	Valley	1	1		

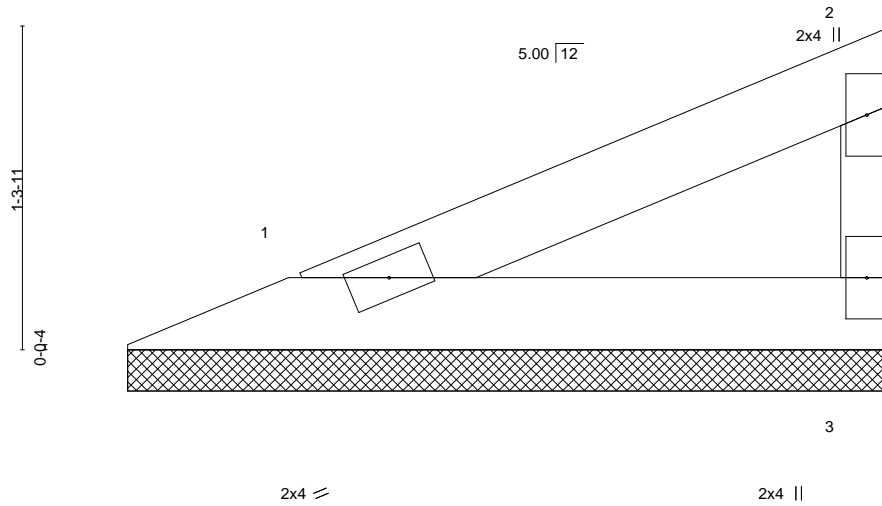
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:04 2021 Page 1

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Scale = 1:9.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 7 lb	FT = 10%
	Code IRC2018/TPI2014							

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-1-11 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=3-1-2, 3=3-1-2  
 Max Horz 1=42(LC 5)  
 Max Uplift 1=15(LC 8), 3=23(LC 8)  
 Max Grav 1=103(LC 1), 3=103(LC 1)

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

**NOTES-**

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



November 8, 2021

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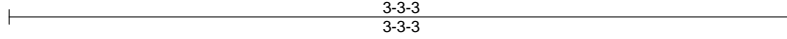
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686649
RR118	V13	Valley	1	1		

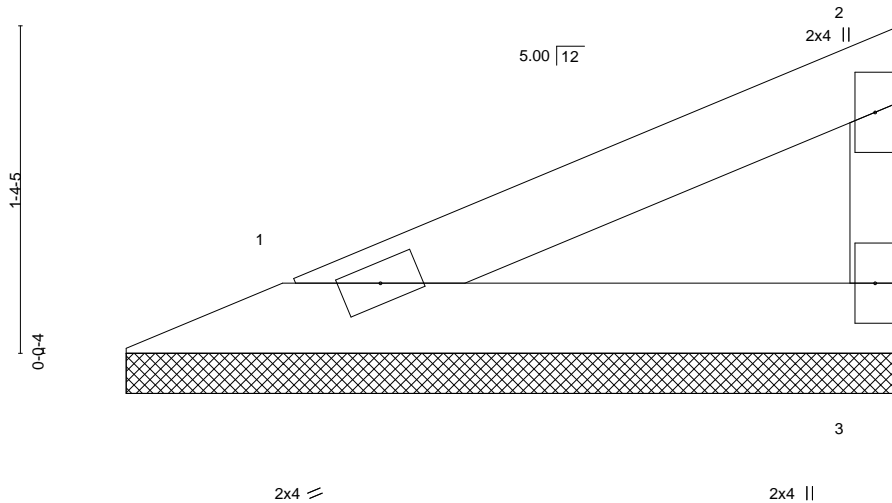
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:05 2021 Page 1

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Scale = 1:9.6



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 7 lb	FT = 10%
	Code IRC2018/TPI2014							

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=3-2-10, 3=3-2-10  
 Max Horz 1=44(LC 5)  
 Max Uplift 1=-16(LC 8), 3=-25(LC 8)  
 Max Grav 1=108(LC 1), 3=108(LC 1)

