



RE: 210383
Lot 60 W2

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

Site Information:

Customer: Project Name: 210383
Lot/Block:
Address:
City:

Model:
Subdivision:
State:

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

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

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

This package includes 80 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I43966986	A1	4/12/2021	21	I43967006	C3	4/12/2021
2	I43966987	A2	4/12/2021	22	I43967007	C4	4/12/2021
3	I43966988	A3	4/12/2021	23	I43967008	C5	4/12/2021
4	I43966989	A4	4/12/2021	24	I43967009	D1	4/12/2021
5	I43966990	B1	4/12/2021	25	I43967010	D2	4/12/2021
6	I43966991	B2	4/12/2021	26	I43967011	D3	4/12/2021
7	I43966992	B3	4/12/2021	27	I43967012	D4	4/12/2021
8	I43966993	B4	4/12/2021	28	I43967013	D5	4/12/2021
9	I43966994	B5	4/12/2021	29	I43967014	D6	4/12/2021
10	I43966995	B6	4/12/2021	30	I43967015	D7	4/12/2021
11	I43966996	B7	4/12/2021	31	I43967016	D8	4/12/2021
12	I43966997	B8	4/12/2021	32	I43967017	D9	4/12/2021
13	I43966998	B9	4/12/2021	33	I43967018	E1	4/12/2021
14	I43966999	B10	4/12/2021	34	I43967019	E2	4/12/2021
15	I43967000	B11	4/12/2021	35	I43967020	E3	4/12/2021
16	I43967001	B12	4/12/2021	36	I43967021	E4	4/12/2021
17	I43967002	B13	4/12/2021	37	I43967022	J1	4/12/2021
18	I43967003	B14	4/12/2021	38	I43967023	J2	4/12/2021
19	I43967004	C1	4/12/2021	39	I43967024	J3	4/12/2021
20	I43967005	C2	4/12/2021	40	I43967025	J4	4/12/2021

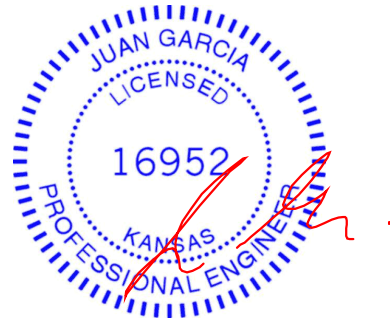
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

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.



April 12, 2021



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No.	Seal#	Truss Name	Date
41	I43967026	J5	4/12/2021
42	I43967027	J6	4/12/2021
43	I43967028	J7	4/12/2021
44	I43967029	J8	4/12/2021
45	I43967030	J9	4/12/2021
46	I43967031	J10	4/12/2021
47	I43967032	J11	4/12/2021
48	I43967033	J12	4/12/2021
49	I43967034	J13	4/12/2021
50	I43967035	J14	4/12/2021
51	I43967036	J15	4/12/2021
52	I43967037	J16	4/12/2021
53	I43967038	J17	4/12/2021
54	I43967039	J18	4/12/2021
55	I43967040	J19	4/12/2021
56	I43967041	J20	4/12/2021
57	I43967042	J21	4/12/2021
58	I43967043	J22	4/12/2021
59	I43967044	J23	4/12/2021
60	I43967045	J24	4/12/2021
61	I43967046	J25	4/12/2021
62	I43967047	J26	4/12/2021
63	I43967048	J27	4/12/2021
64	I43967049	J28	4/12/2021
65	I43967050	J29	4/12/2021
66	I43967051	J30	4/12/2021
67	I43967052	LAY1	4/12/2021
68	I43967053	LAY2	4/12/2021
69	I43967054	LAY3	4/12/2021
70	I43967055	LAY4	4/12/2021
71	I43967056	LAY5	4/12/2021
72	I43967057	LAY6	4/12/2021
73	I43967058	LAY7	4/12/2021
74	I43967059	V1	4/12/2021
75	I43967060	V2	4/12/2021
76	I43967061	V3	4/12/2021
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Design Program: MiTek 20/20 8.4
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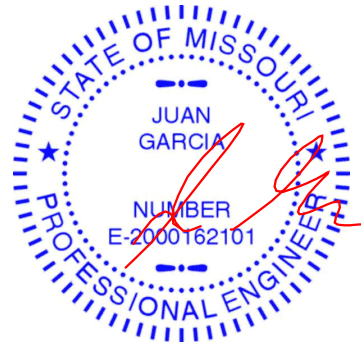
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based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

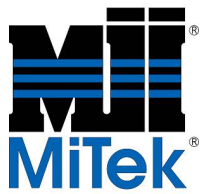
My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: 001193

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78	I43967063	V5	4/12/2021
79	I43967064	V6	4/12/2021
80	I43967065	V7	4/12/2021

Scale = 1:22.8

WARNING: Velly design parameters are listed below and included with the key reference to AISC M14-15 167, § 9.5.2020 by ONE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the 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/TPI 1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job	Truss	Truss Type	Qty	Ply	Lot 60 W2
210383	A1	Hip Girder	1	1	I43966986
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:33 2020 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-7=-70, 8-11=-20
- Concentrated Loads (lb)
 - Vert: 10=-157(B) 4=-60(B) 9=-157(B) 12=-60(B) 13=-60(B) 14=-30(B) 15=-30(B) 16=-30(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 60 W2	I43966987
210383	A2	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:34 2020 Page 1

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Job Reference (optional)

-0-10-8	3-7-7	8-4-9	12-0-0	12-10-8
0-10-8	3-7-7	4-9-2	3-7-7	0-10-8

Scale = 1:22.8

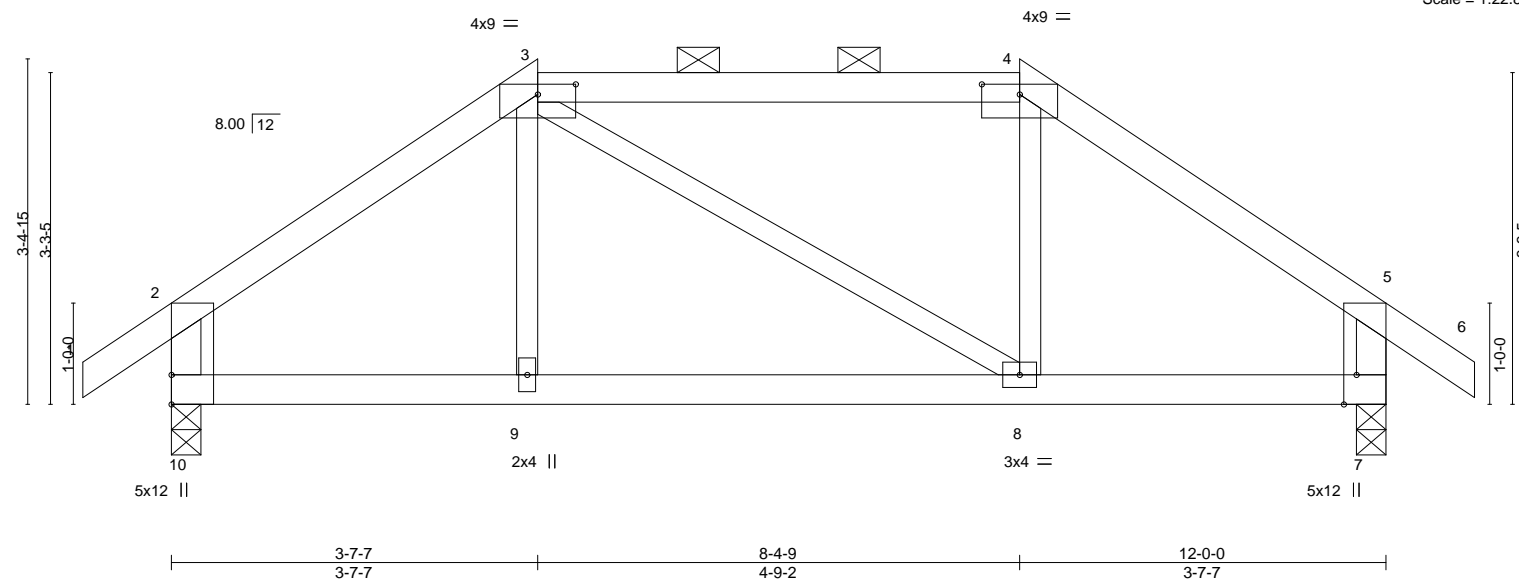


Plate Offsets (X,Y)--		[3:0-4-8,0-1-3], [4:0-4-8,0-1-3], [7:0-3-8,Edge]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.05 8-9 >999 360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.11 8-9 >999 240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.01 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.03 8-9 >999 240	Weight: 42 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.

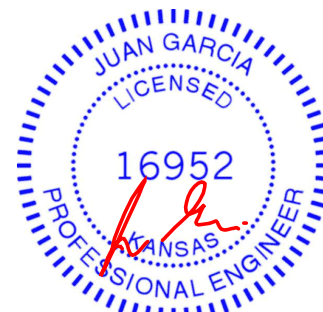
(size) 10=0-3-8, 7=0-3-8
Max Horz 10=-106(LC 6)
Max Uplift 10=-65(LC 8), 7=-65(LC 9)
Max Grav 10=598(LC 1), 7=598(LC 1)

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

TOP CHORD 2-3=-599/44, 3-4=-420/76, 4-5=-599/43, 2-10=-522/89, 5-7=-522/89
BOT CHORD 9-10=-69/421, 8-9=-70/420, 7-8=-20/421

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) 10, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11,2020

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

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



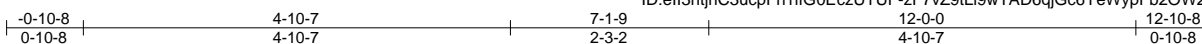
16023 Swingley Ridge Rd
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Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43966988
210383	A3	Hip	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:35 2020 Page 1

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4x9 =

4x9 =

Scale = 1:26.3

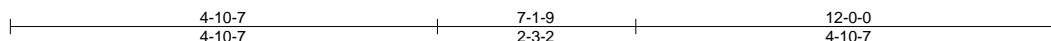
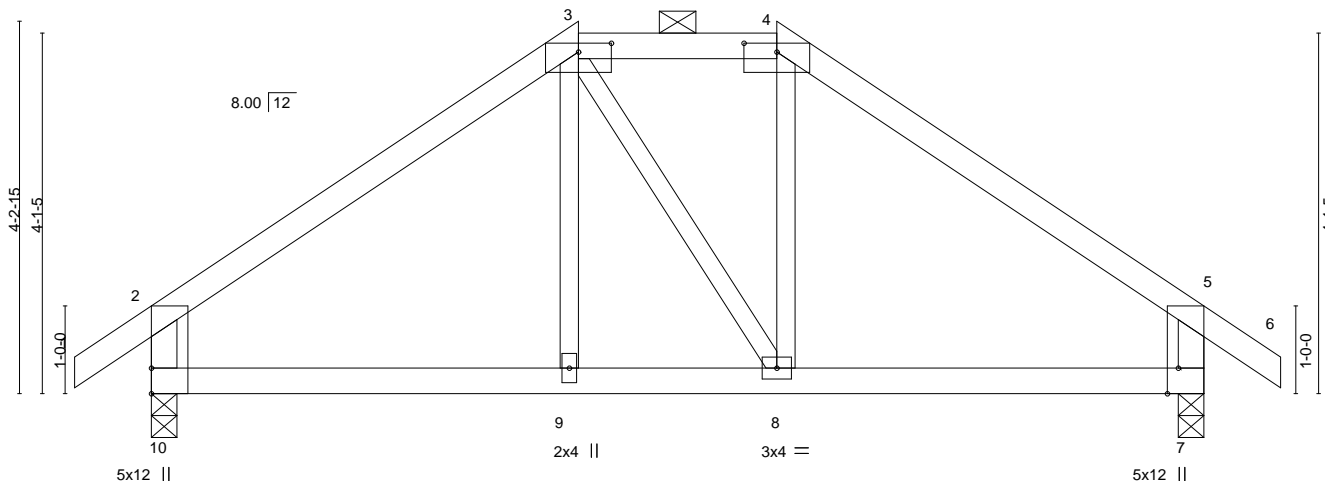


Plate Offsets (X,Y)-- [3:0-4-8,0-1-3], [4:0-4-8,0-1-3], [7:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	-0.03	8-9	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.06	8-9	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.01	8	>999	240	Weight: 43 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=128(LC 7)
Max Uplift 10=75(LC 8), 7=75(LC 9)
Max Grav 10=598(LC 1), 7=598(LC 1)

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

TOP CHORD 2-3=-568/63, 3-4=-378/104, 4-5=-568/63, 2-10=-529/115, 5-7=-529/115
BOT CHORD 9-10=-38/379, 8-9=-39/378, 7-8=0/379

NOTES-

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



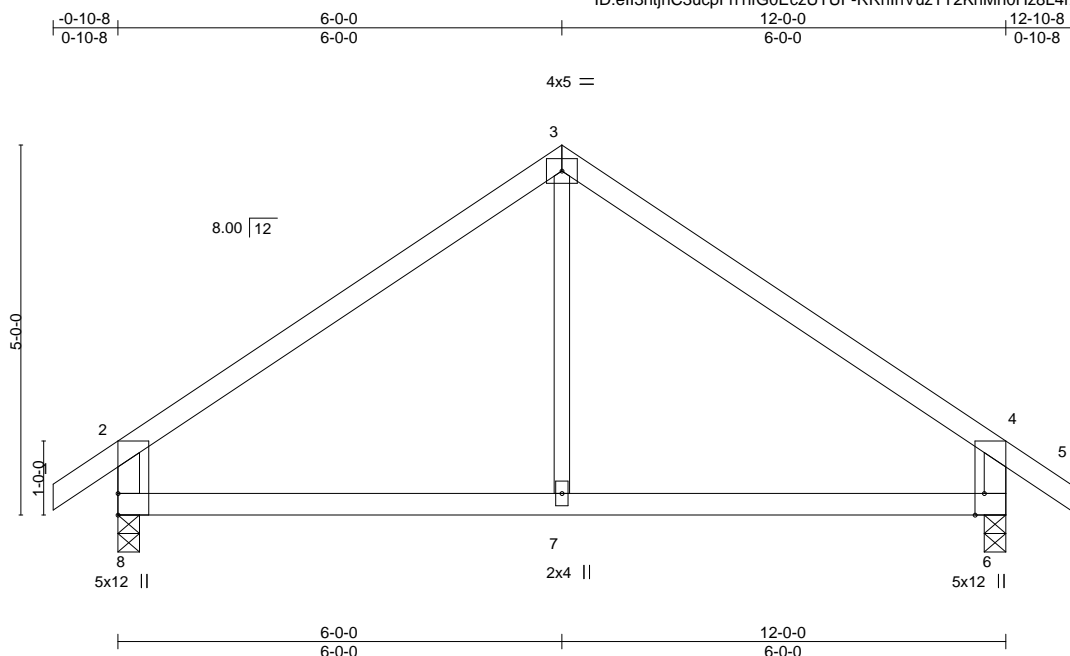
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43966989
210383	A4	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:36 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-RRhInVuzTT2KnMh0Hz8L4r27DfyY7ymJdrXNBEyA4vX



Scale = 1:31.1

Plate Offsets (X,Y)-- [6:0-3-8,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.03	6-7	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.06	6-7	>999	240	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	6	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	-0.03	7-8	>999	240	Weight: 38 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=149(LC 7)
 Max Uplift 8=81(LC 8), 6=81(LC 9)
 Max Grav 8=598(LC 1), 6=598(LC 1)

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

TOP CHORD 2-3=-551/100, 3-4=-551/100, 2-8=-537/128, 4-6=-537/128
 BOT CHORD 7-8=0/361, 6-7=0/361

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.



December 11, 2020

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43966990
210383	B1	Half Hip Girder	1	2	Job Reference (optional)	

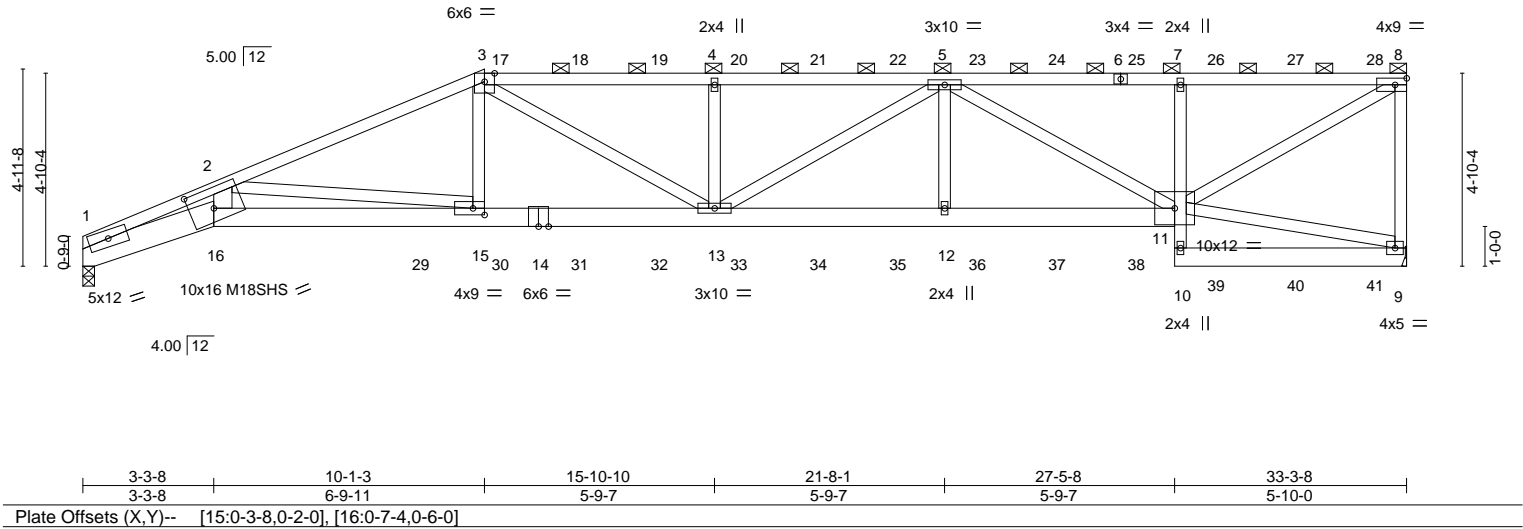
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:39 2020 Page 1

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Scale = 1:57.9



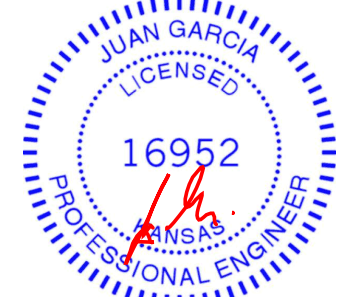
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.91	Vert(LL) -0.30 15-16 >999 360	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.70	Vert(CT) -0.54 15-16 >729 240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.57	Horz(CT) 0.25 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Wind(LL) 0.25 15-16 >999 240	Weight: 366 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 4-5-4 oc purlins, except end verticals, and 2-0-0 oc purlins (3-9-10 max.): 3-8.
1-3: 2x4 SPF 2100F 1.8E	
BOT CHORD 2x6 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
1-16: 2x8 SP DSS, 7-10: 2x4 SPF No.2	
WEBS 2x4 SPF No.2 *Except*	
2-16: 2x6 SPF No.2	

REACTIONS. (size) 1=0-3-8, 9=Mechanical
Max Horz 1=149(LC 26)
Max Uplift 1=481(LC 8), 9=529(LC 5)
Max Grav 1=2733(LC 1), 9=2963(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-11894/2299, 2-3=-7024/1434, 3-4=-7130/1414, 4-5=-7127/1413, 5-7=-3985/757, 7-8=-3969/768, 8-9=-2808/602
BOT CHORD 1-16=-2242/10879, 15-16=-1979/9563, 13-15=-1387/6387, 12-13=-1281/6527, 11-12=-1281/6527, 7-11=-655/200
WEBS 2-16=-610/3172, 2-15=-3135/632, 3-15=-343/1618, 3-13=-116/1048, 4-13=-772/266, 5-13=-218/700, 5-12=0/531, 5-11=-2947/580, 8-11=-886/4635

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 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.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=481, 9=529.



December 11, 2020

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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2
210383	B1	Half Hip Girder	1	2	I43966990

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:39 2020 Page 2
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- NOTES-**
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 114 lb down and 78 lb up at 10-5-7, 116 lb down and 78 lb up at 12-5-7, 116 lb down and 78 lb up at 14-5-7, 116 lb down and 78 lb up at 16-5-7, 116 lb down and 78 lb up at 18-5-7, 116 lb down and 78 lb up at 20-5-7, 116 lb down and 79 lb up at 22-5-7, 76 lb down and 24 lb up at 24-5-7, 76 lb down and 24 lb up at 26-5-7, 124 lb down and 94 lb up at 28-5-7, and 124 lb down and 94 lb up at 30-5-7, and 129 lb down and 91 lb up at 32-5-7 on top chord, and 731 lb down and 297 lb up at 8-5-7, 71 lb down and 21 lb up at 10-5-7, 71 lb down and 21 lb up at 12-5-7, 71 lb down and 21 lb up at 14-5-7, 71 lb down and 21 lb up at 16-5-7, 71 lb down and 21 lb up at 18-5-7, 71 lb down and 21 lb up at 20-5-7, 91 lb down at 22-5-7, 142 lb down and 73 lb up at 24-5-7, 142 lb down and 73 lb up at 26-5-7, 71 lb down at 28-5-7, and 71 lb down at 30-5-7, and 77 lb down at 32-5-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

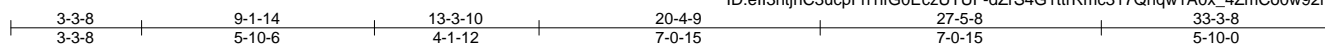
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-3=-70, 3-8=-70, 1-16=-20, 11-16=-20, 9-10=-20
- Concentrated Loads (lb)
 - Vert: 17=-93(F) 18=-93(F) 19=-93(F) 20=-93(F) 21=-93(F) 22=-93(F) 23=-100(F) 24=-24(F) 25=-24(F) 26=-114(F) 27=-114(F) 28=-125(F) 29=-731(F) 30=-71(F) 31=-71(F) 32=-71(F) 33=-71(F) 34=-71(F) 35=-71(F) 36=-75(F) 37=-142(F) 38=-142(F) 39=-50(F) 40=-50(F) 41=-53(F)

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43966991
210383	B2	Half Hip	1	1		

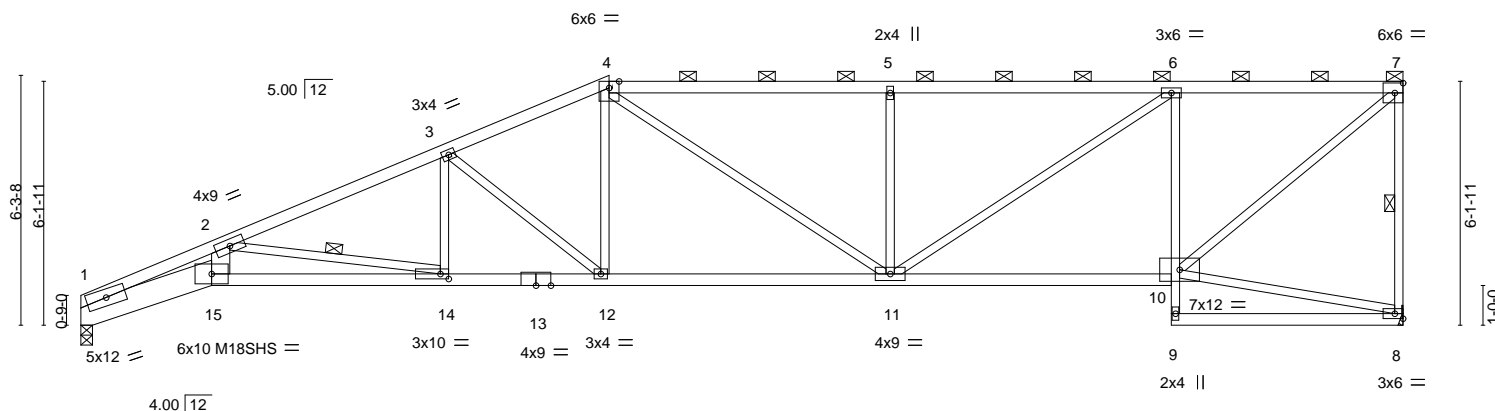
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:47 2020 Page 1

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Scale = 1:58.0



	3-3-8	9-1-14	13-3-10	20-4-9	27-5-8	33-3-8
	3-3-8	5-10-6	4-1-12	7-0-15	7-0-15	5-10-0

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

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 0.72	Vert(LL)	-0.32 14-15	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.59 14-15	>668	240	M18SHS	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.68	Horz(CT)	0.30 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.18 14-15	>999	240	Weight: 137 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
 BOT CHORD 2x4 SPF No.2 *Except*
 1-15: 2x8 SP DSS, 13-15: 2x4 SPF 2100F 1.8E, 6-9: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-15: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 8=Mechanical
 Max Horz 1=194(LC 7)
 Max Uplift 1=-4(LC 8), 8=-70(LC 5)
 Max Grav 1=1487(LC 1), 8=1487(LC 1)

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

TOP CHORD 1-2=-6369/165, 2-3=-3378/56, 3-4=-2686/79, 4-5=-2496/115, 5-6=-2493/113, 6-7=-1536/98, 7-8=-1430/106
 BOT CHORD 1-15=-331/5810, 14-15=-304/5071, 12-14=-171/3082, 11-12=-150/2422, 10-11=-126/1546, 6-10=-1120/141
 WEBS 2-15=-38/1835, 4-12=-0/615, 4-11=-39/311, 5-11=-565/130, 6-11=-40/1144, 7-10=-118/1989, 3-12=-832/83, 3-14=-0/409, 2-14=-2014/134

NOTES-

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



December 11, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43966992
210383	B3	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:48 2020 Page 1

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3-3-8	9-1-14	16-6-0	21-11-12	27-5-8	33-3-8
3-3-8	5-10-5	7-4-2	5-5-12	5-5-12	5-10-0

Scale = 1:58.2

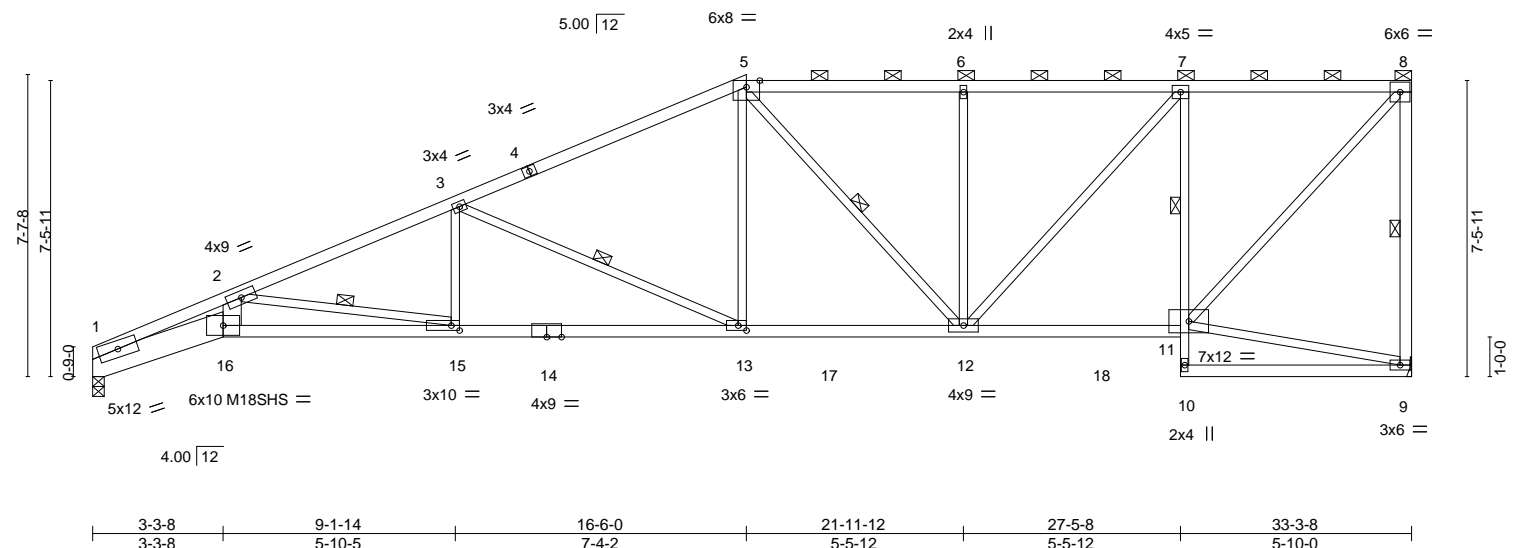


Plate Offsets (X,Y)--		[13:0-2-8,0-1-8], [15:0-2-8,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.75	Vert(LL)	-0.36 15-16 >999 360	MT20	197/144		
TCDL	10.0	Lumber DOL 1.15		BC	0.95	Vert(CT)	-0.62 15-16 >635 240	M18SHS	197/144		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.75	Horz(CT)	0.30 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.18 15-16 >999 240	Weight: 146 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
5-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-16: 2x8 SP DSS, 14-16: 2x4 SPF 2100F 1.8E, 7-10: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
8-9: 2x4 SPF No.2, 2-16: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-3 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-10 max.): 5-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 13-15.
WEBS 1 Row at midpt 7-11
1 Row at midpt 8-9, 2-15, 3-13, 5-12

REACTIONS.

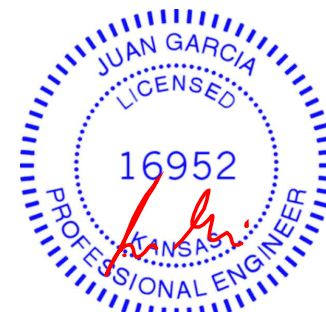
(size) 9=Mechanical, 1=0-3-8
Max Horz 1=239(LC 7)
Max Uplift 9=68(LC 5), 1=19(LC 8)
Max Grav 9=1569(LC 2), 1=1548(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6580/158, 2-3=-3559/58, 3-5=-2377/61, 5-6=-1918/91, 6-7=-1916/90, 7-8=-1246/87, 8-9=-1470/107
BOT CHORD 1-16=-340/6010, 15-16=-309/5225, 13-15=-168/3267, 12-13=-135/2105, 11-12=-113/1254, 7-11=-1121/129
WEBS 2-16=-50/1957, 2-15=-1982/143, 3-15=0/541, 3-13=-1261/122, 5-13=0/763, 5-12=-287/52, 6-12=-425/95, 7-12=-30/993, 8-11=-101/1814

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 1.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	143966993
210383	B4	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:49 2020 Page 1

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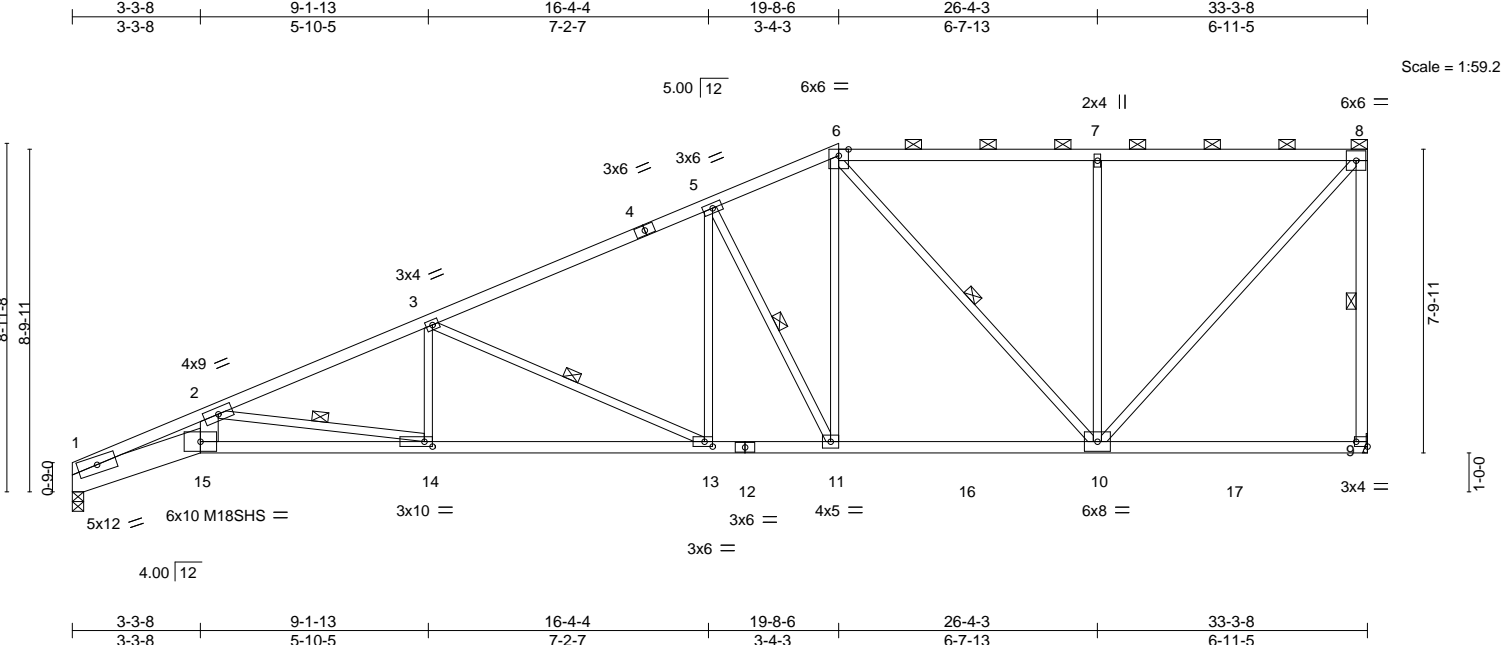


Plate Offsets (X, Y)--		[9:Edge,0-1-8], [13:0-2-8,0-1-8], [14:0-2-8,0-1-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.75	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.81	Vert(LL) -0.35 14-15 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.79	Vert(CT) -0.62 14-15 >643 240
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.26 9 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.18 14-15 >999 240
		PLATES	
		GRIP	
		MT20 197/144	
		M18SHS 197/144	
		Weight: 146 lb FT = 10%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-6-4 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-7 max.): 6-8.
1-4: 2x4 SPF 2100F 1.8E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
BOT CHORD 2x4 SPF No.2 *Except*	WEBS 1 Row at midpt 8-9, 2-14, 3-13, 5-11, 6-10
1-15: 2x8 SP DSS, 12-15: 2x4 SPF 2100F 1.8E	
WEBS 2x3 SPF No.2 *Except*	
8-9: 2x4 SPF No.2, 2-15: 2x6 SPF No.2	

REACTIONS.	(size) 9=Mechanical, 1=0-3-8
	Max Horz 1=270(LC 5)
	Max Uplift 9=66(LC 5), 1=30(LC 8)
	Max Grav 9=1606(LC 2), 1=1547(LC 2)
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-6571/255, 2-3=-3559/98, 3-5=-2361/73, 5-6=-1862/84, 6-7=-1199/87, 7-8=-1196/85, 8-9=-1469/95
BOT CHORD	1-15=-335/6001, 14-15=-304/5218, 13-14=-150/3267, 11-13=-119/2099, 10-11=-111/1677
WEBS	2-15=-48/1952, 2-14=-1975/184, 3-14=0/549, 3-13=-1283/118, 5-13=0/686, 5-11=-887/102, 6-11=-36/997, 6-10=-729/50, 7-10=-562/136, 8-10=-72/1759

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are MT20 plates unless otherwise indicated.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 1.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020

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



Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43966995
210383	B6	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:elI3thjhC3ucpFh1ifG0EczUTUF-VK5ywd4Ow3xC4gKvfdvsB0Ab?ivU8ZqW4gfgDsyA4vl

Job Reference (optional)

0-10-8	3-3-8	11-6-11	18-9-1	26-1-3	30-5-0	33-3-8
0-10-8	3-3-8	8-3-3	7-2-6	7-4-2	4-3-13	2-10-8

4x9 = 6.00 12 Scale = 1:71.5

6x6 =

5.00 12

3x4 =

3x4 =

4x9 =

11-7-8

11-5-11

0-9-0

5x12 = 6x14 M18SHS =

4.00 12

3-3-8

3-3-8

11-6-11

8-3-3

18-9-1

7-2-6

26-1-3

7-4-2

30-5-0

4-3-13

33-3-8

2-10-8

Plate Offsets (X,Y)-- [7:0-4-8,0-1-15], [14:0-2-8,0-2-0]

LOADING (psf)		SPACING-2-0-0		CSI.	DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.47	14-15	>850	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.84	14-15	>470	240	M18SHS	197/144
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.30	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.23	14-15	>999	240	Weight: 170 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except*
2-15: 2x8 SP DSS, 13-15: 2x4 SPF 2100F 1.8E

WEBS 2x4 SPF No.2 *Except*
3-15: 2x6 SPF No.2, 4-14,4-12,6-12: 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 7-8.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 14-15.

WEBS 1 Row at midpt 3-14, 4-12, 6-11, 7-11, 9-10, 8-10

REACTIONS. (size) 2=0-3-8, 10=Mechanical
Max Horz 2=335(LC 5)
Max Uplift 2=52(LC 8), 10=30(LC 8)
Max Grav 2=1612(LC 2), 10=1615(LC 2)

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

TOP CHORD 2-3=6891/375, 3-4=3173/120, 4-6=2060/110, 6-7=1072/100, 7-8=912/117

BOT CHORD 2-15=483/6322, 14-15=447/5481, 12-14=153/2879, 11-12=98/1824, 10-11=75/381

WEBS 3-15=61/2106, 3-14=2618/295, 4-14=0/568, 4-12=1226/117, 6-12=0/884, 6-11=1296/137, 8-11=59/1335, 8-10=1448/86

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11,2020

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss B8	Truss Type Roof Special	Qty 1	Ply 1	Lot 60 W2	I43966997
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Wheeler Lumber, Waverly, KS - 66871,

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ID:ell3htjhC3ucpFh1ifG0EcZUTUF-SjCjLJ5eShBwK_UHn2xKGRFxZVZAcUgpY_8mHlyA4vG

0-10-8	3-3-8	9-1-15	16-4-4	21-9-8	28-5-7	33-3-8
0-10-8	3-3-8	5-10-6	7-2-5	5-5-4	6-7-15	4-10-1

5x12 \approx 6.00 | 12

Scale = 1:73.7

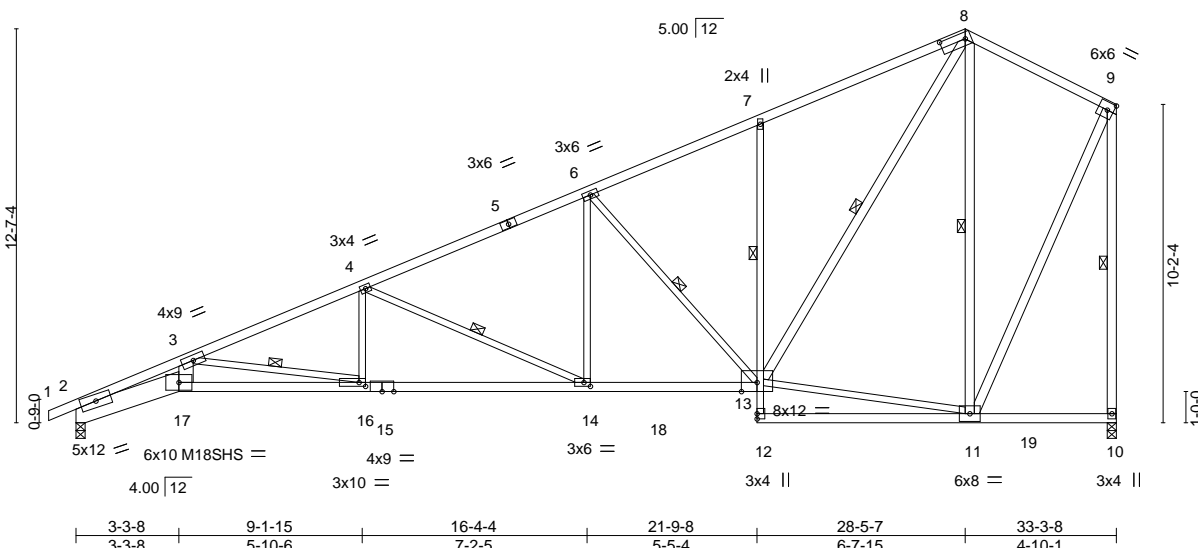


Plate Offsets (X,Y)--	[8:0-9-11,0-2-8], [14:0-2-8,0-1-8], [16:0-2-8,0-1-8]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.36 16-17	>999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.63 16-17	>628 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.74	Horz(CT)	0.29 10	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.30 16-17	>999 240
						PLATES
						MT20 197/144
						M18SHS 197/144
						Weight: 178 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-5: 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
2-17: 2x8 SP DSS, 15-17: 2x4 SPF 2100F 1.8E, 7-12: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
3-17: 2x6 SPF No.2, 8-13, 8-11, 9-10, 9-11: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
WEBS 1 Row at midpt 7-13
1 Row at midpt 3-16, 4-14, 6-13, 8-13, 8-11, 9-10

REACTIONS.

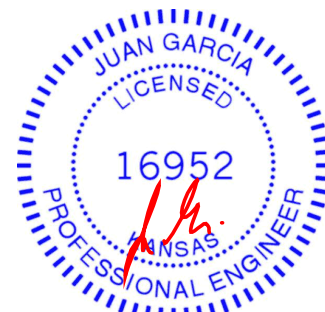
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=444(LC 8)
Max Uplift 2=222(LC 8), 10=274(LC 8)
Max Grav 2=1603(LC 2), 10=1582(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6528/1343, 3-4=-3532/546, 4-6=-2362/338, 6-7=-1545/252, 7-8=-1561/372,
8-9=-632/147, 9-10=-1500/290
BOT CHORD 2-17=-1653/5958, 16-17=-1460/5176, 14-16=-824/3242, 13-14=-507/2102, 7-13=-449/229
WEBS 3-17=-448/1948, 3-16=-1959/643, 4-16=-9/531, 4-14=-1251/348, 6-14=-60/782,
6-13=-1105/274, 11-13=-107/481, 8-13=-449/1674, 8-11=-1000/311, 9-11=-233/1234

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are MT20 plates unless otherwise indicated.
- 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=222, 10=274.
- 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.



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43966999
210383	B10	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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ID:ell3htjhC3ucpFh1ifG0EcZUTUF-KDwoctxUWhYmG_?nWpCHEhDfIGBK3ZiuYTVak?yA4vT

-0-10-8	6-9-0	13-11-7	17-10-8	21-9-8	22-10-13	27-11-6	33-3-8
0-10-8	6-9-0	7-2-7	3-11-1	3-11-0	1-1-5	5-0-10	5-4-2

Scale = 1:71.7

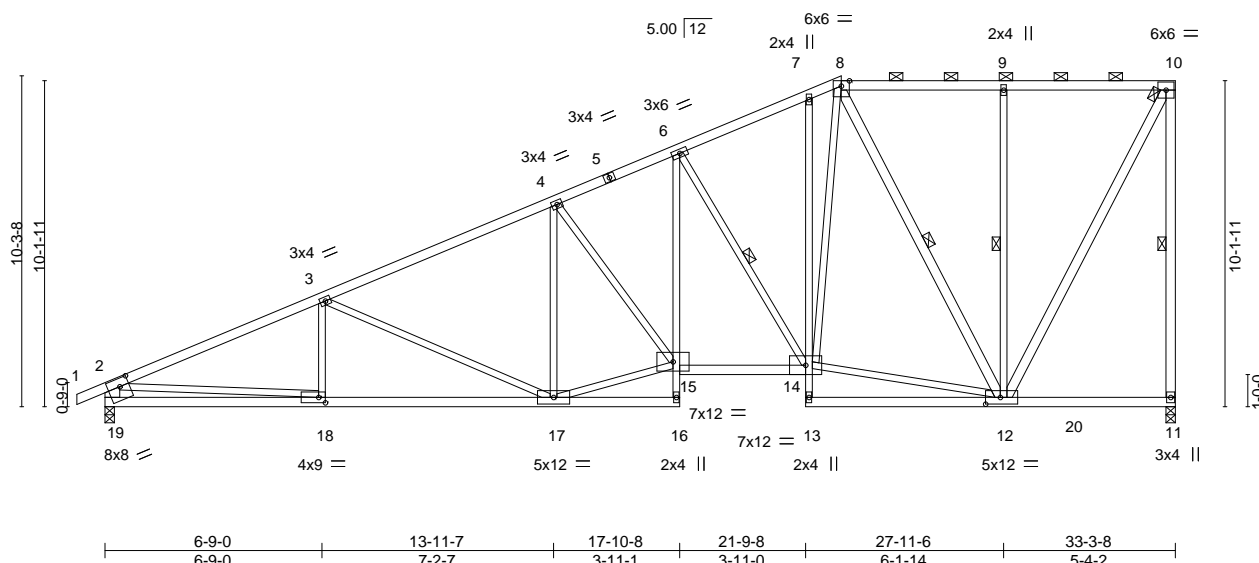


Plate Offsets (X,Y)--		[12:0-5-8,0-2-8], [18:0-2-8,0-2-0], [19:0-3-8,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.66		Vert(LL) -0.20 17-18 >999 360		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.83		Vert(CT) -0.38 17-18 >999 240					
BCLL	0.0 *	Rep Stress Incr YES		WB 0.91		Horz(CT) 0.11 11 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.13 17-18 >999 240		Weight: 181 lb		FT = 10%	

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 6-16,7-13: 2x3 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 10-11,8-12,10-12: 2x4 SPF No.2, 2-19: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-10.
 BOT CHORD Rigid ceiling directly applied or 7-5-3 oc bracing.
 WEBS 1 Row at midpt 10-11, 6-14, 8-12, 9-12

REACTIONS.

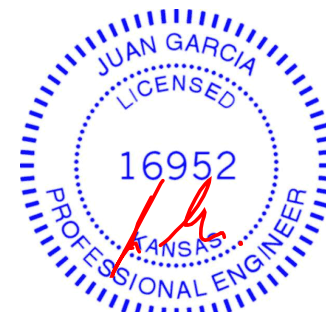
(size) 11=0-3-8, 19=0-3-8
 Max Horz 19=388(LC 8)
 Max Uplift 11=230(LC 4), 19=214(LC 8)
 Max Grav 11=1566(LC 2), 19=1589(LC 2)

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

TOP CHORD 2-3=-2823/340, 3-4=-2245/276, 4-6=-2088/319, 6-7=-1482/229, 7-8=-1363/256,
 8-9=-716/102, 9-10=-718/103, 10-11=-1460/253, 2-19=-1488/248
 BOT CHORD 18-19=-496/648, 17-18=-628/2536, 6-15=-180/956, 14-15=-395/1882
 WEBS 3-17=-590/200, 15-17=-444/2050, 6-14=-1074/281, 12-14=-215/1143, 8-14=-277/1111,
 8-12=-1059/263, 9-12=-416/173, 10-12=-217/1512, 2-18=-132/1894

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 exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=230, 19=214.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967000
210383	B11	Half Hip	1	1		

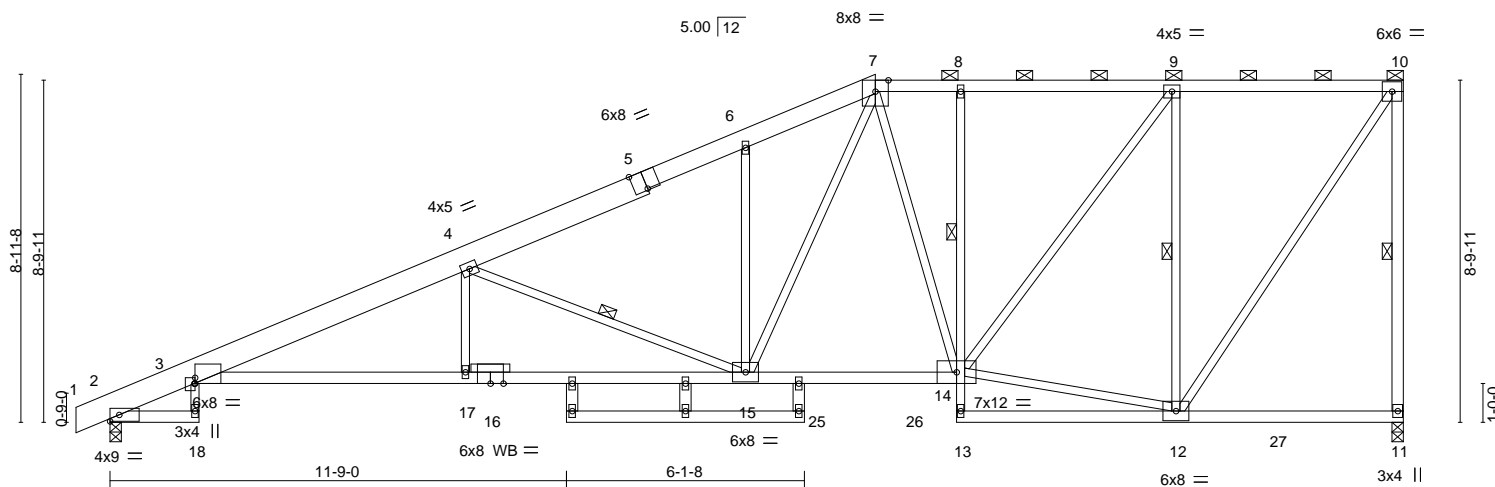
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:42 2020 Page 1

ID:ell3htjhC3ucpFh1fG0EcZUTUF-Gb2Z1Zzk2JoTVH8AdEEIK6I3E3uZXTQB0n_hOuyA4vR

0-10-8	2-3-8	9-1-13	16-4-5	19-8-6	21-9-8	27-5-4	33-3-8
0-10-8	2-3-8	6-10-5	7-2-8	3-4-2	2-1-2	5-7-12	5-10-4

Scale = 1:59.3



2-3-8	9-1-13	13-10-12	19-8-6	21-9-8	27-5-4	33-3-8
2-3-8	6-10-5	4-9-0	5-9-10	2-1-2	5-7-12	5-10-4

Plate Offsets (X,Y)-- [3:0-1-13,0-0-3], [3:0-0-3,0-0-0], [5:0-4-0,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 0.79	Vert(LL)	-0.35	3-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.62	3-17	>636	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.90	Horz(CT)	0.33	11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.25	3-17	>999	240	Weight: 193 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
7-10: 2x4 SPF No.2, 1-5: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
3-18,8-13: 2x3 SPF No.2, 3-16,14-16: 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except*
10-11,19-21,20-22,23-24: 2x4 SPF No.2
OTHERS 2x3 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (4-5-11 max.): 7-10.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 2-18.
WEBS 1 Row at midpt 8-14
1 Row at midpt 10-11, 4-15, 9-12

REACTIONS.