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

**NOTES-**

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



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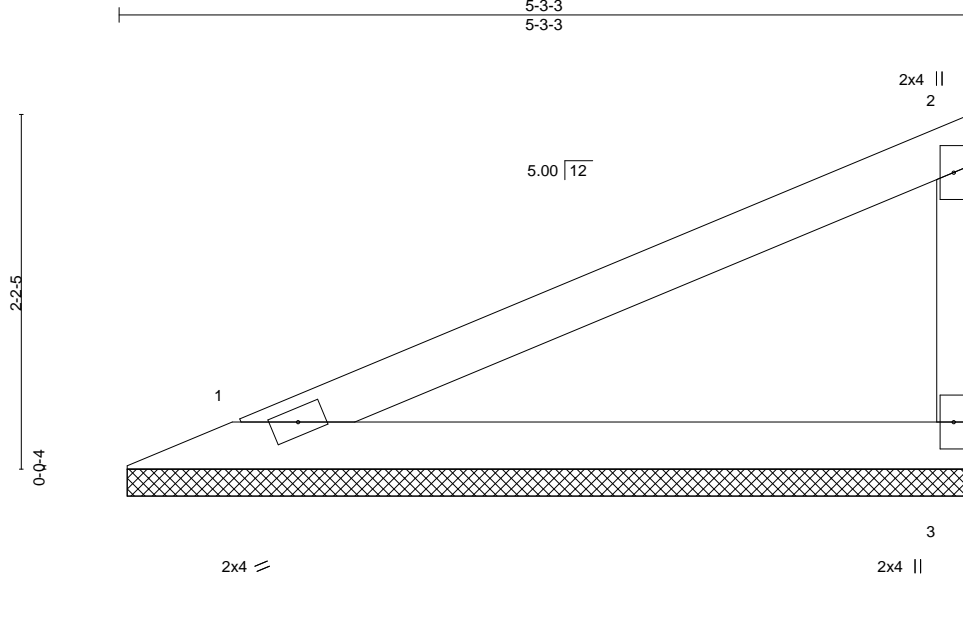


Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686650
RR118	V14	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:05 2021 Page 1

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Scale = 1:14.3

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	Weight: 13 lb	FT = 10%
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						

**LUMBER-**

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

**BRACING-**

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

**REACTIONS.**

(size) 1=5-2-10, 3=5-2-10  
 Max Horz 1=81(LC 5)  
 Max Uplift 1=-29(LC 8), 3=-45(LC 8)  
 Max Grav 1=198(LC 1), 3=198(LC 1)

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

**NOTES-**

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



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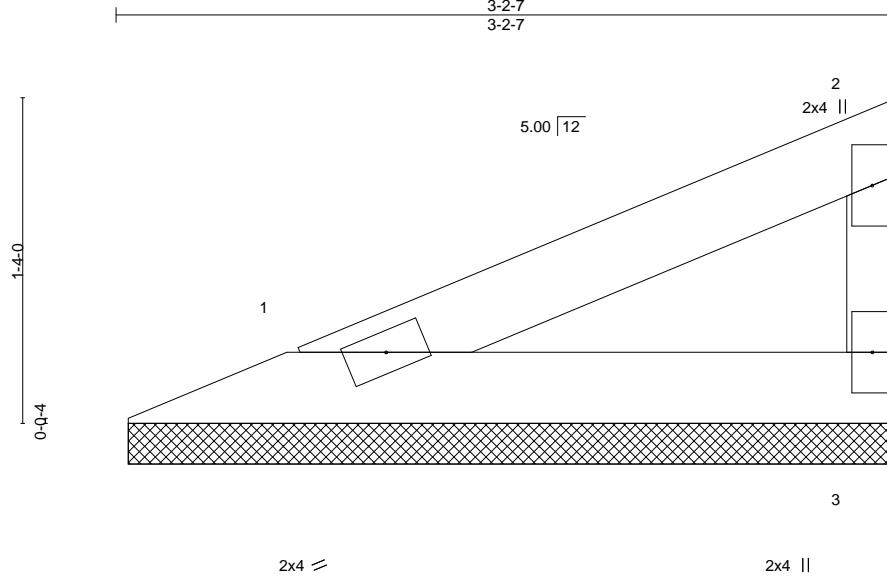
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 118 RR	I48686651
RR118	V15	Valley	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Nov 5 09:27:06 2021 Page 1

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Scale = 1:9.4

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 7 lb	FT = 10%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 3-2-7 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.**

(size) 1=3-1-14, 3=3-1-14  
 Max Horz 1=43(LC 5)  
 Max Uplift 1=-15(LC 8), 3=-24(LC 8)  
 Max Grav 1=106(LC 1), 3=106(LC 1)

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

**NOTES-**

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



November 8, 2021

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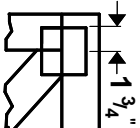
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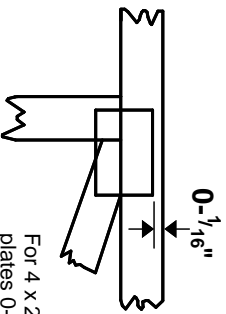
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 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

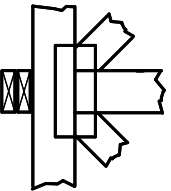
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



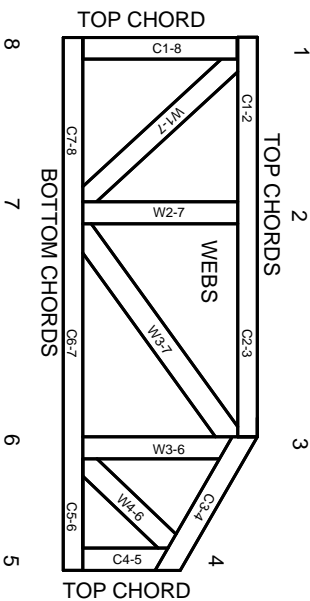
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative T or I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020