(size) 11=0-3-8, 2=0-3-8
Max Horz 2=374(LC 5)
Max Uplift 11=-245(LC 5), 2=-228(LC 8)
Max Grav 11=1592(LC 2), 2=1608(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-928/20, 3-4=-3744/519, 4-6=-2412/326, 6-7=-2306/405, 7-8=-1559/272, 8-9=-1555/272, 9-10=-904/212, 10-11=-1474/262
BOT CHORD 3-17=-574/3552, 15-17=-572/3551, 14-15=-319/1646, 8-14=-302/129
WEBS 4-17=0/281, 4-15=-1568/382, 7-15=-262/1143, 7-14=-314/129, 12-14=-200/882, 9-14=-169/1097, 9-12=-1286/334, 10-12=-245/1606

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=245, 2=228.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967001
210383	B12	Half Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:43 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-kocxFuzMpcwK7RjMBxm_sKrE?TDsGwGKFRjFxFxA4vQ

-0-10-8	2-3-8	9-1-13	16-6-0	21-1-0	25-5-8	33-3-8
0-10-8	2-3-8	6-10-5	7-4-4	4-7-0	4-4-8	7-10-0

Scale = 1:59.1

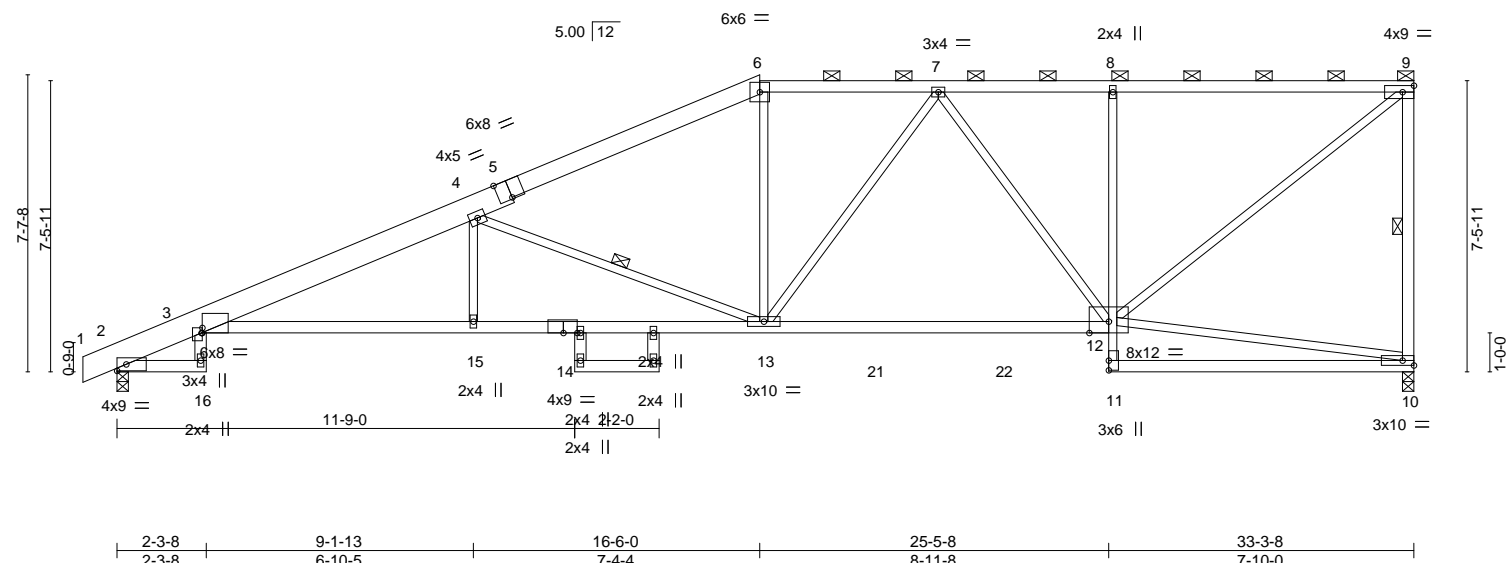


Plate Offsets (X,Y)--		[3:0-1-9,0-0-3], [3:0-0-3,0-0-0], [5:0-4-0,Edge], [14:0-4-4,0-0-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.78	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.71	Vert(LL) -0.36 12-13 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.92	Vert(CT) -0.64 12-13 >621 240
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.34 10 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.23 3-15 >999 240
		PLATES MT20	
		GRIP 197/144	
		Weight: 164 lb FT = 10%	

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
6-9: 2x4 SPF 2100F 1.8E, 1-5: 2x8 SP DSS
BOT CHORD 2x4 SPF No.2 *Except*
3-14,12-14: 2x4 SPF 2100F 1.8E, 8-11: 2x3 SPF No.2
WEBS 2x3 SPF No.2 *Except*
9-10,17-19,18-20: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 10=0-3-8, 2=0-3-8
Max Horz 2=315(LC 5)
Max Uplift 10=255(LC 5), 2=210(LC 8)
Max Grav 10=1557(LC 2), 2=1607(LC 2)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-899/39, 3-4=-3678/455, 4-6=-2413/318, 6-7=-2128/317, 7-8=-1540/290,
8-9=-1537/293, 9-10=-1429/304
BOT CHORD 3-15=-551/3481, 13-15=-550/3480, 12-13=-384/1916, 8-12=-505/218
WEBS 4-15=0/264, 4-13=-1475/389, 6-13=-2/619, 7-13=-69/360, 7-12=-641/120,
9-12=-339/1952

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=255, 2=210.
- 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.



December 11,2020

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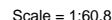


16023 Swingley Ridge Rd
Chesterfield, MO 63017

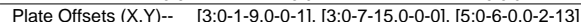
143967002

Job Reference (optional)

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:44 2020 Page 1
ID: e13htihC3uccFh1ifG0EcZUTUF-C AJSE ?aw2BblYlfHDPXOOGtb9?OpUT4ToTmvA4vP



1-0-0

Weight: 163 lb FT = 10%

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

(size) 10=0-3-8, 2=0-3-8
Max Horz 2=258(LC 5)
Max Uplift 10=-264(LC 5), 2=-184(LC 4)
Max Grav 10=1486(LC 1), 2=1561(LC 1)

TOP CHORD 2-3=-768/59, 3-4=-4023/473, 4-5=-2765/405, 5-6=-2508/443, 6-8=-2507/443,
8-9=-1932/381, 9-10=-1407/314

BOT CHORD 3-16=-646/3861, 14-16=-644/3859, 13-14=-460/2478, 12-13=-415/1933, 8-12=-1001/289

WEBS 4-14=-1461/339, 5-14=-26/576, 6-13=-409/173, 8-13=-94/737, 9-12=-433/2248

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=264, 2=184.
- 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	143967003
210383	B14	Half Hip Girder	1	2	Job Reference (optional)	

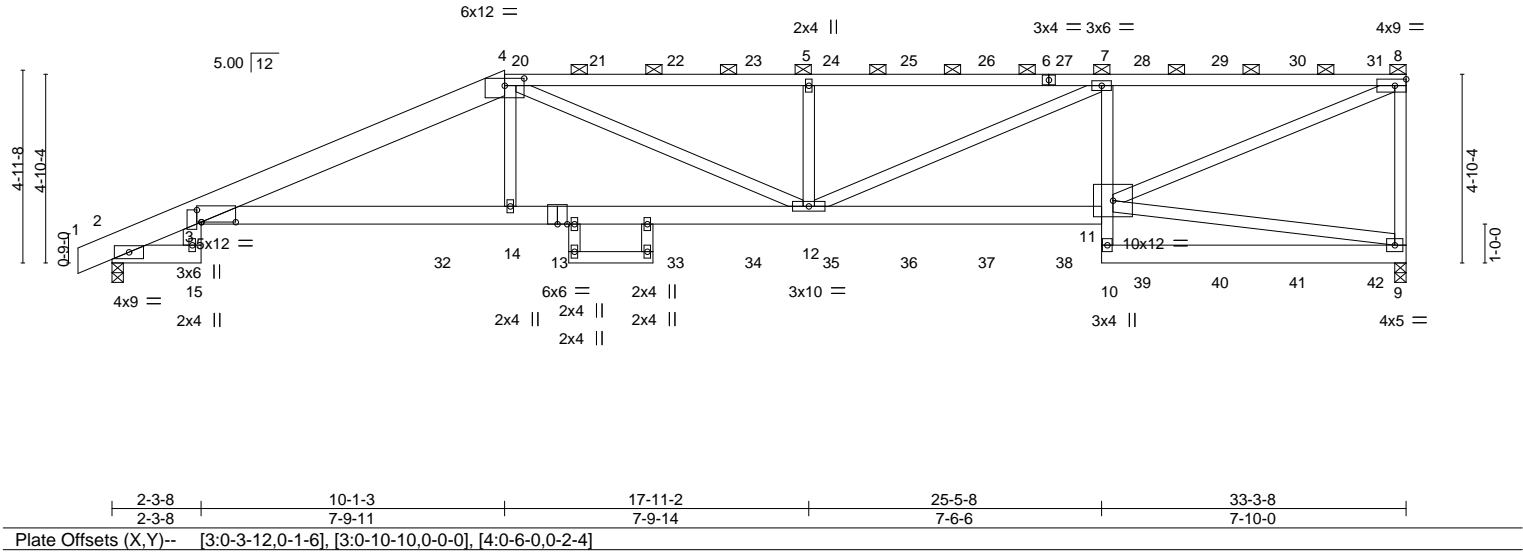
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:46 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-9NH4tw0F6Xlv_vSxs4JhUyTkYhJTKPnxOyvXfyA4vN

0-10-8	2-3-8	10-1-3	17-11-2	25-5-8	33-3-8
0-10-8	2-3-8	7-9-11	7-9-14	7-6-6	7-10-0

Scale = 1:59.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.39	3-14	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.70	3-14	>569		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.71	Horz(CT)	0.36	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.32	3-14	>999	Weight: 393 lb	FT = 10%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF 2100F 1.8E *Except*	TOP CHORD Structural wood sheathing directly applied or 5-0-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-5-9 max.): 4-8.
1-4: 2x8 SP DSS	
BOT CHORD 2x6 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
7-10,16-17: 2x4 SPF No.2	
WEBS 2x4 SPF No.2 *Except*	
3-15: 2x6 SPF No.2	

REACTIONS.	(size) 9=0-3-8, 2=0-3-8
	Max Horz 2=153(LC 5)
	Max Uplift 9=510(LC 5), 2=441(LC 8)
	Max Grav 9=2912(LC 1), 2=2734(LC 1)
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1615/257, 3-4=-6793/1252, 4-5=-6988/1309, 5-7=-6986/1310, 7-8=-5366/1032, 8-9=-2718/608
BOT CHORD	3-14=-1282/6435, 12-14=-1285/6473, 11-12=-1059/5414, 10-11=0/298, 7-11=-1695/477
WEBS	3-15=-85/518, 4-14=-136/980, 4-12=-112/664, 5-12=-818/247, 7-12=-333/1736, 8-11=-1114/5757

- NOTES-**
- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
 - 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 4) Provide adequate drainage to prevent water ponding.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=510, 2=441.
 - 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.



December 11, 2020

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2
210383	B14	Half Hip Girder	1	2	I43967003
Wheeler Lumber, Waverly, KS - 66871,					Job Reference (optional)

NOTES-

- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 115 lb down and 81 lb up at 10-5-7, 111 lb down and 63 lb up at 12-5-7, 111 lb down and 63 lb up at 14-5-7, 111 lb down and 63 lb up at 16-5-7, 111 lb down and 63 lb up at 18-5-7, 111 lb down and 63 lb up at 20-5-7, 111 lb down and 63 lb up at 22-5-7, 111 lb down and 63 lb up at 24-5-7, 124 lb down and 94 lb up at 26-5-7, 124 lb down and 94 lb up at 28-5-7, and 124 lb down and 94 lb up at 30-5-7, and 129 lb down and 91 lb up at 32-5-7 on top chord, and 726 lb down and 270 lb up at 8-5-7, 82 lb down at 10-5-7, 80 lb down and 34 lb up at 14-5-7, 80 lb down and 34 lb up at 16-5-7, 80 lb down and 34 lb up at 18-5-7, 80 lb down and 34 lb up at 20-5-7, 80 lb down and 34 lb up at 22-5-7, 80 lb down and 34 lb up at 24-5-7, 71 lb down at 26-5-7, 71 lb down at 28-5-7, and 71 lb down at 30-5-7, and 77 lb down at 32-5-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) Filler 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: 1-4=-70, 4-8=-70, 2-15=-20, 3-11=-20, 9-10=-20
- Concentrated Loads (lb)
Vert: 14=-69(B) 20=-102(B) 21=-81(B) 22=-81(B) 23=-81(B) 24=-81(B) 25=-81(B) 26=-81(B) 27=-81(B) 28=-114(B) 29=-114(B) 30=-114(B) 31=-125(B) 32=-726(B) 33=-80(B) 34=-80(B) 35=-80(B) 36=-80(B) 37=-80(B) 38=-80(B) 39=-50(B) 40=-50(B) 41=-50(B) 42=-53(B)

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967004
210383	C1	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

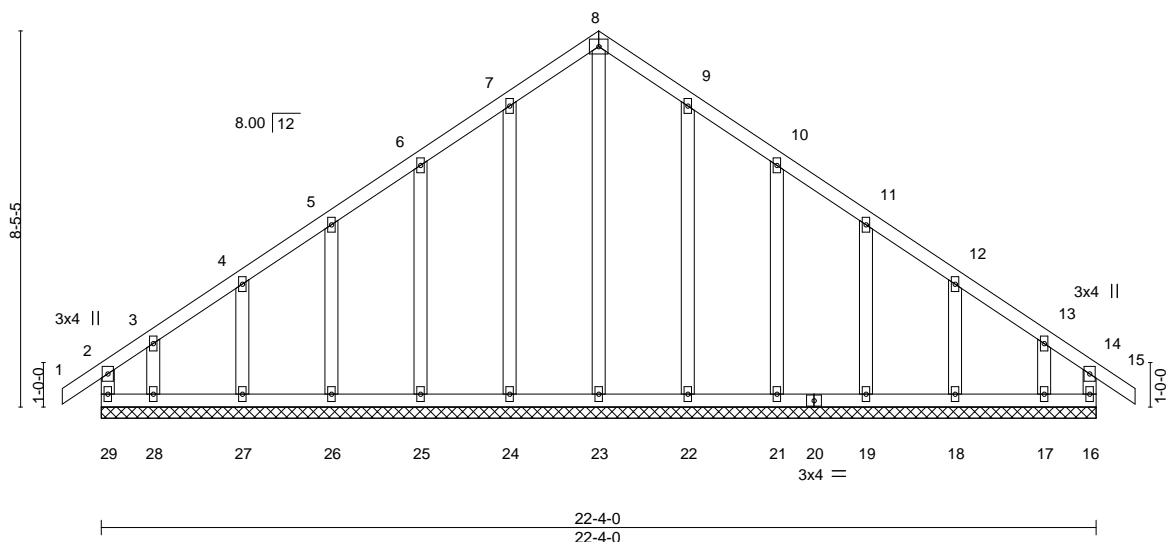
8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:56 2020 Page 1

ID:ell3htjhC3ucpFh1fG0EcZUTUF-slurZL8WlcZUBRDsSAV1u3tdcjppzQFEyNRu4yA4vD

-0-10-8 11-2-0 22-4-0 23-2-8
0-10-8 11-2-0 11-2-0 0-10-8

4x5 =

Scale = 1:51.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	15	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	15	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.22	Horz(CT)	0.00	16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 114 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 22-4-0.

(lb) - Max Horz 29=239(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 16, 24, 25, 26, 27, 22, 21, 19, 18 except 29=151(LC 4), 28=163(LC 8), 17=146(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 29, 16, 23, 24, 25, 26, 27, 28, 22, 21, 19, 18, 17

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 2'-0" oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 24, 25, 26, 27, 22, 21, 19, 18 except (jt=lb) 29=151, 28=163, 17=146.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967005
210383	C2	Common	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:57 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-KUSEBh88WvhLobo20t0GRHQeV6_QYOUOTc6_QWY4vC

0-10-8 5-8-4 11-2-0 16-7-12 22-4-0 23-2-8
0-10-8 5-8-4 5-5-12 5-5-12 5-8-4 0-10-8

4x9 =

Scale = 1:50.7

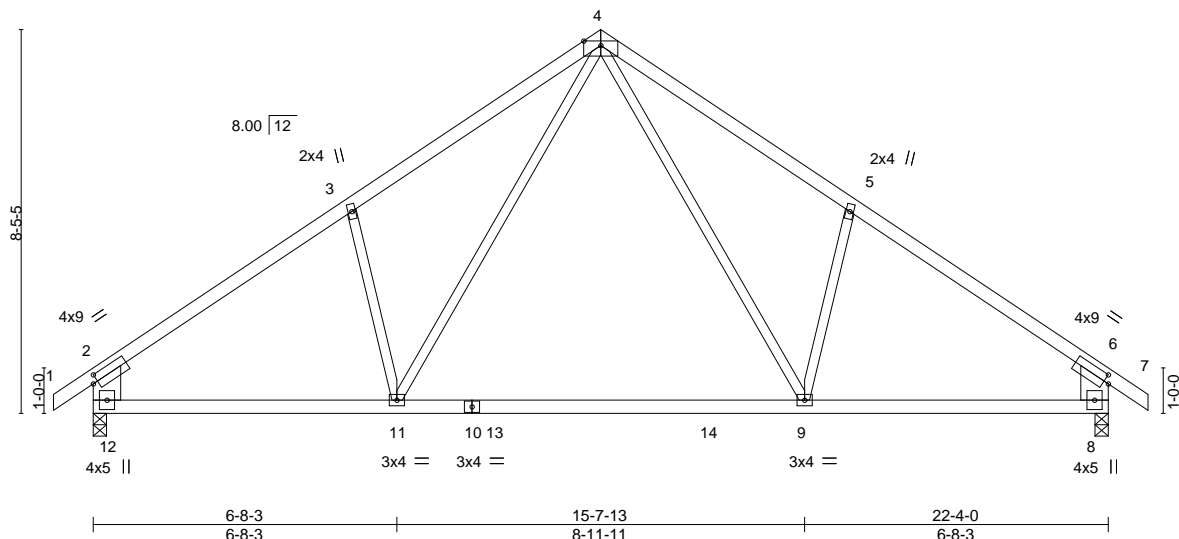


Plate Offsets (X, Y)--	[2:0-1-5,0-2-0], [6:0-1-5,0-2-0]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.40 9-11	>653	360
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.66 9-11	>396	240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.36	Horz(CT)	0.03 8	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 9-11	>999	240
						Weight: 85 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,6-8: 2x8 SP DSS

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 12=0-3-8, 8=0-3-8
Max Horz 12=-243(LC 6)
Max Uplift 12=-136(LC 8), 8=-136(LC 9)
Max Grav 12=1153(LC 15), 8=1153(LC 16)

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

TOP CHORD 2-3=-1340/149, 3-4=-1232/275, 4-5=-1232/275, 5-6=-1340/149, 2-12=-1038/167, 6-8=-1038/167
BOT CHORD 11-12=-139/1127, 9-11=0/787, 8-9=-27/994
WEBS 4-9=-170/597, 5-9=-255/254, 4-11=-170/597, 3-11=-255/254

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=136, 8=136.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	
210383	C4	Roof Special	1	1		I43967007
Job Reference (optional)						

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:58:59 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-Gta_cNAP2Xx32vxR7I2kWiVz5wIQ0Ehwwb5VPyA4vA

0-10-8	6-3-12	14-3-0	21-7-11	28-6-0
0-10-8	6-3-12	7-11-4	7-4-11	6-10-5

6x6 =

Scale = 1:66.3

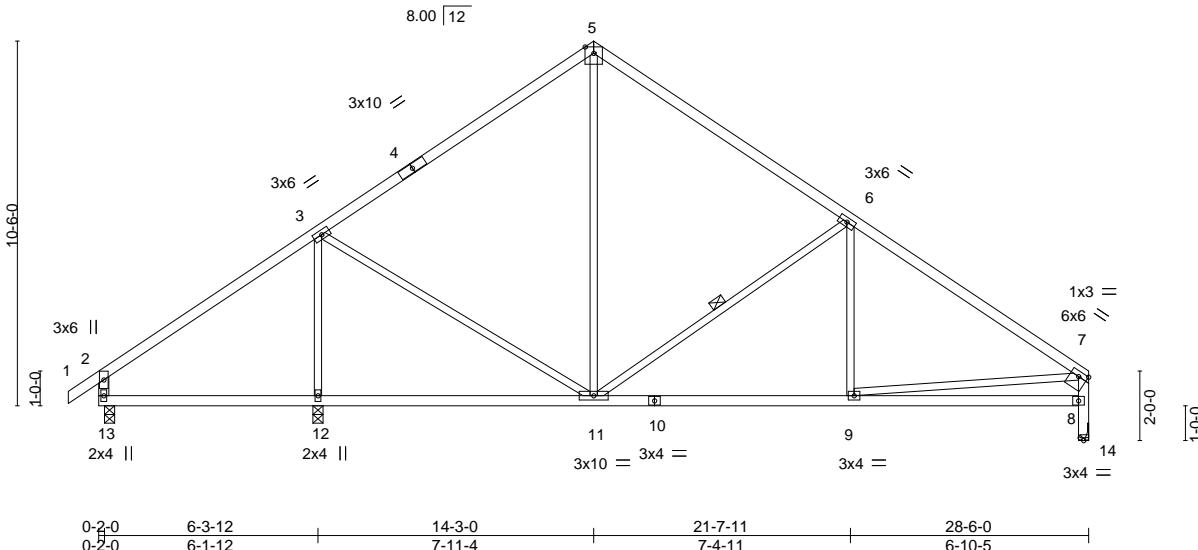


Plate Offsets (X,Y)-- [7:Edge,0-1-12], [14:0-1-4,0-1-0]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl
TCLL 25.0	Plate Grip DOL	1.15	TC 0.78	Vert(LL)	-0.06 11-12	>999 360
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.13 11-12	>999 240
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.01 14	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 9-11	>999 240
					PLATES	GRIP
					MT20	197/144
					Weight: 111 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-3-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-11

REACTIONS.

(size) 13=0-3-8, 12=0-3-8, 14=Mechanical
Max Horz 13=320(LC 7)
Max Uplift 13=-120(LC 8), 12=-59(LC 8), 14=-134(LC 9)
Max Grav 13=373(LC 21), 12=1240(LC 1), 14=997(LC 1)

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

TOP CHORD 3-5=-805/231, 5-6=-793/226, 6-7=-1277/188, 2-13=-326/153, 8-14=-997/134, 7-8=-933/169
BOT CHORD 12-13=-267/317, 11-12=-267/317, 9-11=-86/970
WEBS 3-12=-1083/147, 3-11=-14/521, 5-11=-73/333, 6-11=-584/261, 7-9=-41/742

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 13=120, 14=134.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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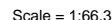
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:00 2020 Page 1
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BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 4-2-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-9

REACTIONS. (size) 11=0-3-8, 10=0-3-8, 12=Mechanical
Max Horz 11=308(LC 7)
Max Uplift 11=-80(LC 8), 10=-83(LC 8), 12=-130(LC 9)
Max Grav 11=302(LC 21), 10=1254(LC 1), 12=997(LC 1)

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

TOP CHORD 2-3=-805/225, 3-4=-792/219, 4-5=-1276/183, 1-11=-252/113, 6-12=-997/130,
5-6=-932/165

BOT CHORD 10-11=-256/316, 9-10=-256/316, 7-9=-82/969

WEBS 2-10=-1096/171, 2-9=-16/516, 3-9=-67/336, 4-9=-584/261, 5-7=-35/742

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 10 except (jt=lb) 12=130.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020



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

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

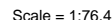


16023 Swingley Ridge Rd
Chesterfield, MO 63017

143967009

Job Reference (optional)

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:02 2020 Page 1
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LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-19: 2x6 SPF No.2. 9-20: 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.): 3-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-16, 12-14.
WEBS	1 Row at midpt 8-12

REACTIONS. All bearings 0-3-8 except (jt=length) 20=Mechanical.
 (lb) - Max Horz 19=320(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) except 19=-152(LC 8), 16=-241(LC 4), 14=-260(LC 29),
 20=-126(LC 30)
 Max Grav All reactions 250 lb or less at joint(s) except 19=600(LC 21), 16=1126(LC 21), 14=1205(LC 1),
 20=969(LC 1)

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

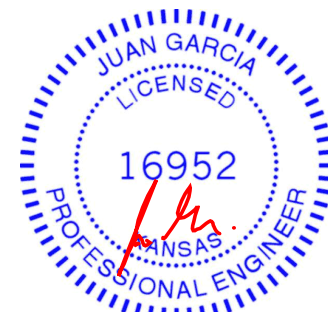
TOP CHORD 2-3=-533/155, 3-4=-556/164, 4-5=-217/530, 6-7=-757/171, 7-8=-747/179,
8-9=-1234/176, 2-19=-470/138, 10-20=-969/126, 9-10=-905/161

BOT CHORD 18-19=-340/500, 17-18=-343/502, 16-17=-328/498, 14-16=-262/184, 11-12=-76/934

WEBS 4-16=-1202/443, 5-16=-515/188, 6-14=-1156/265, 6-12=-6/595, 7-12=-57/290,
8-12=-583/262, 9-11=0/707

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 152 lb uplift at joint 19, 241 lb uplift at joint 16, 260 lb uplift at joint 14 and 126 lb uplift at joint 20.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 93 lb down and 84 lb up at 2-4-6, 82 lb down and 69 lb up at 4-0-0, 82 lb down and 69 lb up at 6-0-0, and 82 lb down and 69 lb up at 8-0-0, and 82 lb down and 69 lb up at 10-0-0 on top chord, and 29 lb down at 2-4-6, 24 lb down at 4-0-0, 24 lb down at 6-0-0, and 24 lb down at 8-0-0, and 24 lb down at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



December 11, 2020

LOAD CASE(S) Standard



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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 60 W2
210383	D1	Roof Special Girder	1	1	I43967009
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-7=-70, 7-9=-70, 10-19=-20
- Concentrated Loads (lb)
 - Vert: 3=-18(F) 18=-16(F) 4=-32(F) 21=-32(F) 22=-32(F) 23=-32(F) 24=-17(F) 25=-17(F) 26=-17(F) 27=-17(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967010
210383	D2	Roof Special	1	1		

Wheeler Lumber, Waverly, KS - 66871,

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Job Reference (optional)

0-10-8	3-10-6	9-7-6	15-4-6	17-9-12	25-9-0	33-1-11	40-0-0
0-10-8	3-10-6	5-9-0	5-9-0	2-5-6	7-11-4	7-4-11	6-10-5

Scale = 1:76.4

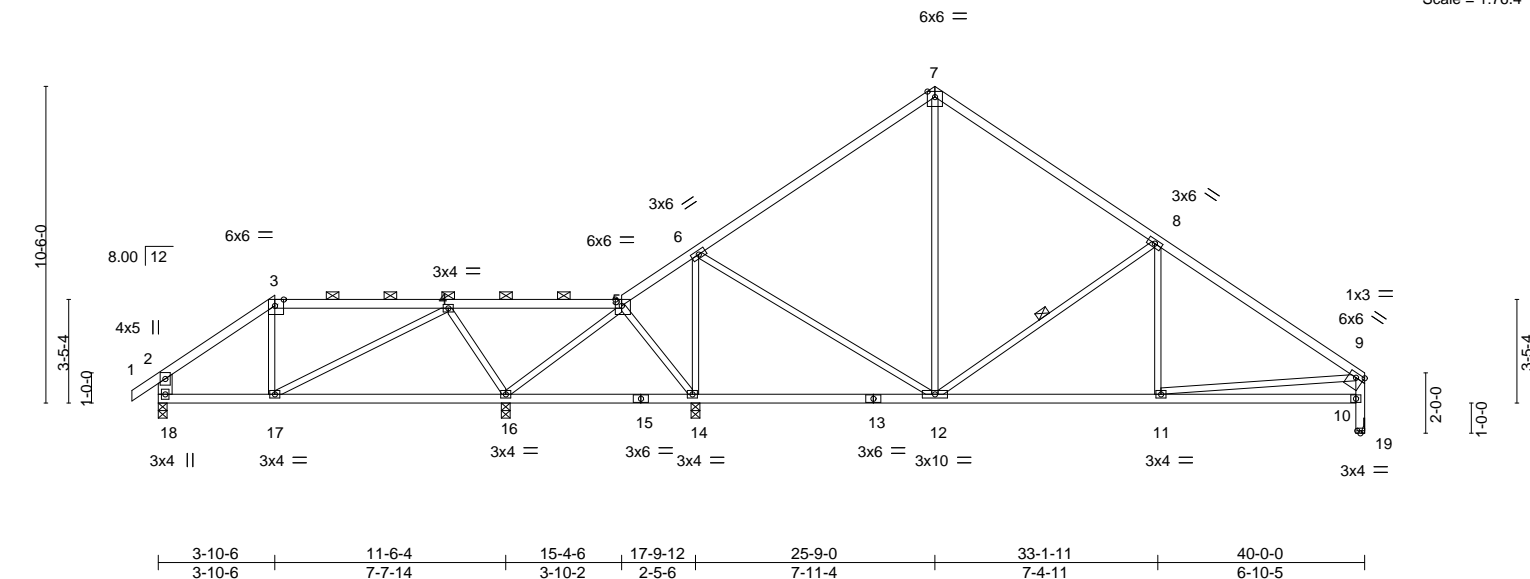


Plate Offsets (X,Y)--		[3:0-3-8,Edge], [5:0-2-8,Edge], [9:Edge,0-1-12], [19:0-1-4,0-1-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.08 16-17	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.17 16-17	>792	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.69	Horz(CT)	0.01 19	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.02 11-12	>999	240	Weight: 156 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-18: 2x6 SPF No.2, 9-19: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-5.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
 WEBS 1 Row at midpt 8-12

REACTIONS.

All bearings 0-3-8 except (jt=length) 19=Mechanical.

(lb) - Max Horz 18=258(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 18, 16, 14, 19

Max Grav All reactions 250 lb or less at joint(s) except 18=483(LC 19), 16=1021(LC 19), 14=1197(LC 1), 19=966(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-440/41, 3-4=-295/61, 4-5=0/376, 6-7=-752/117, 7-8=-742/96, 8-9=-1229/51,
 2-18=-437/54, 10-19=-966/16, 9-10=-902/52

BOT CHORD 17-18=-172/378, 11-12=0/930

WEBS 4-17=0/328, 4-16=-740/109, 5-16=-374/73, 6-14=-1173/104, 6-12=0/605, 7-12=-16/285,
 8-12=-567/137, 9-11=0/703

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) 18, 16, 14, 19.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job Reference (optional)

Plate Offsets (X,Y)-- [3:0-3-8,Edge], [5:0-4-0,0-2-12], [8:Edge,0-1-12], [18:0-1-4,0-1-0]

LUMBER-

BRACING-

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

REACTIONS. All bearings 0-3-8 except (jt=length) 18=Mechanical.
(lb) - Max Horz 17=257(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 17, 15, 13, 18
Max Grav All reactions 250 lb or less at joint(s) except 17=498(LC 19), 15=1086(LC 1), 13=1067(LC 1), 18=998(LC 1)

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

TOP CHORD 2-3=-417/83, 5-6=-821/122, 6-7=-801/107, 7-8=-1277/60, 2-17=-447/90, 9-18=-998/23,
8-9=-934/59

BOT CHORD 16-17=-193/371, 15-16=-195/368, 10-11=0/969

WEBS 3-15=-529/0, 4-15=-436/123, 5-15=-372/65, 5-11=0/723, 6-11=-14/300, 7-11=-552/133,
8-16=0/739, 5-13=-945/136

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=16.0 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) 17, 15, 13, 18.
- 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.



December 11, 2020



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967012
210383	D4	ROOF SPECIAL	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:07 2020 Page 1

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Job Reference (optional)

0-10-8	6-10-6	11-6-8	17-9-8	18-4-6	25-9-0	33-1-11	40-0-0
0-10-8	6-10-6	4-8-2	6-3-0	0-6-14	7-4-10	7-4-11	6-10-5

Scale = 1:75.8

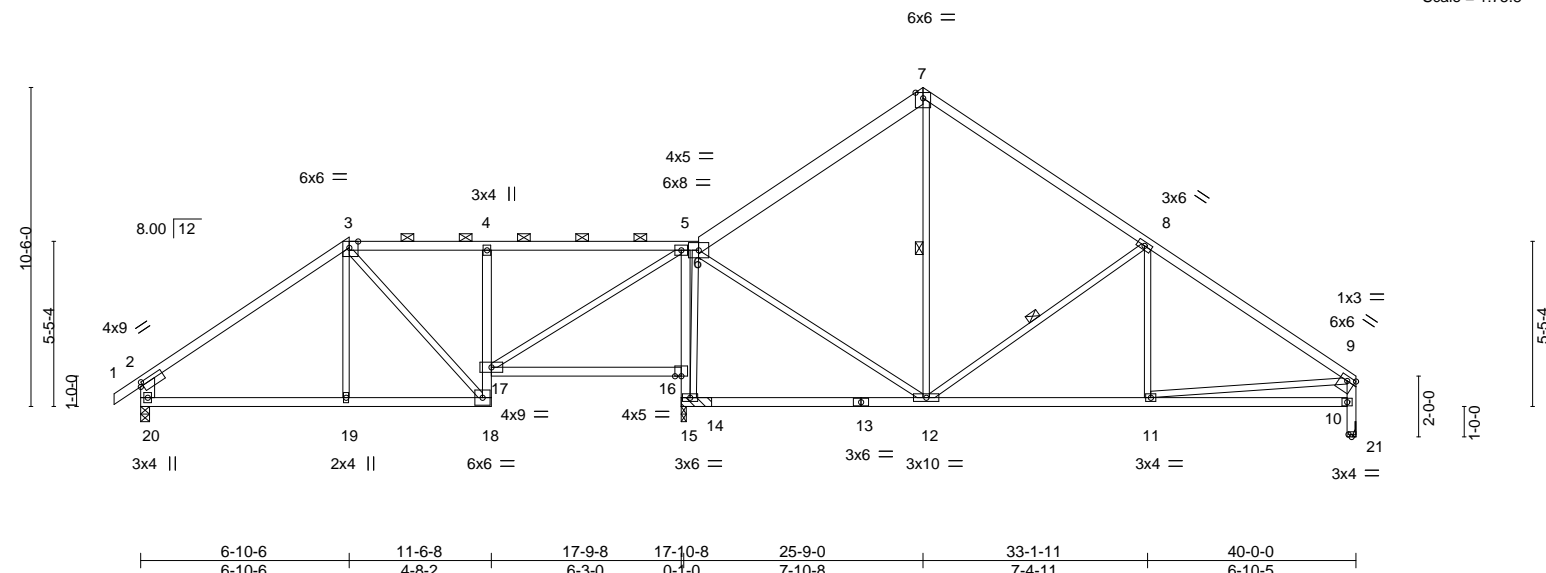


Plate Offsets (X,Y)--		[2:0-1-1,0-1-8], [3:0-3-8,Edge], [9:Edge,0-1-12], [21:0-1-4,0-1-0]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 10.0	Lumber DOL	1.15
BCLL 0.0 *	Rep Stress Incr	YES
BCDL 10.0	Code IRC2018/TPI2014	
CSI.	DEFL.	in (loc) l/defl L/d
TC 0.67	Vert(LL)	-0.08 12-15 >999 360
BC 0.66	Vert(CT)	-0.18 12-15 >999 240
WB 0.48	Horz(CT)	0.04 21 n/a n/a
Matrix-S	Wind(LL)	0.04 18-19 >999 240
PLATES	GRIP	
MT20	197/144	
Weight: 172 lb		FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
6-7: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
13-15: 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
2-20: 2x6 SPF No.2, 9-21: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 20=0-3-8, 15=(0-2-0 + bearing block) (req. 0-3-1), 21=Mechanical
Max Horz 20=257(LC 7)
Max Uplift 20=48(LC 8), 15=21(LC 8), 21=44(LC 9)
Max Grav 20=778(LC 19), 15=1966(LC 1), 21=903(LC 1)

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

TOP CHORD 2-3=-782/74, 3-4=-471/131, 4-5=-556/110, 5-6=-84/326, 6-7=-651/163, 7-8=-644/142,
8-9=-1132/94, 2-20=-700/95, 10-21=-903/44, 9-10=-838/80
BOT CHORD 19-20=-101/536, 18-19=-102/534, 4-17=-387/119, 16-17=-339/7, 15-16=-1202/63,
5-16=-1106/106, 11-12=-17/849
WEBS 5-17=-45/1048, 6-15=-740/70, 6-12=0/782, 8-12=-561/131, 9-11=0/626

NOTES-

- 2x4 SPF 2400F 2.0E bearing block 12" long at jt. 15 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) 20, 15, 21.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967013
210383	D5	ROOF SPECIAL	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:08 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-VbcOUSH2wI4ndH8A9hirNbNX5YnOdCf0_pH3JNyA4v1

Job Reference (optional)

-9-10-8	5-4-5	8-4-6	11-6-8	17-9-8	19-10-6	25-9-0	33-1-11	40-0-0
0-10-8	5-4-5	3-0-1	3-2-2	6-3-0	2-0-14	5-10-10	7-4-11	6-10-5

Scale = 1:75.8

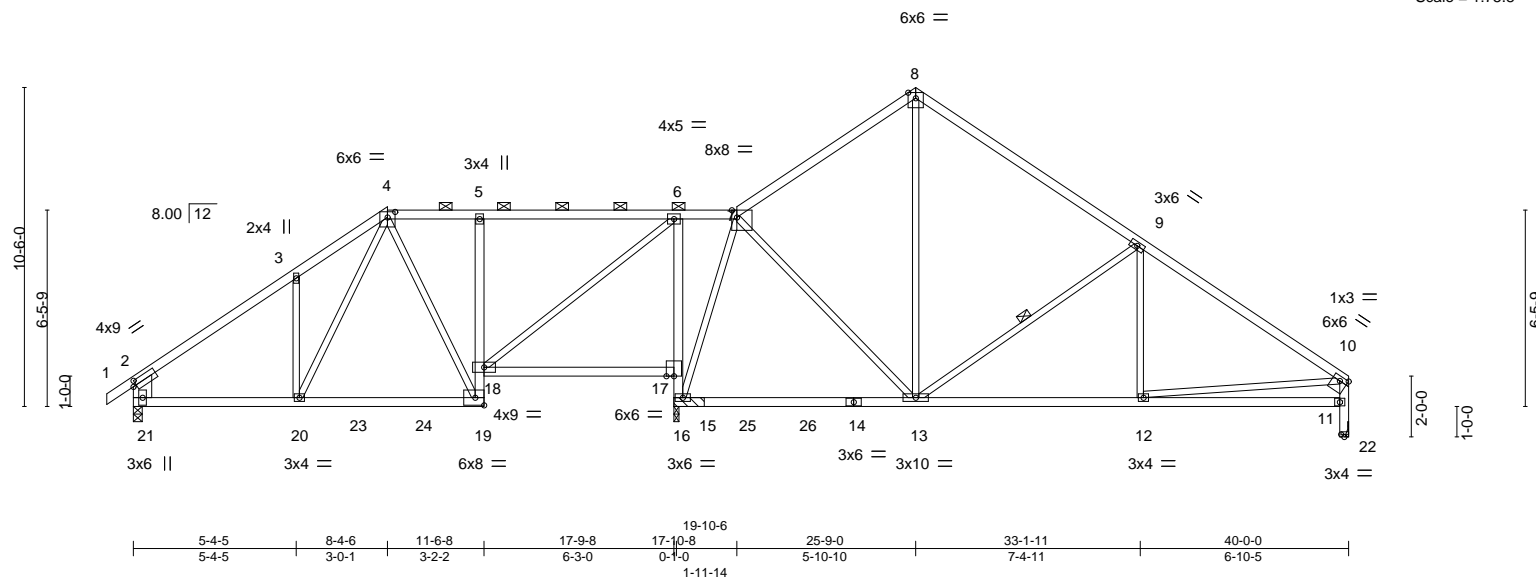


Plate Offsets (X,Y)-- [2:0-1-5,0-2-0], [4:0-3-0,0-2-3], [7:0-2-0,Edge], [10:Edge,0-1-12], [22:0-1-4,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69	Vert(LL)	-0.12 13-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.21 13-16	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.97	Horz(CT)	-0.03 22	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 18	>999	240	Weight: 175 lb	FT = 10%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
14-16: 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
2-21: 2x8 SP DSS, 10-22: 2x4 SPF No.2

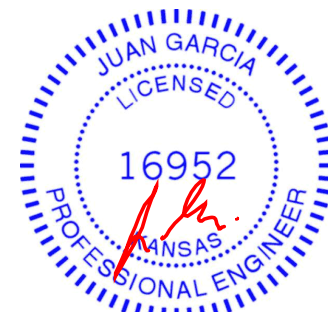
BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD Rigid ceiling directly applied or 4-6-10 oc bracing.
WEBS 1 Row at midpt 9-13

REACTIONS. (size) 21=0-3-8, 16=(0-2-0 + bearing block) (req. 0-3-5), 22=Mechanical
Max Horz 21=258(LC 7)
Max Uplift 21=-47(LC 8), 16=-22(LC 8), 22=-50(LC 9)
Max Grav 21=788(LC 21), 16=2096(LC 2), 22=1019(LC 14)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-842/67, 3-4=-725/162, 4-5=-441/123, 5-6=-481/112, 6-7=-81/392, 7-8=-701/177,
8-9=-705/152, 9-10=-1243/103, 2-21=-685/77, 11-22=-1019/50, 10-11=-908/85
BOT CHORD 20-21=-108/682, 19-20=-85/496, 18-19=-26/319, 5-18=-361/100, 17-18=-334/8,
16-17=-1073/56, 6-17=-954/94, 12-13=-25/906
WEBS 6-18=-45/997, 7-16=-963/10, 7-13=0/653, 8-13=-86/276, 9-13=-654/134, 10-12=0/686,
4-20=-79/429

NOTES-

- 2x4 SPF 2400F 2.0E bearing block 12" long at jt. 16 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) 21, 16, 22.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	143967014
210383	D6	ROOF SPECIAL	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:10 2020 Page 1

ID:ell3htjhC3ucpFh1fG0EcZUTUF-S_k8v7IIsvKVsbHYG6IJS0StcMNz5CLJS7mAOGyA4v?

0-10-8	5-4-5	9-10-6	11-6-8	17-9-8	21-4-6	25-9-0	33-1-11	40-0-0
0-10-8	5-4-5	4-6-0	1-8-2	6-3-0	3-6-14	4-4-10	7-4-11	6-10-5

Scale = 1:75.8

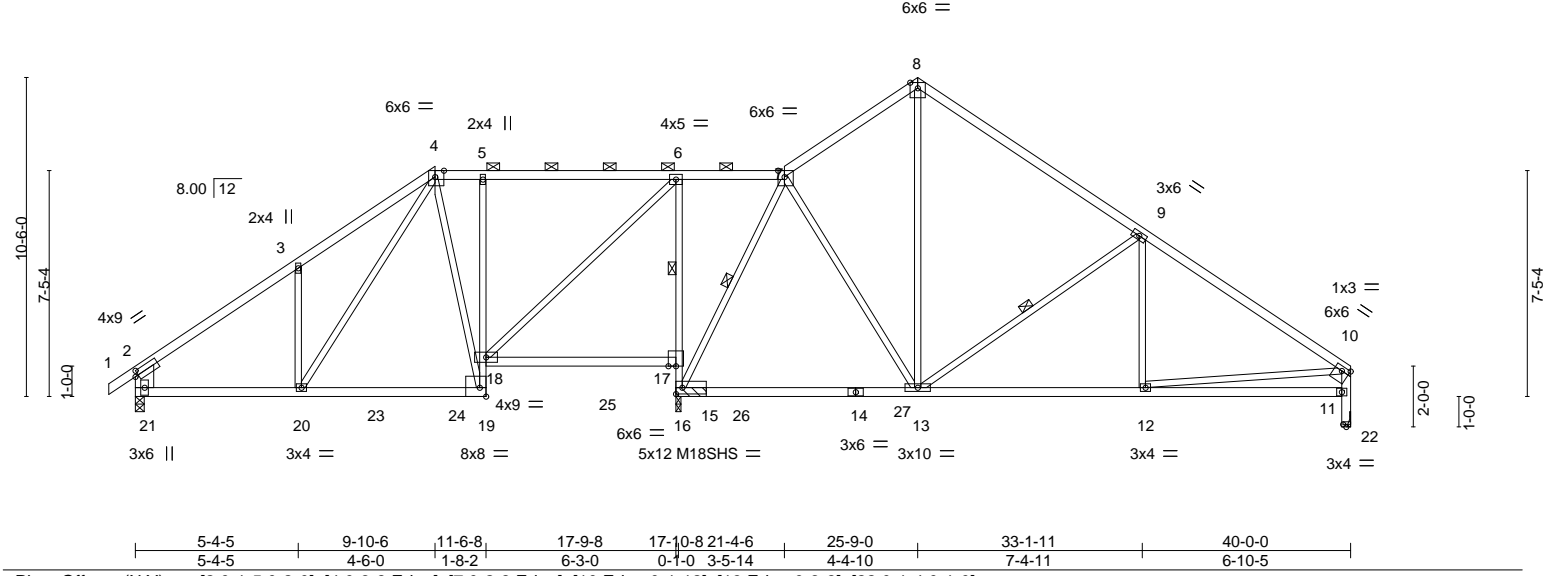


Plate Offsets (X,Y)--		[2:0-1-5,0-2-0], [4:0-3-8,Edge], [7:0-2-8,Edge], [10:Edge,0-1-12], [19:Edge,0-3-8], [22:0-1-4,0-1-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.69		Vert(LL) -0.16 13-16 >999 360		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.98		Vert(CT) -0.26 13-16 >999 240		M18SHS		197/144	
BCLL	0.0 *	Rep Stress Incr YES		WB 0.58		Horz(CT) -0.04 22 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL) 0.04 17-18 >999 240		Weight: 176 lb		FT = 10%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD 2x4 SPF No.2 *Except* 5-19,6-16: 2x3 SPF No.2, 14-16: 2x4 SPF 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18 2-2-0 oc bracing: 16-17.
WEBS 2x3 SPF No.2 *Except* 2-21: 2x8 SP DSS, 10-22: 2x4 SPF No.2	WEBS 1 Row at midpt 6-17 1 Row at midpt 7-16, 9-13

REACTIONS.	(size) 21=0-3-8, 16=(0-2-0 + bearing block) (req. 0-3-6), 22=Mechanical Max Horz 21=258(LC 7) Max Uplift 21=52(LC 8), 16=14(LC 8), 22=60(LC 9) Max Grav 21=790(LC 14), 16=2153(LC 2), 22=1029(LC 14)
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-857/74, 3-4=-769/190, 4-5=-390/133, 5-6=-404/128, 6-7=-89/380, 7-8=-672/197, 8-9=-724/168, 9-10=-1258/118, 2-21=-675/80, 11-22=-1029/60, 10-11=-917/96
BOT CHORD	20-21=-99/693, 19-20=-65/415, 18-19=-40/400, 5-18=-326/117, 17-18=-294/9, 16-17=-1142/76, 6-17=-984/113, 12-13=-38/919
WEBS	4-19=-252/74, 6-18=-43/935, 7-16=-981/0, 3-20=-279/156, 4-20=-98/523, 7-13=0/552, 8-13=-111/326, 9-13=-651/133, 10-12=0/697

- NOTES-**
- 1) 2x4 SPF 2400F 2.0E bearing block 12" long at jt. 16 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
 - 2) Unbalanced roof live loads have been considered for this design.
 - 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 4) Provide adequate drainage to prevent water ponding.
 - 5) All plates are MT20 plates unless otherwise indicated.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 8) Refer to girder(s) for truss to truss connections.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 21, 16, 22.
 - 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020

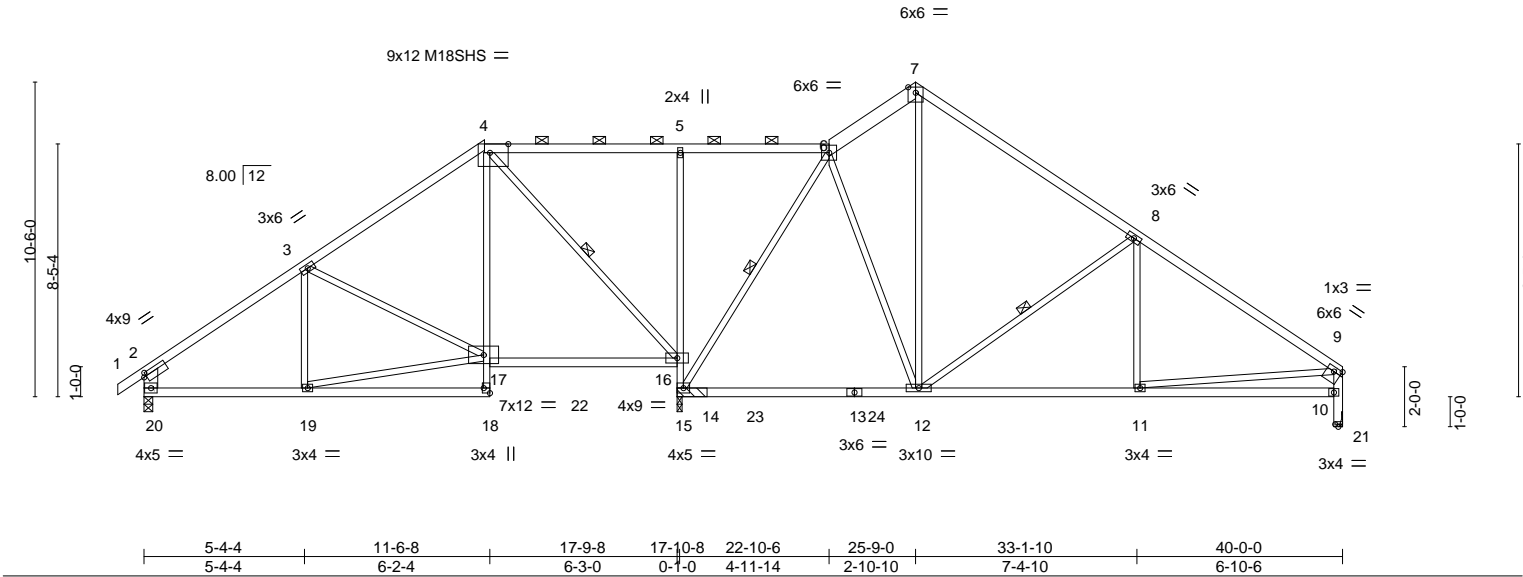
Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	143967015
210383	D7	ROOF SPECIAL	1	1	Job Reference (optional)	

Wheeler Lumber,
Waverly, KS - 66871,
8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:12 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-ONSvKpKZ_WaD6vRxOXnnXRYDX97JZ3OcvRFHR8yA4uz

-0-10-8	5-4-4	11-4-6	17-9-8	22-10-6	25-9-0	33-1-10	40-0-0
0-10-8	5-4-4	6-0-1	6-5-2	5-0-14	2-10-10	7-4-10	6-10-6

Scale = 1:76.9



Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	
210383	D8	ROOF SPECIAL	1	1		I43967016
Job Reference (optional)						

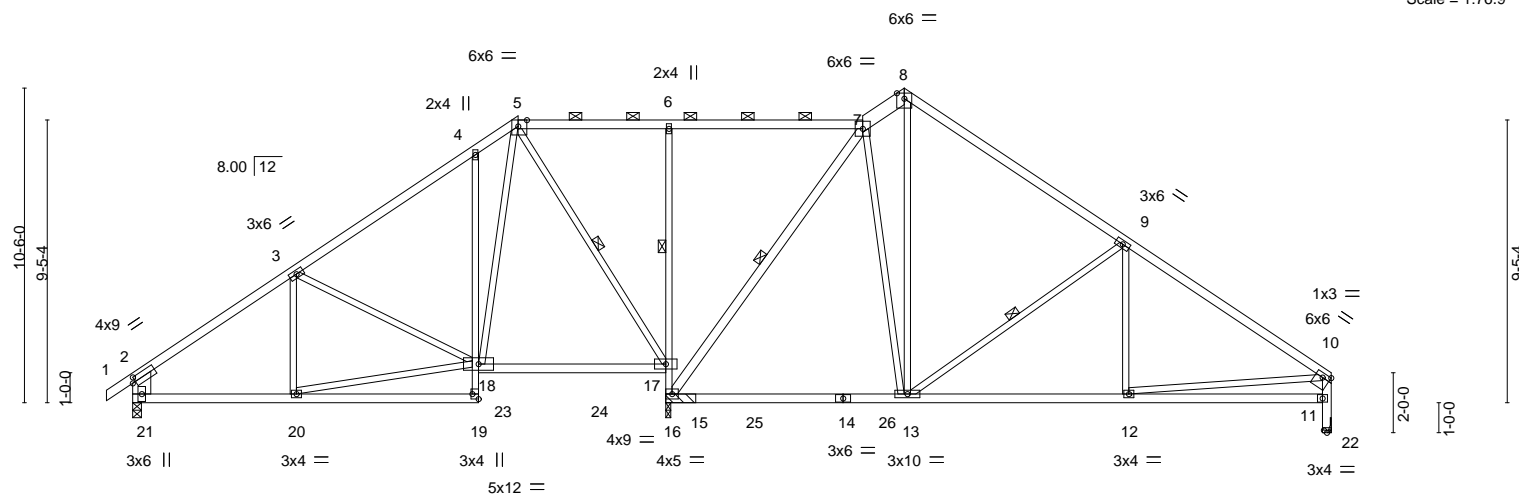
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:14 2020 Page 1

ID:ell3htjhC3ucpFh1fG0EcZUTUF-Kl_fIVLpW8qxLCbJVypFdsdZ4zod1?XuNikOW1yA4ux

-0-10-8	5-4-5	11-6-8	12-10-6	17-9-8	24-4-6	25-9-0	33-1-11	40-0-0
0-10-8	5-4-5	6-2-3	1-3-14	4-11-2	6-6-14	1-4-10	7-4-11	6-10-5

Scale = 1:76.9



5-4-5	11-6-8	12-10-6	17-9-8	17-10-8	24-4-6	25-9-0	33-1-11	40-0-0
5-4-5	6-2-3	1-3-14	4-11-2	0-1-0	6-5-14	1-4-10	7-4-11	6-10-5

Plate Offsets (X,Y)-- [2:0-1-5,0-2-0], [5:0-3-8,Edge], [10:Edge,0-1-12], [19:Edge,0-2-8], [22:0-1-4,0-1-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.17 13-16	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.27 13-16	>985	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.69	Horz(CT)	-0.06 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03 19-20	>999	240	Weight: 192 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
7-8: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-19,6-16: 2x3 SPF No.2, 14-16: 2x4 SPF 2400F 2.0E
WEBS 2x3 SPF No.2 *Except*
7-16,10-22: 2x4 SPF No.2, 2-21: 2x8 SP DSS

REACTIONS.

(size) 21=0-3-8, 16=(0-2-0 + bearing block) (req. 0-3-5), 22=Mechanical
Max Horz 21=257(LC 7)
Max Uplift 21=-58(LC 8), 16=-3(LC 8), 22=-61(LC 9)
Max Grav 21=809(LC 13), 16=2115(LC 2), 22=1045(LC 14)

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

TOP CHORD 2-3=-861/86, 3-4=-531/135, 4-5=-473/210, 7-8=-651/193, 8-9=-759/170,
9-10=-1280/118, 2-21=-693/84, 11-22=-1045/61, 10-11=-932/96
BOT CHORD 20-21=-111/742, 4-18=-360/128, 17-18=-66/267, 16-17=-1168/91, 6-17=-473/110,
13-16=0/389, 12-13=-37/936
WEBS 18-20=-110/734, 3-18=-362/84, 5-18=-108/898, 5-17=-831/37, 7-16=-1007/0,
8-13=-109/412, 9-13=-633/128, 10-12=0/708, 7-13=0/385

NOTES-

- 2x4 SPF 2400F 2.0E bearing block 12" long at jt. 16 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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) 21, 16, 22.
- This truss 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.

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-5 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 19-20
3-3-12 oc bracing: 16-17.
WEBS 1 Row at midpt 6-17
1 Row at midpt 5-17, 7-16, 9-13



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967017
210383	D9	HALF HIP GIRDER	1	3	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:15 2020 Page 1
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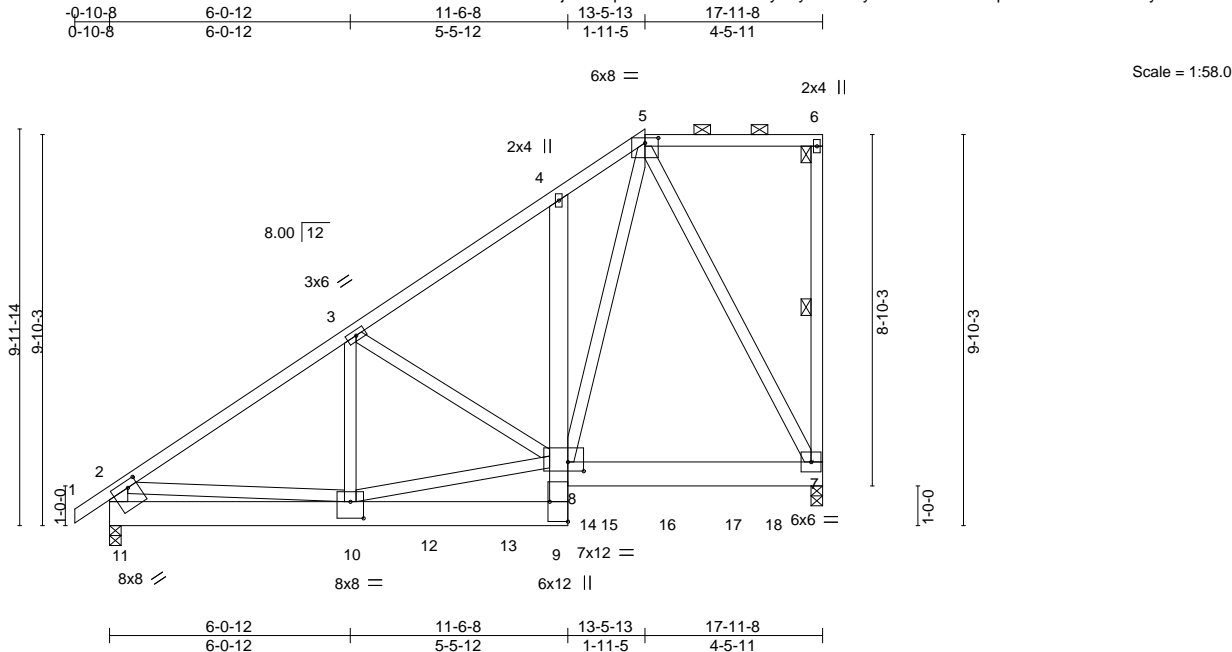


Plate Offsets (X,Y)--		[5:0-4-0,0-1-9], [8:0-4-12,0-2-12], [9:Edge,0-5-8], [10:0-4-0,0-5-0], [11:0-3-0,0-2-0]										
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.09	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.16	7-8	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.05	7-8	>999	240	Weight: 440 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP DSS *Except*
4-9: 2x6 SPF No.2
WEBS 2x4 SPF No.2 *Except*
2-11: 2x6 SPF No.2

BRACING-

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

REACTIONS. (size) 7=0-3-8 (req. 0-3-9), 11=0-3-8
Max Horz 11=300(LC 24)
Max Uplift 7=486(LC 5), 11=501(LC 8)
Max Grav 7=6788(LC 2), 11=5260(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7681/753, 3-4=-5215/431, 4-5=-5094/498, 2-11=-5050/510
BOT CHORD 10-11=-410/1573, 9-10=-174/1056, 8-9=-99/1976, 7-8=-268/2447
WEBS 3-10=-405/2466, 8-10=-568/5319, 3-8=-2457/450, 5-8=-663/7405, 5-7=-5312/465, 2-10=-426/4759

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 3 rows staggered at 0-4-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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.
- WARNING: Required bearing size at joint(s) 7 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=486, 11=501.
- This truss 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) 2943 lb down and 549 lb up at 6-0-13, 1467 lb down and 90 lb up at 8-0-0, 1534 lb down and 88 lb up at 10-0-0, 1567 lb down and 86 lb up at 12-0-0, and 1569 lb down and 83 lb up at 14-0-0, and 1575 lb down and 50 lb up at 16-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



December 11,2020

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2
210383	D9	HALF HIP GIRDER	1	3	I43967017

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:15 2020 Page 2
ID:elI3htjhC3ucpFh1ifG0EcZUTUF-oyY1yrMRHRyozMAW3fKU94ApMNBtmT92bPTx2TyA4uw

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, 9-11=-20, 7-8=-20
Concentrated Loads (lb)
Vert: 10=-2943(B) 12=-1467(B) 13=-1465(B) 14=-1465(B) 16=-1464(B) 18=-1464(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 60 W2	143967018
210383	E1	Hip Girder	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:18 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-DXDabsPKaMLNqqu5kouBnioHsaDCzsiUINibfoya4ut

Job Reference (optional)

0-10-8 5-6-0 10-6-0 15-6-0 21-0-0 21-10-8
0-10-8 5-6-0 5-0-0 5-0-0 5-6-0 0-10-8

Scale = 1:37.7

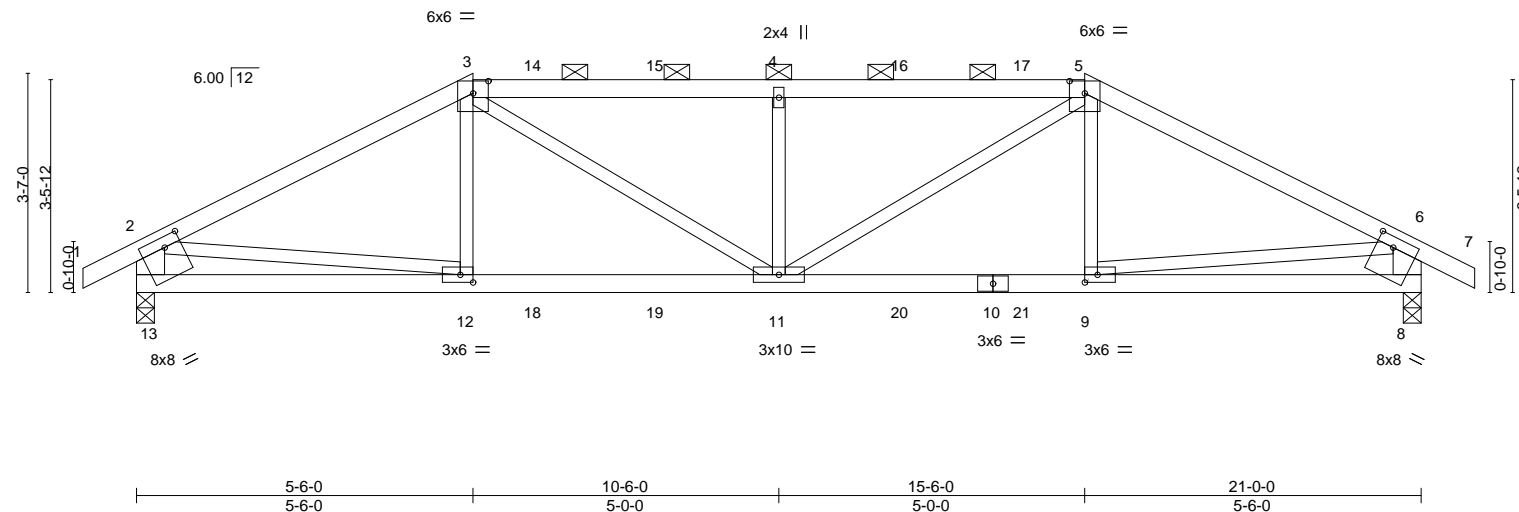


Plate Offsets (X,Y)-- [3:0-3-0,0-2-7], [5:0-3-0,0-2-7], [8:0-3-4,0-2-0], [9:0-2-8,0-1-8], [12:0-2-8,0-1-8], [13:0-3-4,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.09	11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.17	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.49	Horz(CT)	0.04	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.08	11	>999	240	Weight: 78 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,6-8: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 13=0-3-8, 8=0-3-8
Max Horz 13=65(LC 6)
Max Uplift 13=297(LC 8), 8=297(LC 9)
Max Grav 13=1406(LC 1), 8=1406(LC 1)

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

TOP CHORD 2-3=-2099/442, 3-4=-2363/520, 4-5=-2363/520, 5-6=-2099/442, 2-13=-1350/322, 6-8=-1350/322
BOT CHORD 12-13=-168/396, 11-12=-380/1793, 9-11=-338/1793, 8-9=-137/396
WEBS 3-11=-177/748, 4-11=-574/252, 5-11=-177/748, 2-12=-333/1429, 6-9=-336/1429

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=297, 8=297.
- This truss 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) 100 lb down and 63 lb up at 6-6-0, 100 lb down and 63 lb up at 8-6-0, 100 lb down and 63 lb up at 10-6-0, and 100 lb down and 63 lb up at 12-6-0, and 100 lb down and 63 lb up at 14-6-0 on top chord, and 234 lb down and 134 lb up at 5-6-0, 32 lb down at 6-6-0, 32 lb down at 8-6-0, 32 lb down at 10-6-0, 32 lb down at 12-6-0, and 32 lb down at 14-6-0, and 234 lb down and 134 lb up at 15-6-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



December 11, 2020

Continued on page 2

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

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ANSI/TPI 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 60 W2	I43967018
210383	E1	Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:19 2020 Page 2
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-hjnYoCPyKgTDRzTHIVPQKwKSb_YRiJyeW1R8BEyA4us

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-6=-70, 6-7=-70, 8-13=-20
Concentrated Loads (lb)
Vert: 12=-234(B) 11=-22(B) 4=-46(B) 9=-234(B) 14=-46(B) 15=-46(B) 16=-46(B) 17=-46(B) 18=-22(B) 19=-22(B) 20=-22(B) 21=-22(B)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	143967019
210383	E2	Hip	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:20 2020 Page 1

ID:elI3htjhC3ucpFh1ifG0EczUTUF-9vLw0YQa5_b4372TsDwfs7ta9OvwRsynhBijhyA4ur

Job Reference (optional)

0-10-8	3-5-5	8-2-0	12-10-0	17-6-11	21-0-0	21-10-8
0-10-8	3-5-5	4-8-10	4-8-0	4-8-10	3-5-5	0-10-8

Scale = 1:37.7

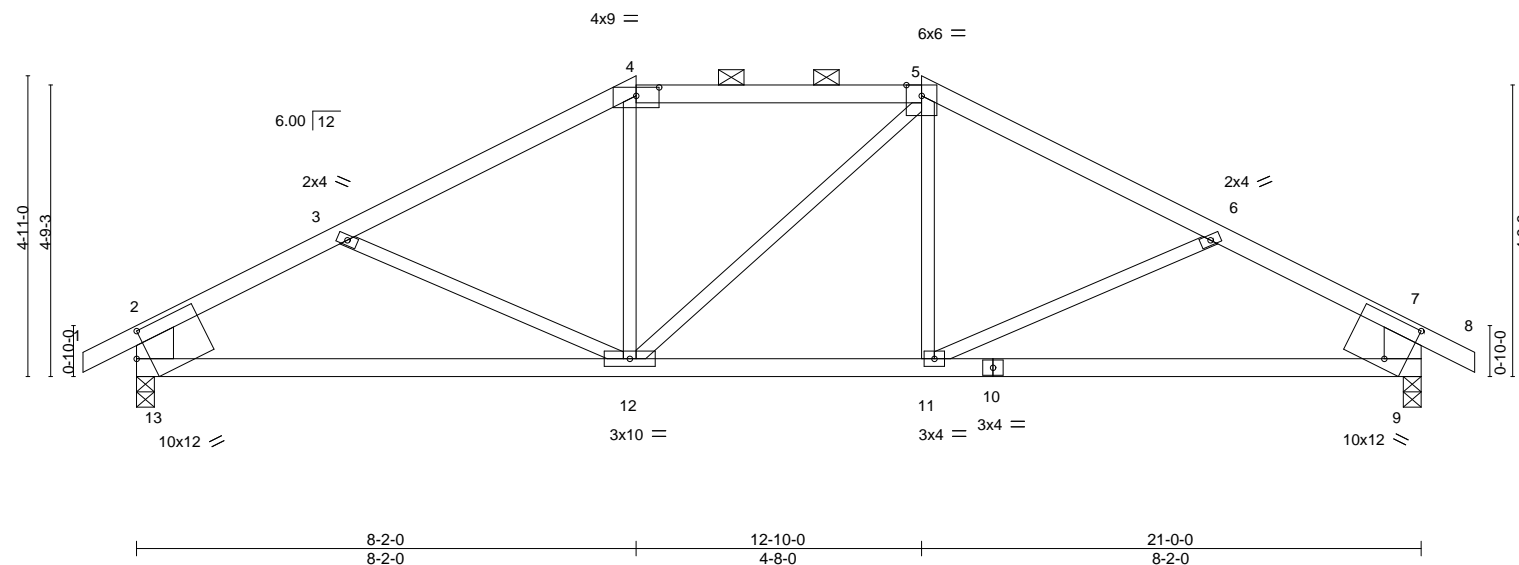


Plate Offsets (X,Y)--		[4:0-4-8,0-1-11], [9:0-4-1,0-8-2], [13:0-2-7,0-4-14]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.75	in (loc) l/defl L/d
TCDL 10.0	Plate Grip DOL 1.15	BC 0.49	Vert(LL) -0.11 11-12 >999 360
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) -0.21 9-11 >999 240
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 9 n/a n/a
	Code IRC2018/TPI2014		Wind(LL) 0.06 11-12 >999 240
			PLATES MT20 GRIP 197/144
			Weight: 76 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF 2100F 1.8E *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-13,7-9: 2x8 SP DSS

BRACING-

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

REACTIONS.

(size) 13=0-3-8, 9=0-3-8
Max Horz 13=-83(LC 6)
Max Uplift 13=-123(LC 8), 9=-123(LC 9)
Max Grav 13=1000(LC 1), 9=1000(LC 1)

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

TOP CHORD 2-3=-1274/179, 3-4=-1157/109, 4-5=-997/135, 5-6=-1157/109, 6-7=-1274/180,
2-13=-909/165, 7-9=-909/165
BOT CHORD 12-13=-158/1011, 11-12=-2/997, 9-11=-103/1011

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=123, 9=123.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11,2020

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss E3	Truss Type Common	Qty 1	Ply 1	Lot 60 W2	I43967020
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:21 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EczUTUF-d6vIDuRCsHjxhHdgQwRuPLQhCoD5AJKw_LwFG7yA4uq

Job Reference (optional)

0-10-8 5-3-0 10-6-0 15-9-0 21-0-0 21-10-8
0-10-8 5-3-0 5-3-0 5-3-0 5-3-0 0-10-8

4x9 =

Scale = 1:40.7

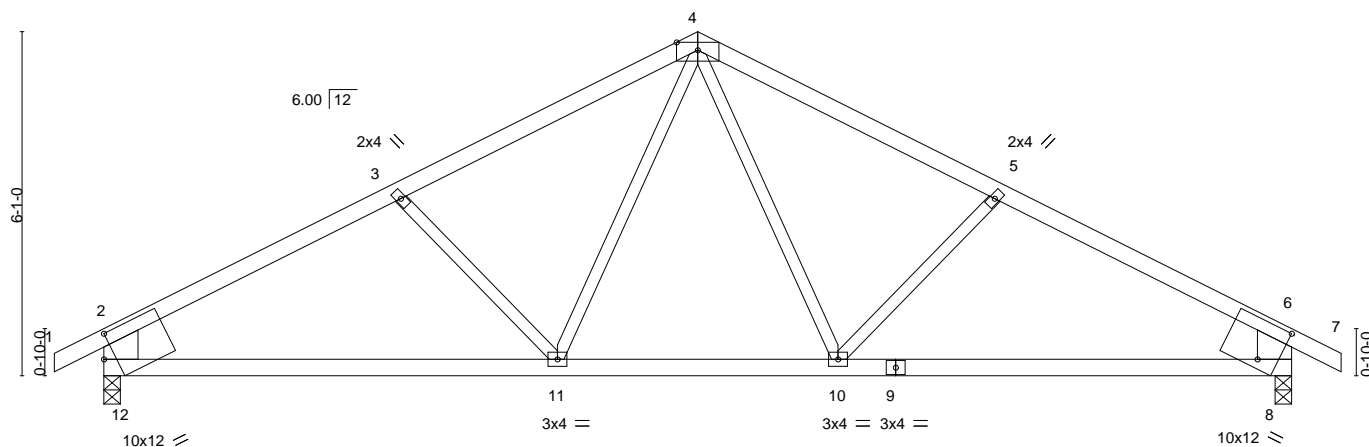


Plate Offsets (X,Y)--	[8:0-4-1,0-8-2], [12:0-2-7,0-4-14]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.16 10-11	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.25 10-11	>968	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.03 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.09 10-11	>999	240	Weight: 73 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x3 SPF No.2 *Except*
2-12,6-8: 2x8 SP DSS

BRACING-

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

REACTIONS.

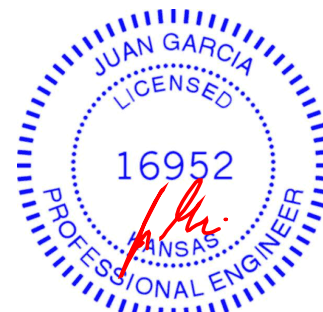
(size) 12=0-3-8, 8=0-3-8
Max Horz 12=99(LC 7)
Max Uplift 12=-140(LC 8), 8=-140(LC 9)
Max Grav 12=1000(LC 1), 8=1000(LC 1)

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

TOP CHORD 2-3=-1318/195, 3-4=-1092/171, 4-5=-1092/171, 5-6=-1318/195, 2-12=-898/182,
6-8=-898/182
BOT CHORD 11-12=-177/1066, 10-11=-25/819, 8-10=-100/1066
WEBS 4-10=-62/308, 4-11=-62/308

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) 12=140, 8=140.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11,2020

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss E4	Truss Type COMMON GIRDER	Qty 1	Ply 3	Lot 60 W2 Job Reference (optional)	I43967021
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Wheeler Lumber, Waverly, KS - 66871,

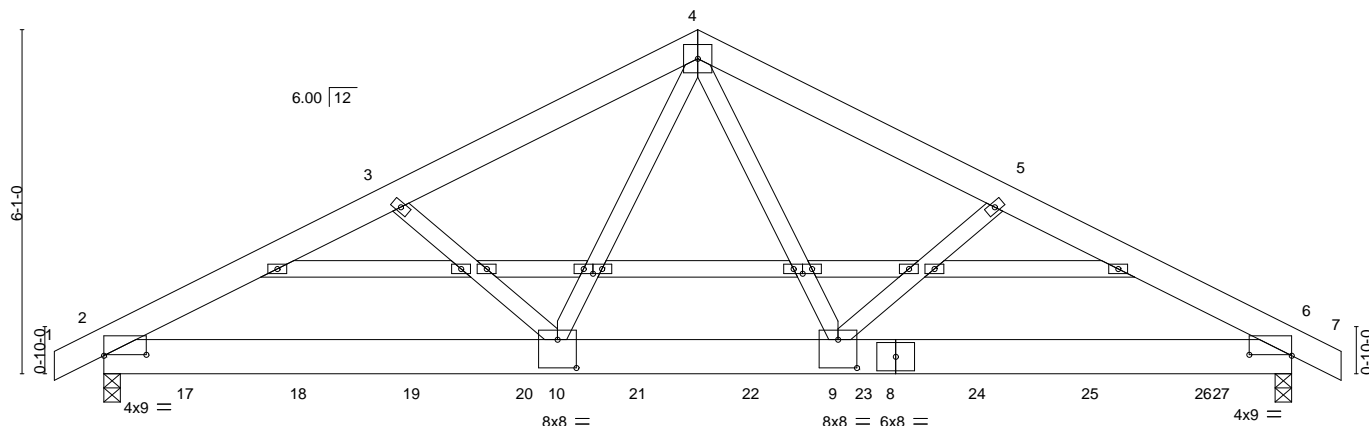
8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:23 2020 Page 1

ID:ell3htjhC3ucpFh1fG0EczUTUF-ZU03eaSSOvzfwnb2XLUMUmVATbxt9UDRfPMK0yA4uo

0-10-8 5-3-0 10-6-0 15-9-0 21-0-0 21-10-8
0-10-8 5-3-0 5-3-0 5-3-0 5-3-0 0-10-8

6x6 =

Scale = 1:40.7



	8-0-4 8-0-4	12-11-12 4-11-8	21-0-0 8-0-4
Plate Offsets (X,Y)--	[2:0-9-0,0-0-3], [6:0-9-0,0-0-3], [9:0-4-0,0-6-0], [10:0-4-0,0-6-0], [13:0-1-15,0-1-0], [14:0-1-15,0-1-0]		

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.09	6-9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.16	6-9	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.03	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.06	6-9	>999		
								Weight: 447 lb	FT = 10%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=65(LC 7)
Max Uplift 2=368(LC 8), 6=629(LC 9)
Max Grav 2=5571(LC 1), 6=6604(LC 1)

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

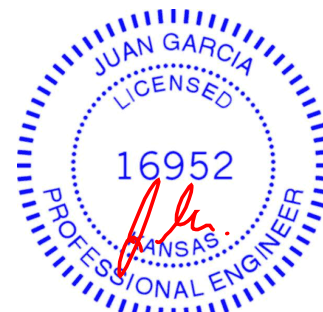
TOP CHORD 2-3=-7961/529, 3-4=-7797/523, 4-5=-8097/609, 5-6=-8287/618
BOT CHORD 2-10=-469/6914, 9-10=-317/5528, 6-9=-495/7211
WEBS 4-9=-358/3999, 5-9=-243/251, 4-10=-175/3369, 3-10=-251/271

NOTES-

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=368, 6=629.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 919 lb down and 80 lb up at 1-5-7, 935 lb down and 73 lb up at 3-5-7, 900 lb down and 79 lb up at 5-5-7, 899 lb down and 69 lb up at 7-5-7, 880 lb down and 64 lb up at 9-5-7, 975 lb down and 42 lb up at 11-5-7, 942 lb down and 36 lb up at 13-5-7, 946 lb down and 144 lb up at 15-5-7, 973 lb down and 148 lb up at 17-5-7, and 973 lb down and 152 lb up at 19-5-7, and 971 lb down and 155 lb up at 19-9-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2



December 11, 2020

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2
210383	E4	COMMON GIRDER	1	3	I43967021
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:23 2020 Page 2
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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-4=-70, 4-7=-70, 2-6=-20
 - Concentrated Loads (lb)
 - Vert: 17=-877(F) 18=-894(F) 19=-868(F) 20=-869(F) 21=-880(F) 22=-975(F) 23=-942(F) 24=-946(F) 25=-973(F) 26=-973(F) 27=-971(F)

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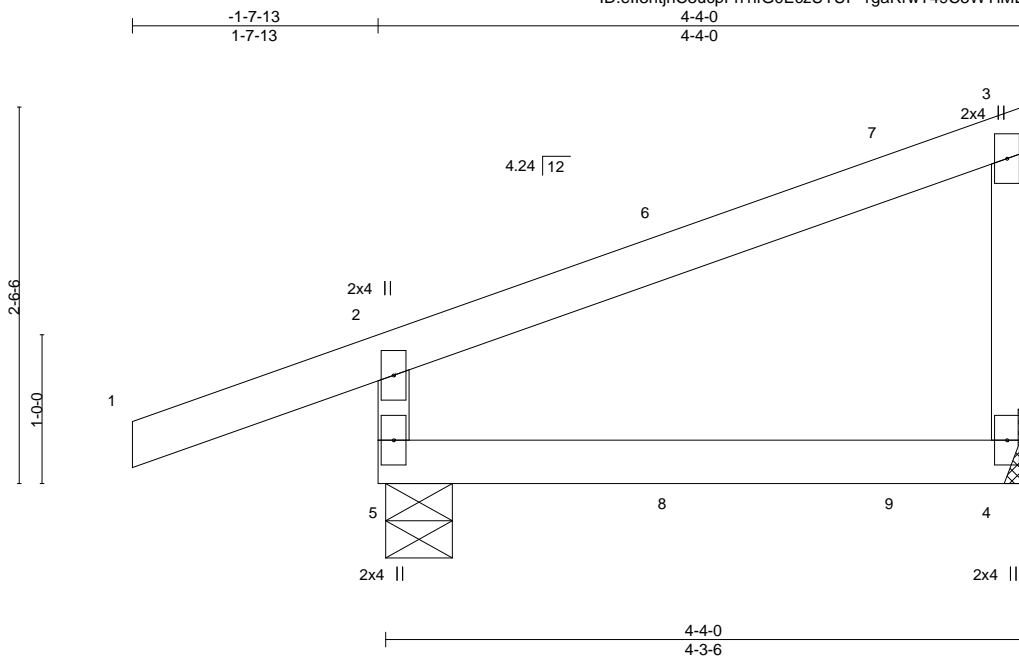


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967022
210383	J1	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:24 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-1gaRrwT49C5WYIME52?b1z2NB?M6NgrNgJ9vsSyA4un



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 0.24	Vert(LL)	-0.01	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.03	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	
									Weight: 14 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-5-6, 4=Mechanical
Max Horz 5=107(LC 24)
Max Uplift 5=124(LC 4), 4=64(LC 5)
Max Grav 5=338(LC 1), 4=181(LC 1)

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

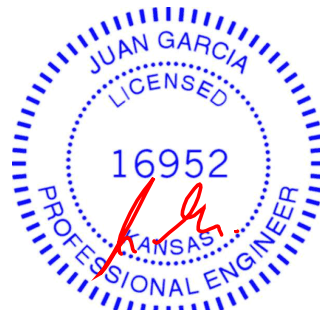
TOP CHORD 2-5=-298/146

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=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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 68 lb down and 19 lb up at 2-0-9, and 86 lb down and 62 lb up at 3-6-14 on top chord, and 11 lb down and 14 lb up at 2-0-9, and 21 lb down at 3-6-14 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 7=-14(B) 8=2(F) 9=-13(B)



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967023
210383	J2	Jack-Open	3	1	Job Reference (optional)	

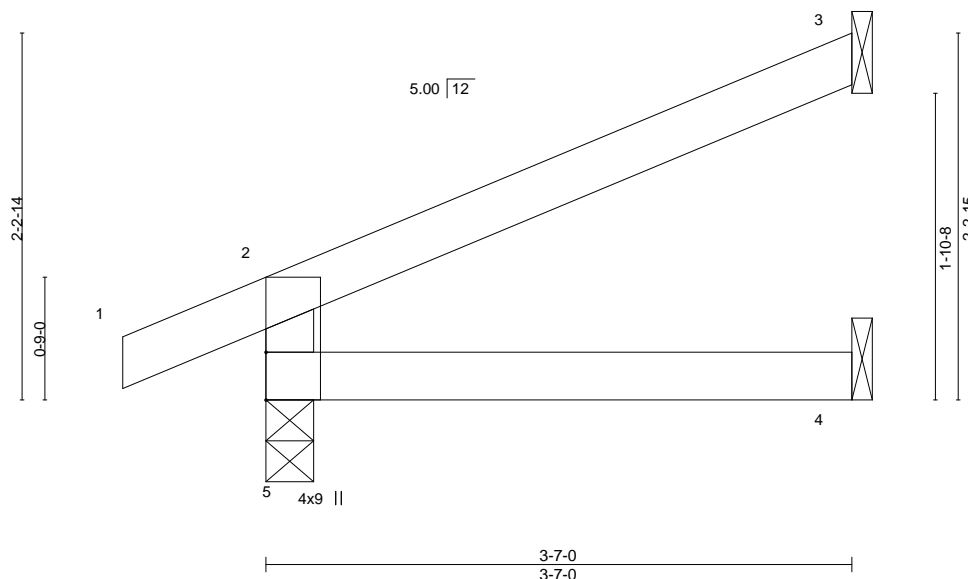
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:53 2020 Page 1

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Scale = 1:14.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.01	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	
								Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=65(LC 8)
Max Uplift 5=34(LC 8), 3=54(LC 8)
Max Grav 5=234(LC 1), 3=103(LC 1), 4=63(LC 3)

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

NOTES-

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



December 11, 2020

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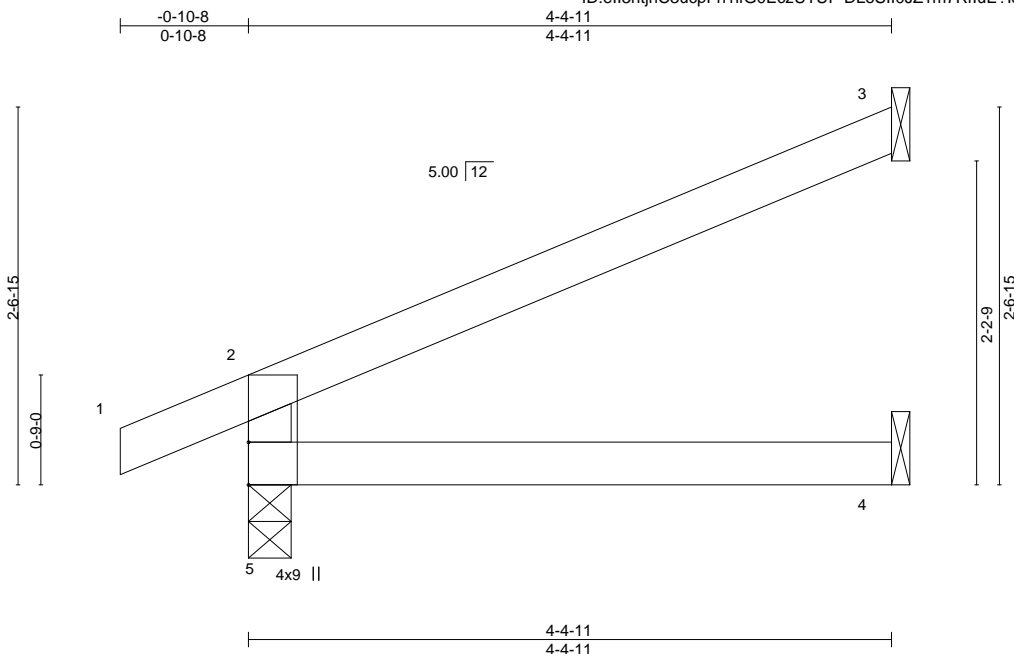
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967024
210383	J3	Jack-Open	3	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:09 2020 Page 1

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Scale = 1:15.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.01	4-5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.03	4-5	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.02	4-5	>999	240	
									Weight: 12 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=79(LC 8)
Max Uplift 5=37(LC 8), 3=67(LC 8)
Max Grav 5=268(LC 1), 3=130(LC 1), 4=79(LC 3)

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

NOTES-

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



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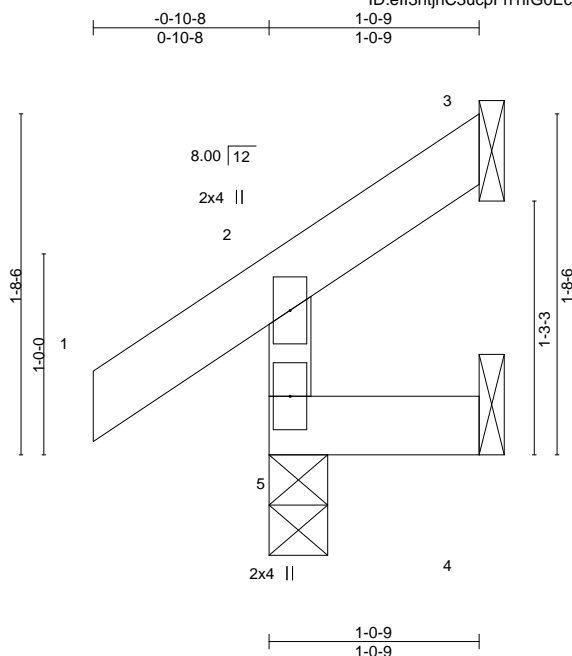
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16023 Swingley Ridge Rd
Chesterfield, MO 63017



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.07	Vert(LL) -0.00 5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) -0.00 5	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-R				Weight: 4 lb	FT = 10%

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

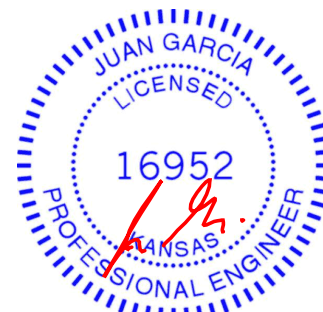
BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 1-0-9 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
 Max Horz 5=42(LC 5)
 Max Uplift 5=-7(LC 8), 3=-21(LC 8), 4=-10(LC 8)
 Max Grav 5=146(LC 1), 3=13(LC 6), 4=19(LC 6)

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

NOTES-

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



December 11, 2020

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

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

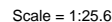


16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Job Reference (optional)

ID:ell3htjhC3ucpFh1ifG0EczUTUF-aIdLL04SNaQQYQAs0YyK2W6s29KT57MkA5GZdYvA4u?



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

(size) 7=0-4-3, 5=Mechanical
Max Horz 7=165(LC 5)
Max Uplift 7=-198(LC 4), 5=-217(LC 8)
Max Grav 7=593(LC 1), 5=625(LC 1)

TOP CHORD 2-7=-553/219, 2-3=-1213/422
BOT CHORD 5-6=-487/1091
WEBS 2-6=-375/1092, 3-6=-44/273, 3-5=-1065/459

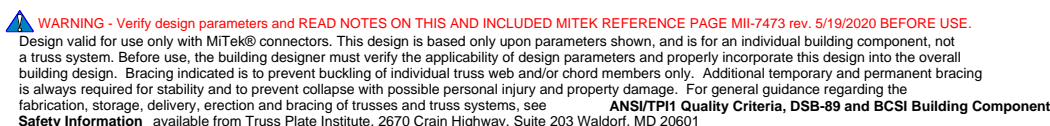
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 7 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) except (jt=lb) 7=198, 5=217.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 69 lb down and 20 lb up at 2-0-9, 107 lb down and 73 lb up at 3-6-14, and 80 lb down and 58 lb up at 4-4-14, and 105 lb down and 87 lb up at 6-9-3 on top chord, and 13 lb down and 16 lb up at 2-0-9, 15 lb down at 3-7-4, 15 lb down and 16 lb up at 4-4-14, and 28 lb down at 6-9-3, and 259 lb down and 107 lb up at 7-4-3 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).

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



December 11, 2020

Continued on page 2



Job	Truss	Truss Type	Qty	Ply	Lot 60 W2
210383	J5	Diagonal Hip Girder	1	1	I43967026
Job Reference (optional)					

Wheeler Lumber, Waverly, KS - 66871,

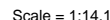
8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:14 2020 Page 2
ID:eIl3htjhC3ucpFh1ifG0EczUTUF-alcLL04SNaOQYQAs0YuK2W6s29KT57MkA5GZdYyA4u?

LOAD CASE(S) Standard

- Uniform Loads (plf)
 - Vert: 1-2=-70, 2-4=-70, 6-7=-20, 5-6=-20
- Concentrated Loads (lb)
 - Vert: 6=-7(B) 10=-23(F) 11=2(F) 12=-0(F) 13=-13(F) 14=-259(B)



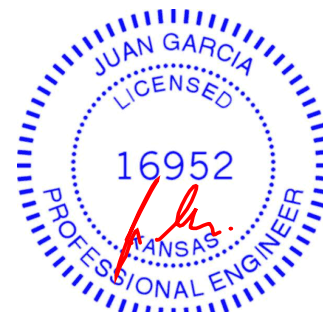
8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:15 2020 Page 1
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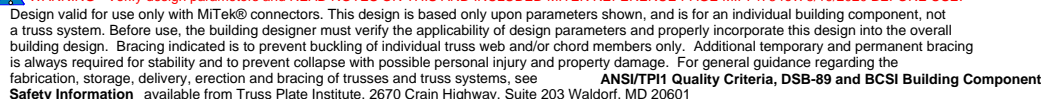
TOP CHORD	Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

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

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



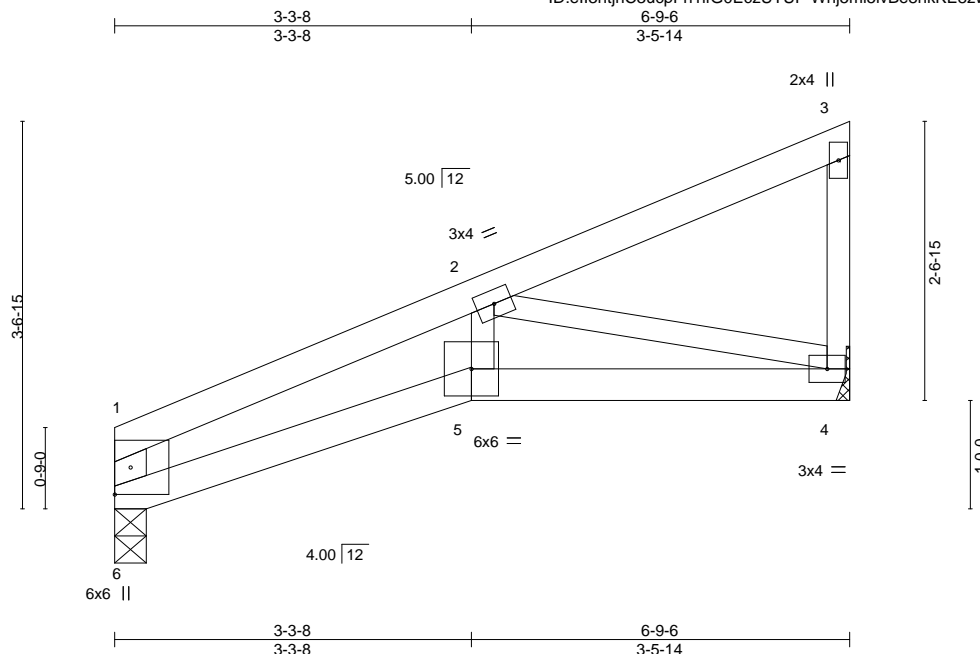
December 11, 2020



Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967028
210383	J7	Jack-Closed	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:16 2020 Page 1
ID:ell3htjhC3ucpFh1fG0EcZUTUF-Whj5mi5ivBe8nkKE8zwo7xBGoy20ZAU1dPlghRyA4tz



Scale = 1:21.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.04	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.08	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.03	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S	Wind(LL)	0.03	5	>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.

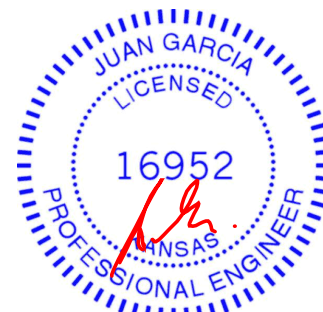
(size) 6=0-3-8, 4=Mechanical
Max Horz 6=122(LC 5)
Max Uplift 6=37(LC 8), 4=72(LC 8)
Max Grav 6=294(LC 1), 4=294(LC 1)

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

TOP CHORD 1-6=-364/93, 1-2=-580/121
BOT CHORD 5-6=-152/494, 4-5=-143/459
WEBS 2-4=-453/167

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) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



December 11, 2020

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

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



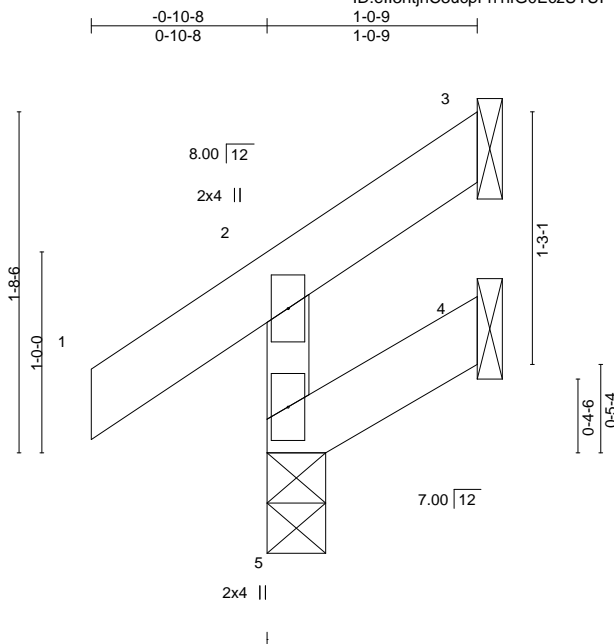
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967029
210383	J8	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:17 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-_tHTz16KgVm?PuvQihS1g8kTVMTCfzAs3VDDtyA4ty



Scale = 1:11.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=44(LC 5)
Max Uplift 5=4(LC 8), 3=-23(LC 8), 4=-11(LC 8)
Max Grav 5=146(LC 1), 3=15(LC 6), 4=21(LC 6)

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

NOTES-

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



December 11, 2020

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

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



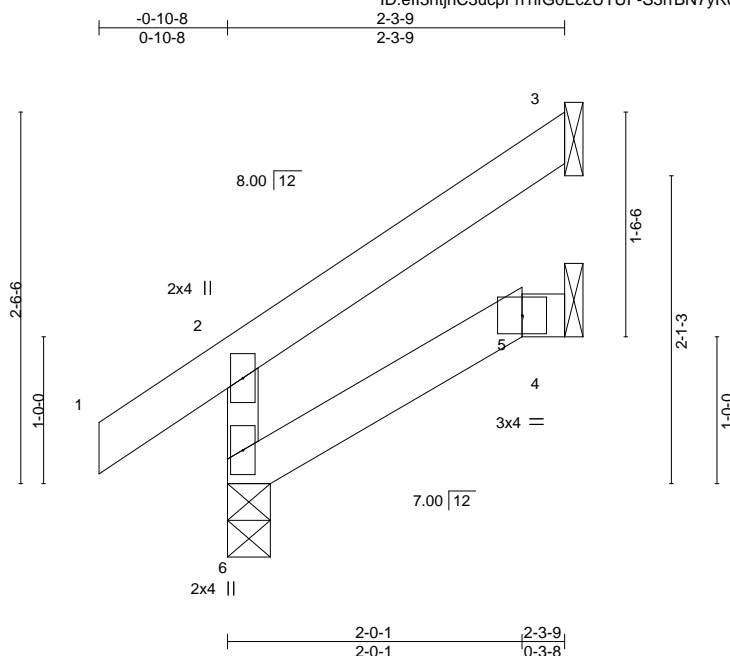
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967030
210383	J9	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:18 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-S3rrBN7yRous02UdFOzGDMHeompP16CJ5iEmmKyA4tx



Scale = 1:15.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	5	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	5-6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.00	5-6	>999	240	Weight: 8 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=69(LC 8)
Max Uplift 3=55(LC 8), 4=3(LC 8)
Max Grav 6=180(LC 1), 3=69(LC 15), 4=41(LC 3)

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

NOTES-

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



December 11, 2020

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

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



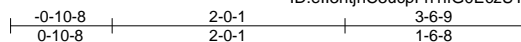
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967031
210383	J10	Jack-Open	1	1	Job Reference (optional)	

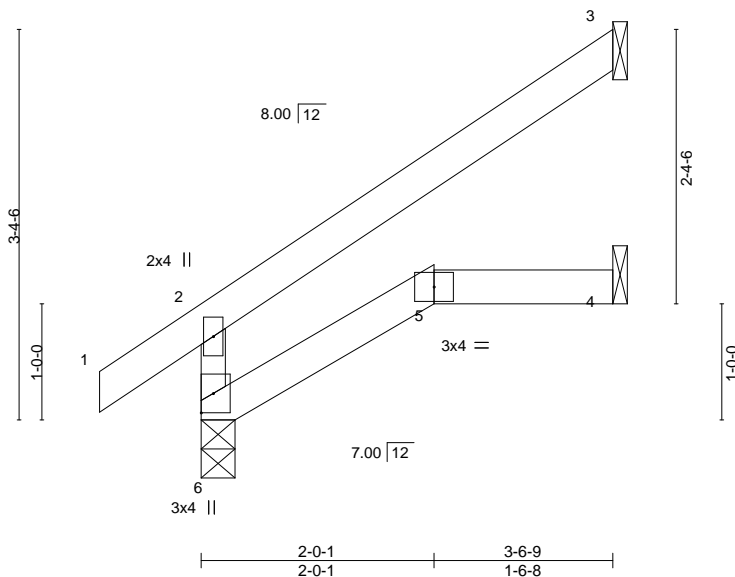
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:25 2020 Page 1

ID:elI3htjhC3ucpFh1ifG0EcZUTUF-Wt8p3GUjwWDN9uxRfmWqZBaZ_PiG675WvzuTPuyA4um



Scale = 1:19.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.01	5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.02	5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	5-6	>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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

(size) 6=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 6=103(LC 8)
Max Uplift 3=82(LC 8)
Max Grav 6=231(LC 1), 3=115(LC 15), 4=65(LC 3)

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

NOTES-

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



December 11, 2020

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

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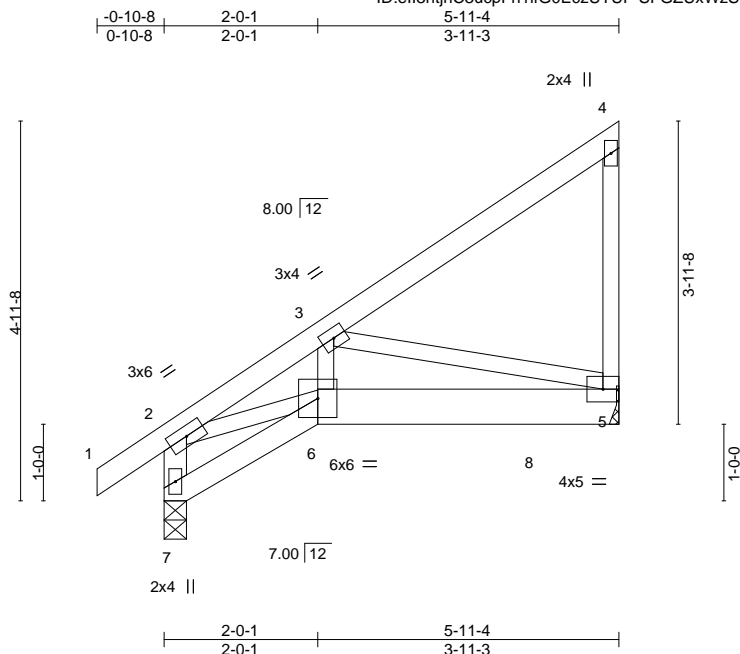
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967032
210383	J11	Jack-Closed Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:ell3htjhC3ucpFh1ifG0EcZUTUF-SFGZUxWzS7T5PC4pmBYIecgueCHGa_GpMHNATnyA4uk



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	-0.02	5-6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.04	5-6	>999	240	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.21	Horz(CT)	0.01	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P	Wind(LL)	0.02	5-6	>999	240	
									Weight: 28 lb FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 5-6: 2x6 SPF No.2
 WEBS 2x3 SPF No.2 *Except*
 2-7: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 7=0-3-8, 5=Mechanical
 Max Horz 7=176(LC 5)
 Max Uplift 7=-72(LC 8), 5=-277(LC 8)
 Max Grav 7=436(LC 1), 5=751(LC 1)

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

TOP CHORD 2-7=-417/143, 2-3=-692/226
 BOT CHORD 5-6=-243/580
 WEBS 2-6=-146/556, 3-6=-130/298, 3-5=-583/285

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 7 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) 7 except (jt=lb) 5=277.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 603 lb down and 238 lb up at 4-10-7 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-2=-70, 2-4=-70, 6-7=-20, 5-6=-20
 Concentrated Loads (lb)
 Vert: 8=-603(B)



December 11, 2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 210383	Truss J12	Truss Type Jack-Open	Qty 6	Ply 1	Lot 60 W2 I43967033
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:28 2020 Page 1

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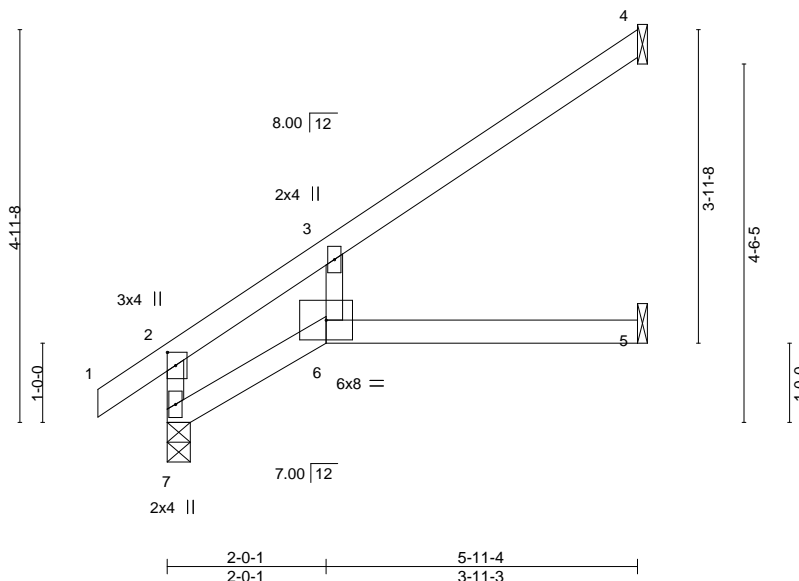


Plate Offsets (X,Y)--		[2:0-2-0,0-1-4]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.41
TCDL 10.0	Lumber DOL	1.15	BC 0.44
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.08 5-6 >857 360
			Vert(CT) -0.15 5-6 >462 240
			Horz(CT) 0.08 5 n/a n/a
			Wind(LL) 0.09 5-6 >739 240
			PLATES MT20
			GRIP 197/144
			Weight: 18 lb FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

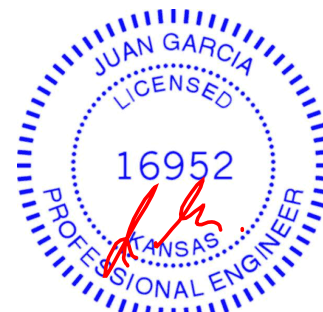
REACTIONS.

(size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=118(LC 8)
Max Uplift 4=64(LC 8), 5=-1(LC 8)
Max Grav 7=334(LC 1), 4=170(LC 13), 5=103(LC 3)

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

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); 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.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967034
210383	J13	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:35 2020 Page 1

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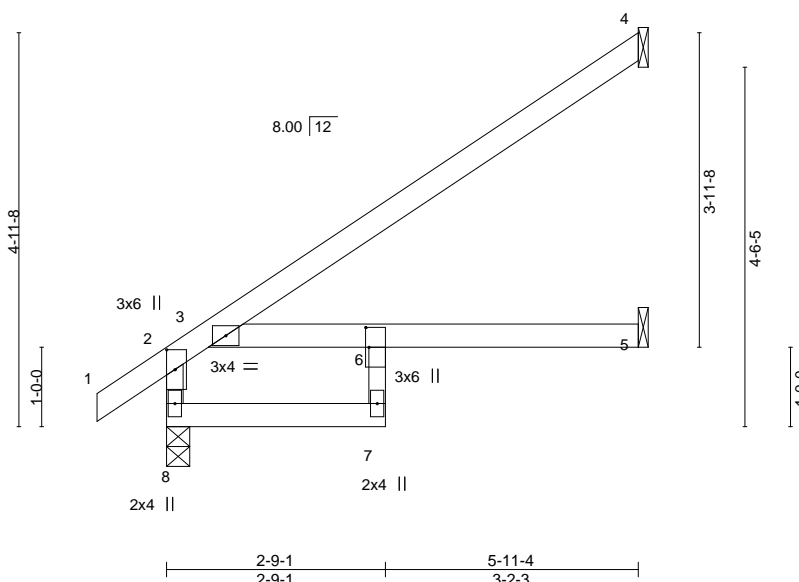


Plate Offsets (X,Y)--		[2:0-3-0,0-1-4], [6:0-3-0,0-0-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.47		Vert(LL)	-0.06	5-6	>999	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.43		Vert(CT)	-0.14	5-6	>506		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.05	5	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.06	5-6	>999	Weight: 20 lb	FT = 10%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 6-7: 2x3 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) 8=0-3-8, 4=Mechanical, 5=Mechanical
 Max Horz 8=119(LC 8)
 Max Uplift 4=66(LC 8)
 Max Grav 8=366(LC 1), 4=174(LC 13), 5=131(LC 3)

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

TOP CHORD 2-8=-343/0

NOTES-

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



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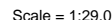
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NOTES-

- 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) 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.



December 11, 2020



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



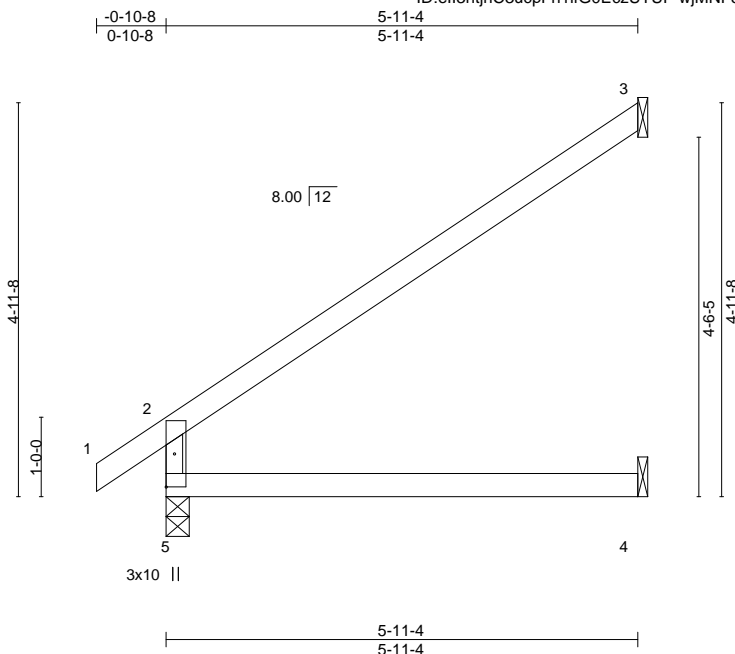
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967036
210383	J15	Jack-Open	7	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:45 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-wjMNF5jFDfkXZzTHqztWNPPuwTTGoA2TV4IX6kyA4uS



Scale = 1:29.0

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 0.56	Vert(LL)	-0.05	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.12	4-5	>569	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.06	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.05	4-5	>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

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.

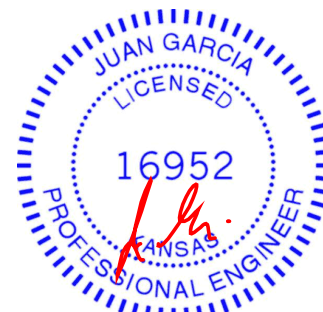
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=119(LC 8)
Max Uplift 3=80(LC 8)
Max Grav 5=334(LC 1), 3=191(LC 13), 4=111(LC 3)

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

TOP CHORD 2-5=-288/25

NOTES-

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



December 11, 2020

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

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

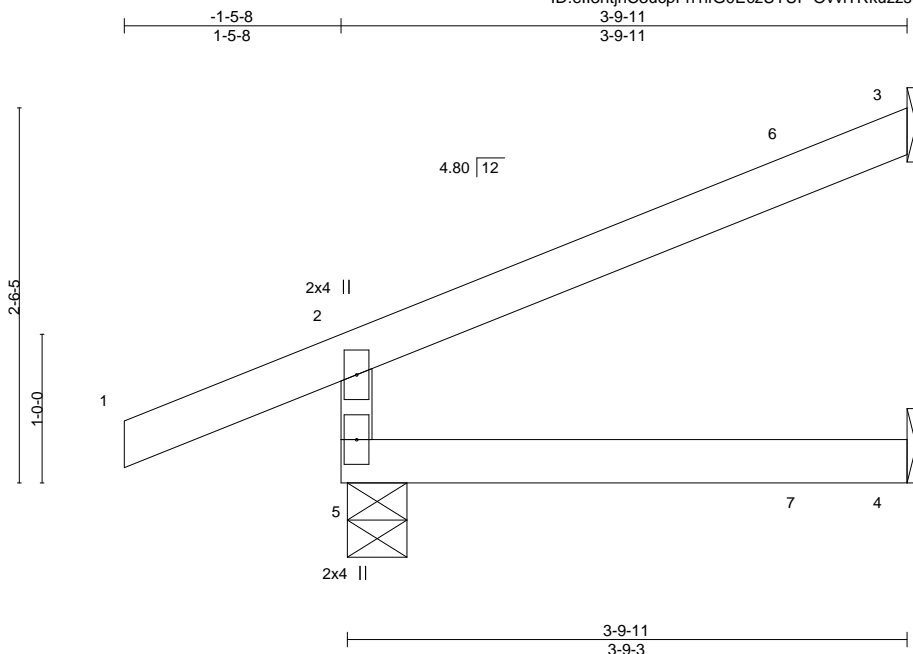


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967037
210383	J16	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:46 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-OvviTRkuzsOB71TNgOlwcy9QtsdXdHckkU4eAyA4uR



Scale = 1:15.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240		
									Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-13, 3=Mechanical, 4=Mechanical
Max Horz 5=71(LC 8)
Max Uplift 5=64(LC 4), 3=73(LC 8)
Max Grav 5=298(LC 1), 3=105(LC 1), 4=73(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-260/95

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.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 57 lb up at 3-2-0 on top chord, and 15 lb down at 3-2-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 4-5=-20
Concentrated Loads (lb)
Vert: 6=-1(F) 7=-5(F)



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss J17	Truss Type Jack-Open	Qty 1	Ply 1	Lot 60 W2 Job Reference (optional)	I43967038
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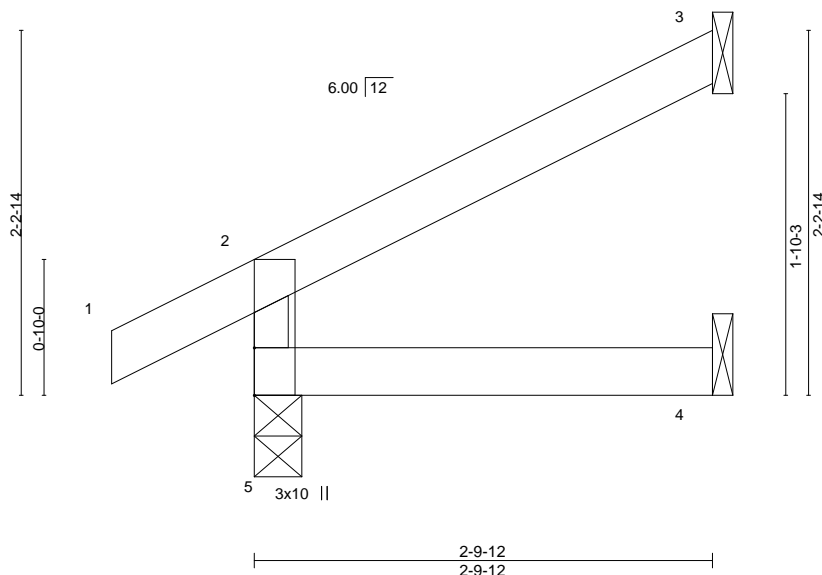
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:49 2020 Page 1

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-0-10-8
0-10-8
2-9-12
2-9-12

Scale = 1:14.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	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: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-12 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=63(LC 8)
Max Uplift 5=22(LC 8), 3=50(LC 8)
Max Grav 5=200(LC 1), 3=79(LC 1), 4=50(LC 3)

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

NOTES-

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



December 11, 2020

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967039
210383	J18	Jack-Open	4	1	Job Reference (optional)	

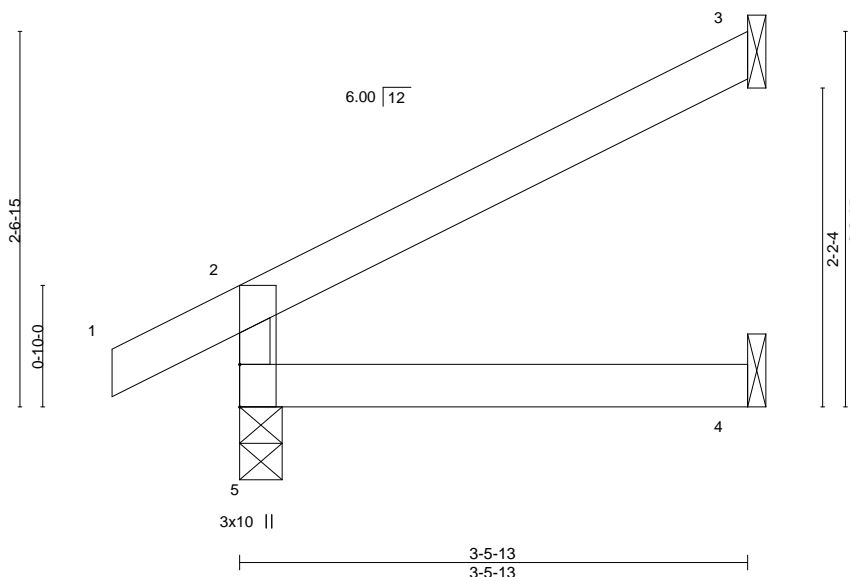
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:51 2020 Page 1

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Scale = 1:15.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-13 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=77(LC 8)
Max Uplift 5=24(LC 8), 3=62(LC 8)
Max Grav 5=228(LC 1), 3=102(LC 1), 4=63(LC 3)

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

NOTES-

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



December 11, 2020

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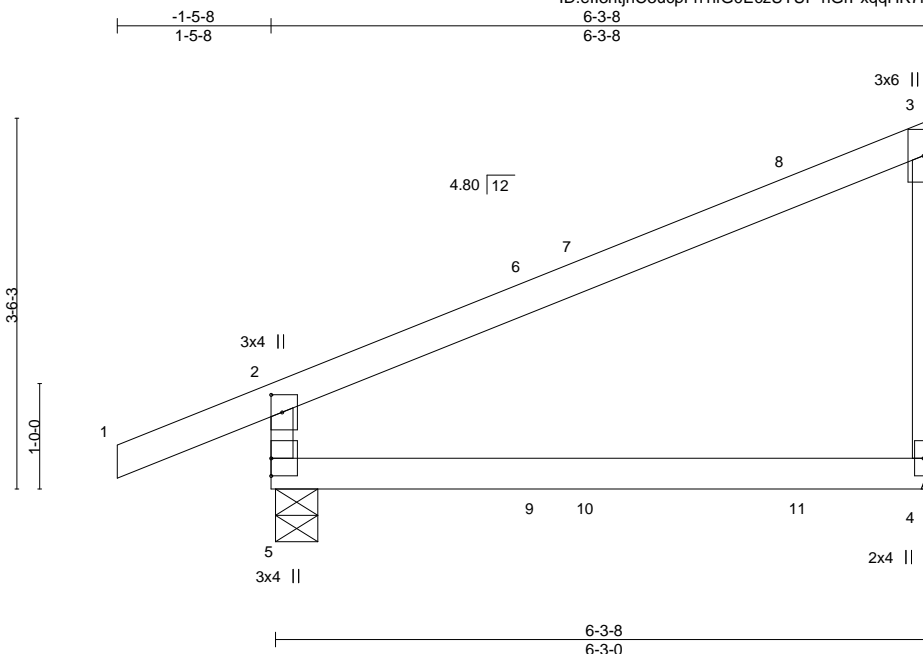
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967040
210383	J19	Diagonal Hip Girder	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:53 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-hGrPxqqHK7IPWC4ple0OI5kFZhClgo0eLKhyOGyA4uK



Scale = 1:21.9

Plate Offsets (X,Y)--	[2:0-2-0,0-1-4]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.06	4-5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.12	4-5	>591		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	4-5	>999	Weight: 20 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-4-13, 4=Mechanical
Max Horz 5=149(LC 5)
Max Uplift 5=-98(LC 4), 4=-100(LC 5)
Max Grav 5=399(LC 1), 4=268(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-348/134

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 4=100.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 73 lb down and 36 lb up at 2-6-15, and 87 lb down and 57 lb up at 3-0-12, and 93 lb down and 73 lb up at 5-0-15 on top chord, and 9 lb down and 14 lb up at 2-6-15, and 8 lb down at 3-0-12, and 21 lb down at 5-0-15 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

- 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=-3(F) 9=1(F) 10=-2(B) 11=-7(F)



December 11, 2020

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

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



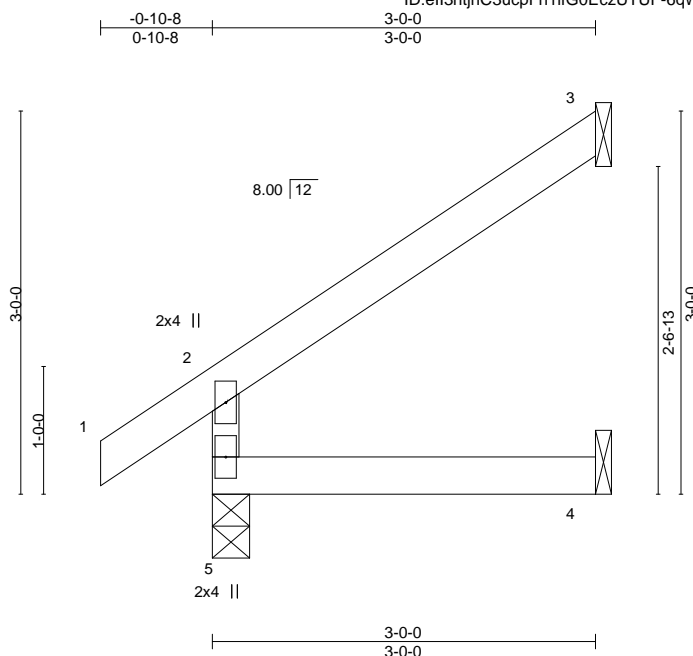
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967041
210383	J20	Jack-Open	2	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:56 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-6qWXZss9d27zNfoOzmZ5KjMspulvt9m41Hvc?byA4uH



Scale = 1:18.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 9 lb	FT = 10%

LUMBER-

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

BRACING-

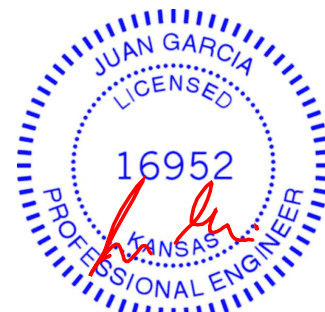
TOP CHORD Structural wood sheathing directly applied or 3-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=89(LC 8)
Max Uplift 5=2(LC 8), 3=68(LC 8)
Max Grav 5=208(LC 1), 3=94(LC 15), 4=54(LC 3)

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

NOTES-

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



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967042
210383	J21	Jack-Open	5	1	Job Reference (optional)	

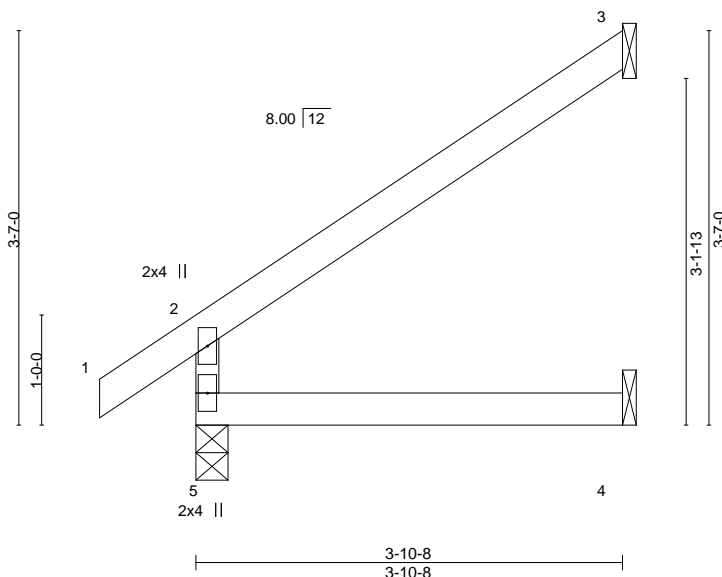
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:58 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-2DeI_YuP9fNhdzyn4BcZP8SB8izVL3GnUbOj3UyA4uF

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

Scale = 1:20.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	4-5	>999	240	Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-8 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=80(LC 8)
Max Uplift 3=54(LC 8)
Max Grav 5=244(LC 1), 3=122(LC 13), 4=71(LC 3)

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

NOTES-

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



December 11, 2020

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967043
210383	J22	Jack-Open	2	1	Job Reference (optional)	

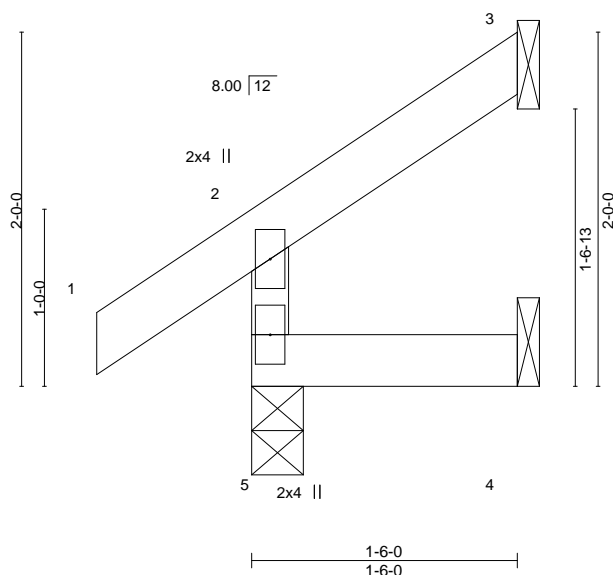
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:59 2020 Page 1

ID:ell3htjhC3ucpFh1fG0EcZUTUF-WPCgBuu1wzVYF7Xzev7oxL_O16Kl4WVWJfF8GcwyA4uE

-0-10-8 1-6-0
0-10-8 1-6-0

Scale = 1:13.0



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 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	5	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 6 lb	FT = 10%

LUMBER-

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

BRACING-

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

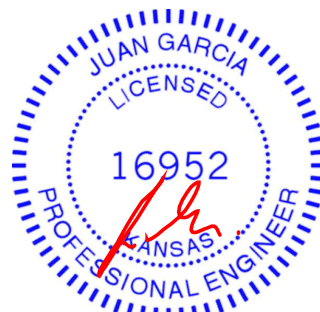
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=50(LC 8)
Max Uplift 5=-5(LC 8), 3=-35(LC 8), 4=-6(LC 8)
Max Grav 5=155(LC 1), 3=36(LC 15), 4=26(LC 3)

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967044
210383	J23	Jack-Open	2	1	Job Reference (optional)	

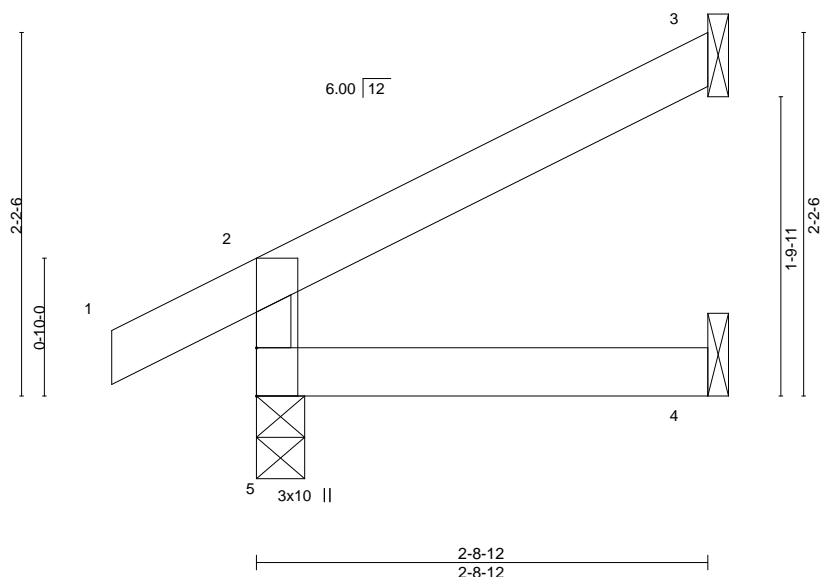
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 08:59:59 2020 Page 1

ID:elI3htjhC3ucpFh1ifG0EczUTUF-WPCgBuu1wzVYF7Xzev7oxL_Op6Kr4WVWJfF8GcwyA4uE

-0-10-8
0-10-8
2-8-12
2-8-12

Scale = 1:13.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	4-5	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	4-5	>999	240		
BCLL 0.0 *	Rep Stress Incr	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: 8 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

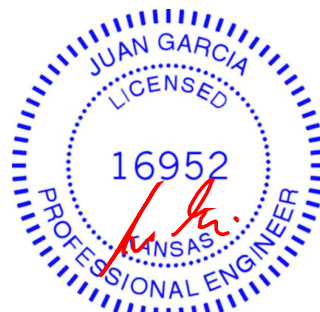
REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=61(LC 8)
Max Uplift 5=22(LC 8), 3=48(LC 8)
Max Grav 5=197(LC 1), 3=76(LC 1), 4=49(LC 3)

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

NOTES-

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



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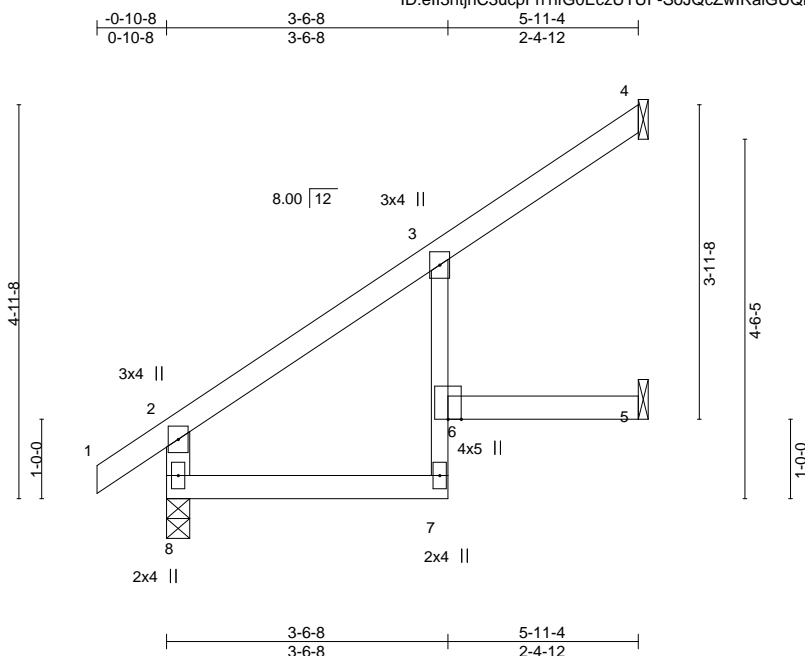
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967045
210383	J24	Jack-Open	7	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:01 2020 Page 1

ID:ell3htjhC3ucpFh1ifG0EcZUTUF-SoJQcZwIRaIGUQHmMk9G1m4gUvWkYP?pAZdNgpyA4uC



Scale = 1:29.0

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 0.33	Vert(LL)	-0.07	6	>999	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.12	6	>578	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.07	6	>999	240	
									Weight: 19 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
 Max Horz 8=118(LC 8)
 Max Uplift 4=49(LC 8), 5=14(LC 8)
 Max Grav 8=336(LC 1), 4=156(LC 13), 5=106(LC 13)

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

TOP CHORD 2-8=-304/7

NOTES-

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



December 11, 2020

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

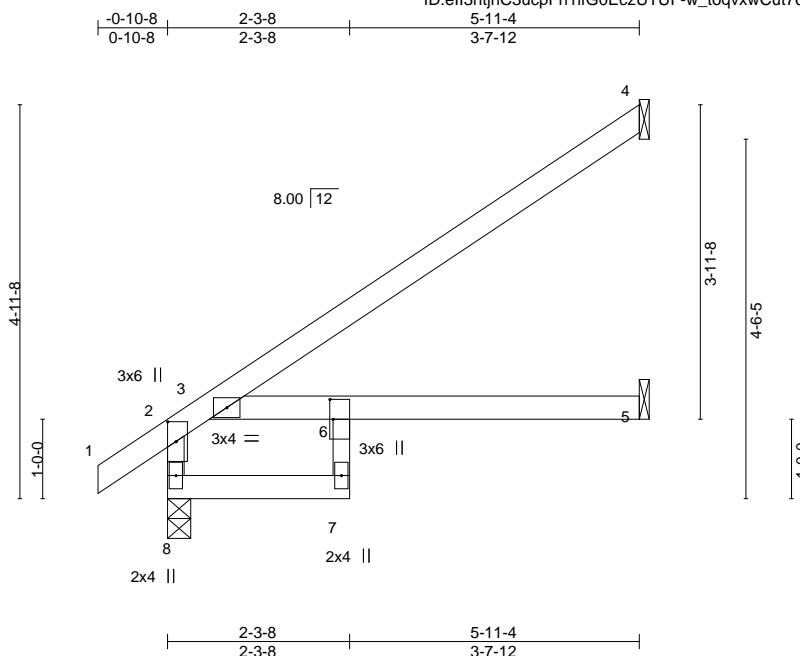


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967046
210383	J25	Jack-Open	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:02 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-w_toqvwxwCut76aGYJ1gVZ_cpsJGuHsFzPDMwCFyA4uB



Scale = 1:29.0

Plate Offsets (X,Y)--		[2:0-3-0,0-1-4], [6:0-3-0,0-0-8]									
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	0.48	Vert(LL)	-0.06 5-6 >999 360	MT20	197/144		
TCDL	10.0	Lumber DOL 1.15		BC	0.42	Vert(CT)	-0.13 5-6 >519 240				
BCLL	0.0 *	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.06 5 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-R		Wind(LL)	0.07 5-6 >999 240	Weight: 19 lb	FT = 10%		

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
6-7: 2x3 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) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=119(LC 8)
Max Uplift 4=67(LC 8)
Max Grav 8=360(LC 1), 4=176(LC 13), 5=122(LC 3)

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

TOP CHORD 2-8=-342/0

NOTES-

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



December 11, 2020

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

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967047
210383	J26	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:03 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-OBRA1FxYZB?_jkrktkK6B9v3jUx0JV6et6TlhyA4uA

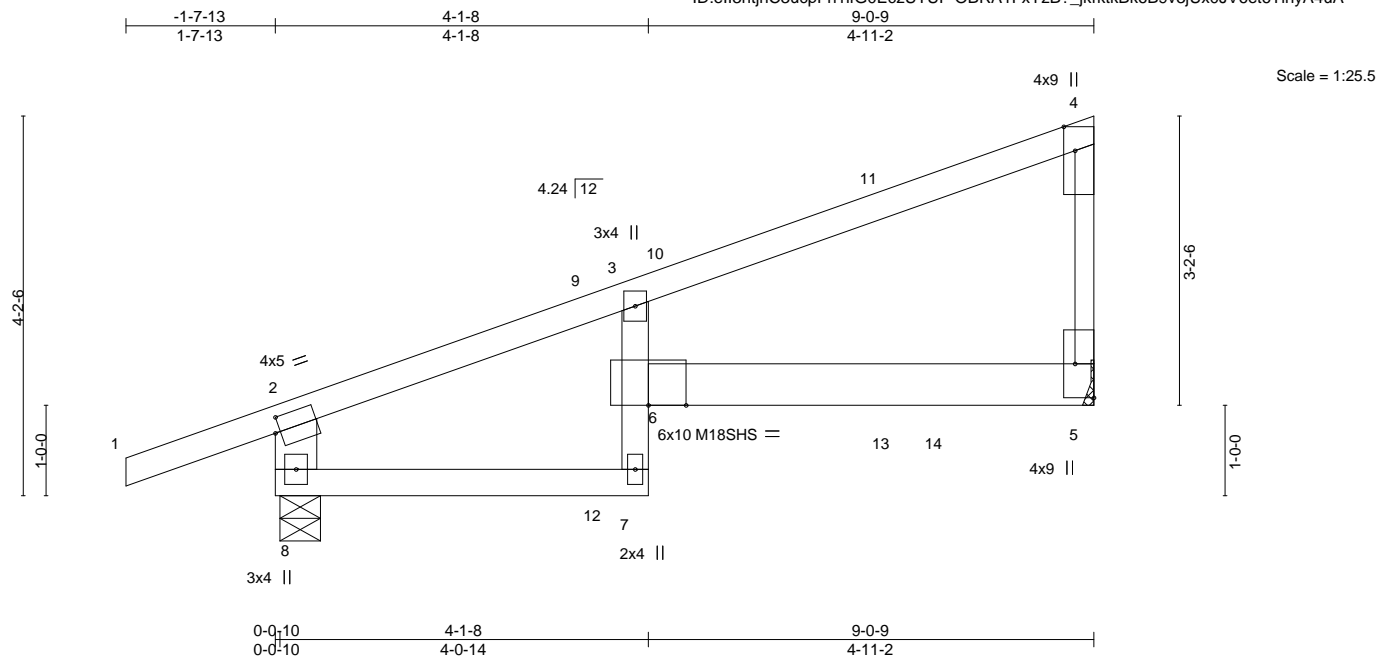


Plate Offsets (X,Y)--		[2:0-0-11,0-2-0], [4:0-3-3,Edge], [5:Edge,0-2-8]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77
TCDL 10.0	Lumber DOL	1.15	BC 0.88
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-R
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.23 6 >463 360
			Vert(CT) -0.39 6 >266 240
			Horz(CT) 0.11 5 n/a n/a
			Wind(LL) 0.23 6 >446 240
			PLATES GRIP
			MT20 197/144
			M18SHS 197/144
			Weight: 32 lb FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-5-6, 5=Mechanical
Max Horz 8=165(LC 5)
Max Uplift 8=-178(LC 4), 5=-208(LC 8)
Max Grav 8=600(LC 1), 5=619(LC 1)

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

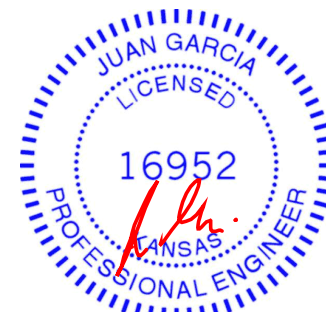
TOP CHORD 2-8=-534/196, 2-3=-518/119
BOT CHORD 7-8=-173/407

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=178, 5=208.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 103 lb down and 68 lb up at 3-6-14, and 85 lb down and 48 lb up at 4-4-14, and 91 lb down and 55 lb up at 6-9-3 on top chord, and 13 lb down at 3-6-14, and 39 lb down and 49 lb up at 6-9-3, and 254 lb down and 106 lb up at 7-4-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



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Continued on page 2

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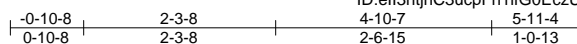
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967047
210383	J26	Diagonal Hip Girder	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:03 2020 Page 2
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LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 10=-4(B) 11=-9(B) 12=-6(F) 13=-31(B) 14=-254(F)



Scale = 1:27.5

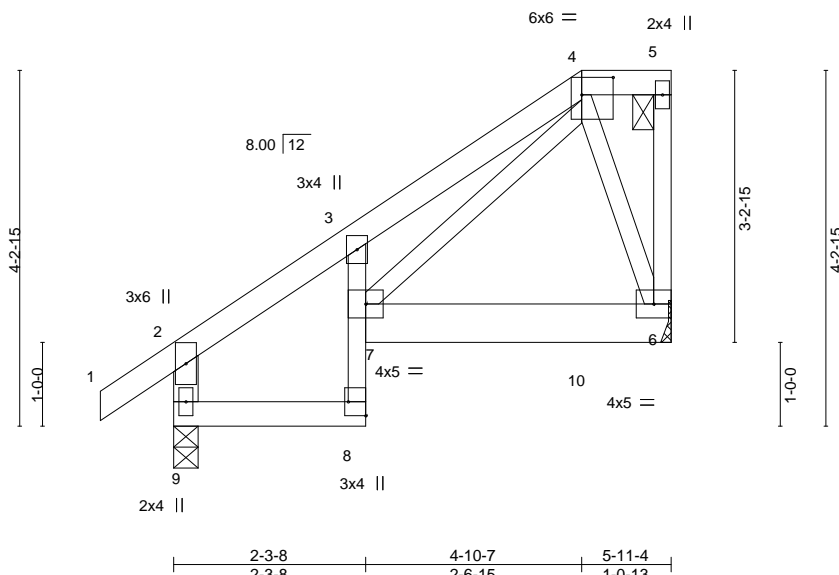


Plate Offsets (X,Y)--		[4:0-4-8,0-2-8], [8:Edge,0-2-8]		2-3-6		2-6-13		1-6-13			
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.03 6-7	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.06 6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.05 6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S		Wind(LL)	0.04 6-7	>999	240	Weight: 28 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, and 2-0-0 oc purlins: 4-5.
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
	3-8: 2x3 SPF No.2, 6-7: 2x6 SPF No.2		
WEBS	2x3 SPF No.2 *Except*		
	2-9: 2x4 SPF No.2		

REACTIONS. (size) 9=0-3-8, 6=Mechanical
Max Horz 9=150(LC 5)
Max Uplift 9=80(LC 8), 6=250(LC 5)
Max Grav 9=435(LC 1), 6=746(LC 1)

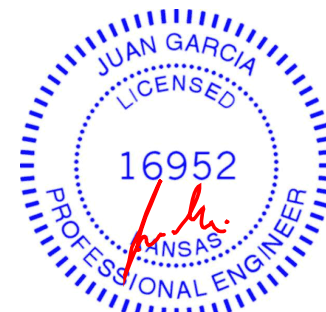
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-9=-415/108, 2-3=-361/75, 3-4=-494/208
 WEBS 4-7=-205/435, 4-6=-262/101

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) 9 except (jt=lb) 6=250.
- 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) 598 lb down and 229 lb up at 4'-10"-7 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, 2-4=-70, 4-5=-70, 8-9=-20, 6-7=-20
Concentrated Loads (lb)
Vert: 10=-598(F)



December 11, 2020

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

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967049
210383	J28	Jack-Open	1	1	Job Reference (optional)	

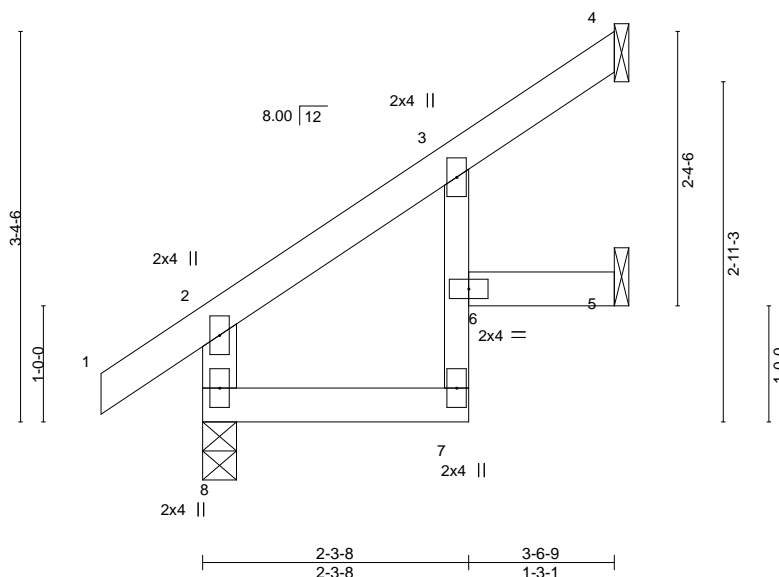
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:06 2020 Page 1

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-0-10-8 2-3-8 3-6-9
0-10-8 2-3-8 1-3-1

Scale = 1:19.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.01	6	>999	360	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.01	6	>999	240		
									Weight: 12 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 8=104(LC 8)
Max Uplift 8=-2(LC 8), 4=-48(LC 8), 5=-30(LC 8)
Max Grav 8=233(LC 1), 4=90(LC 15), 5=64(LC 15)

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

NOTES-

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



December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967050
210383	J29	Jack-Open	1	1	Job Reference (optional)	

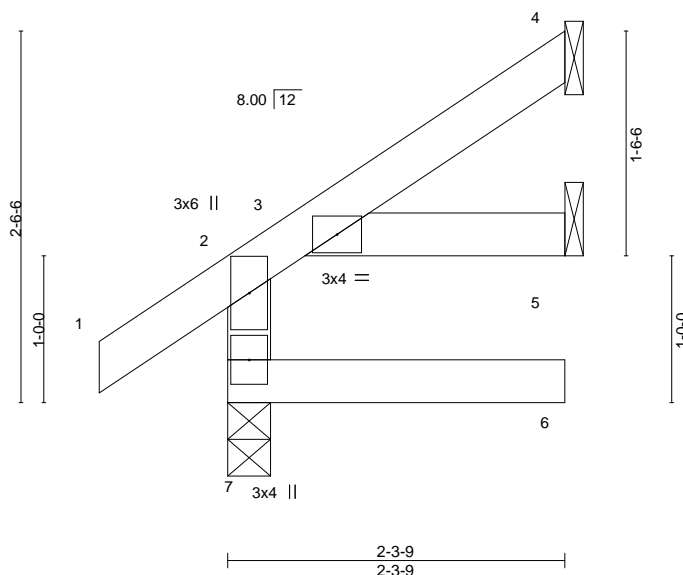
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:08 2020 Page 1

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Scale = 1:15.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.05	6	>552	360	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.09	6	>278	240	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.02	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R	Wind(LL)	0.03	6	>933	240	
								Weight: 10 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 7=0-3-8, 4=Mechanical, 5=Mechanical
Max Horz 7=70(LC 8)
Max Uplift 4=-39(LC 8), 5=-3(LC 8)
Max Grav 7=197(LC 1), 4=71(LC 15), 5=60(LC 3)

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

NOTES-

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



December 11, 2020

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

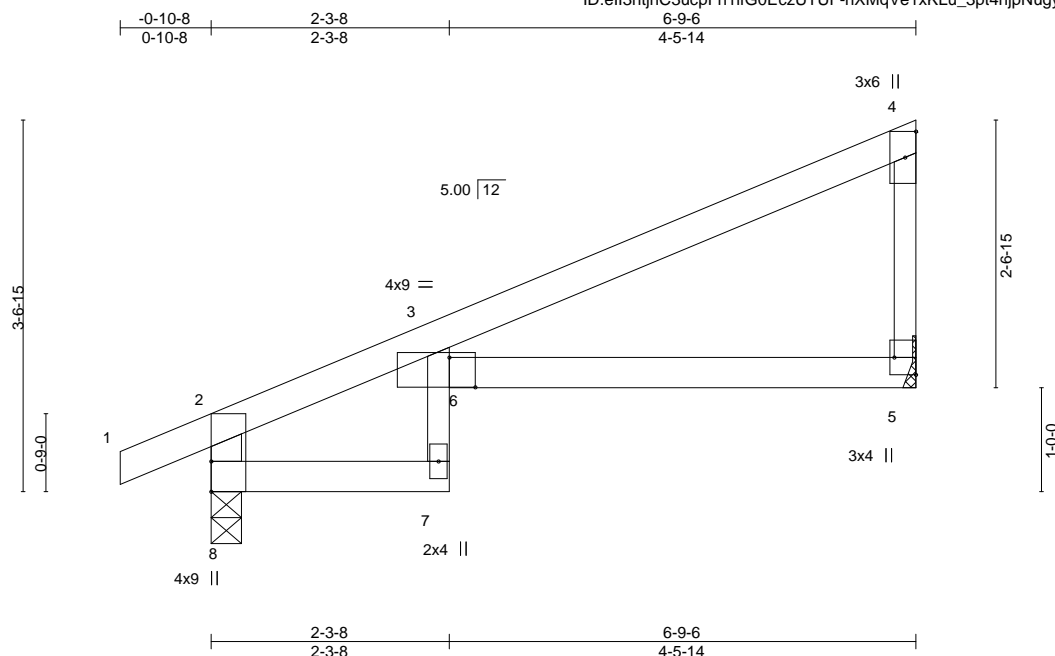
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871

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Scale = 1:22.2

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	3-7: 2x3 SPF No.2
WEBS	2x4 SPF No.2 *Except*
	4-5: 2x3 SPF No.2

BRACING-

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

REACTIONS.

(size) 8=0-3-8, 5=Mechanical
 Max Horz 8=131(LC 5)
 Max Uplift 8=-62(LC 8), 5=-71(LC 8)
 Max Grav 8=371(LC 1), 5=288(LC 1)

FORCES.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-8=-359/86, 2-3=-284/36

NOTES-

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



December 11, 2020



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

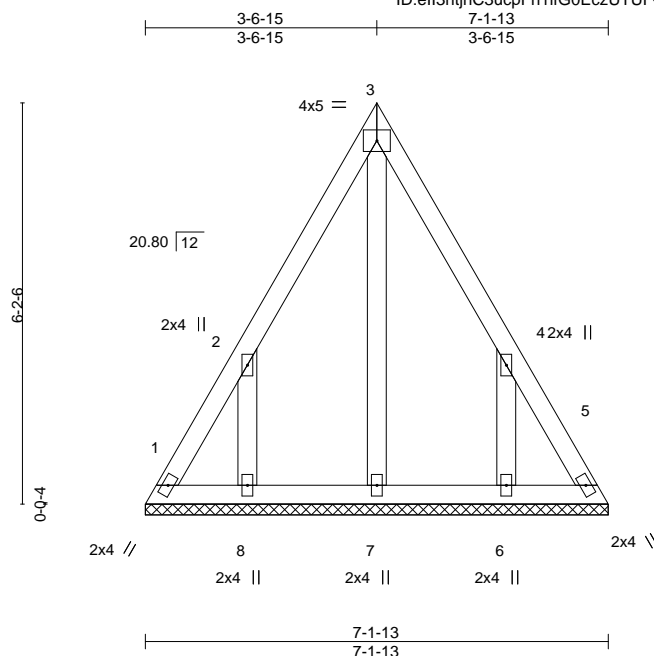


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967052
210383	LAY1	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:19 2020 Page 1
ID:ell3htjhC3ucpFh1fG0EcZUTUF-wGPEOj8aC60jeC3pp6UVIZpplA9wmYaTJM_KlmyA4tw



Scale = 1:35.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999	197/144
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: 35 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 7-1-13.
(lb) - Max Horz 1=174(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) except 1=126(LC 6), 5=111(LC 7), 8=297(LC 8), 6=297(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=281(LC 15), 6=281(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-268/190, 4-5=-258/172
WEBS 2-8=-245/319, 4-6=-244/319

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 1, 111 lb uplift at joint 5, 297 lb uplift at joint 8 and 297 lb uplift at joint 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.



December 11, 2020

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

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

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

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



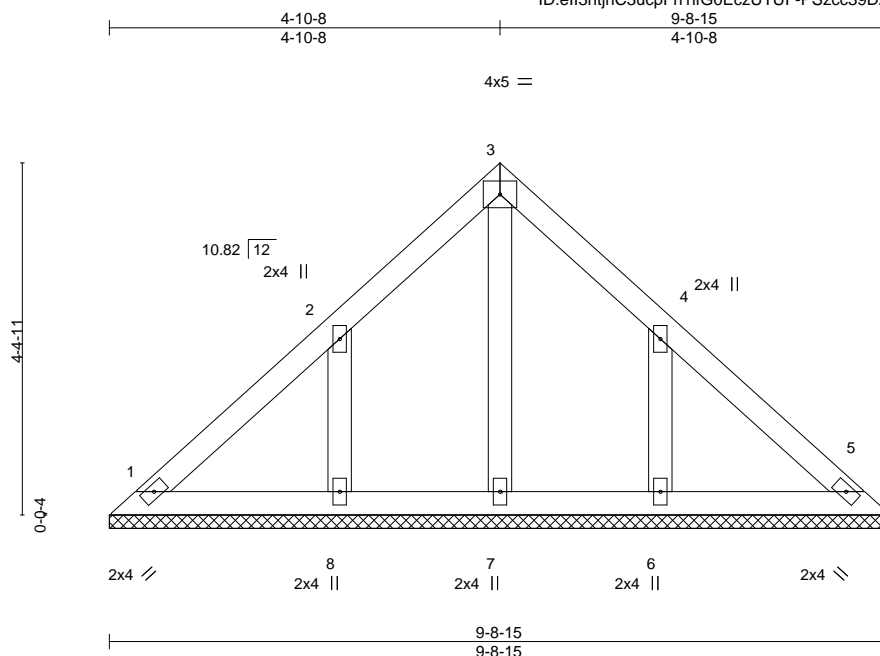
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss LAY2	Truss Type GABLE	Qty 1	Ply 1	Lot 60 W2 I43967053
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:20 2020 Page 1

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Scale = 1:28.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 34 lb	FT = 10%

LUMBER-

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

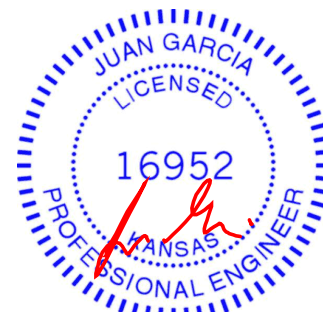
REACTIONS.

All bearings 9-8-15.
(lb) - Max Horz 1=106(LC 5)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=138(LC 8), 6=137(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=268(LC 15), 6=268(LC 16)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=138, 6=137.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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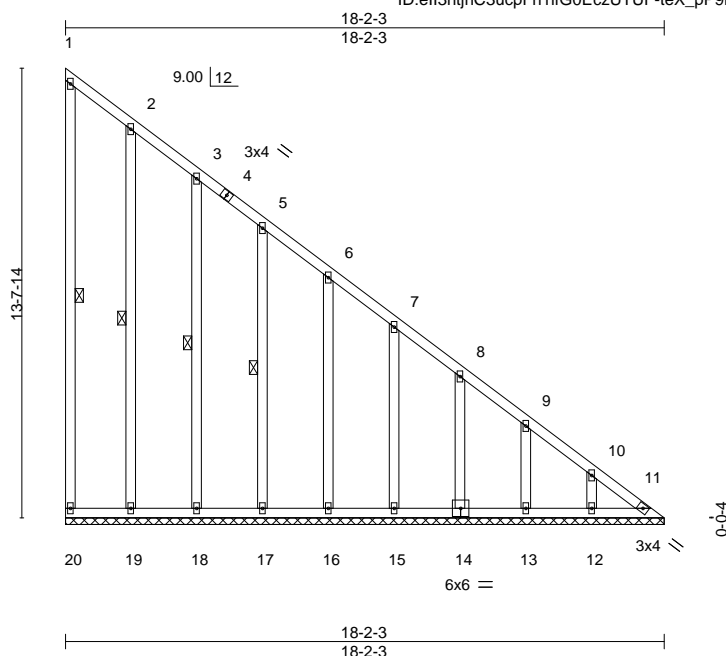
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967054
210383	LAY3	GABLE	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:21 2020 Page 1

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Scale = 1:70.0

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 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.02	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 119 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 1-20, 2-19, 3-18, 5-17

REACTIONS.

All bearings 18-2-3.

(lb) - Max Horz 20=-539(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 20, 19, 18, 17, 16, 15, 14, 13, 12 except 11=-103(LC 7)

Max Grav All reactions 250 lb or less at joint(s) 20, 19, 18, 17, 16, 15, 14, 13, 12 except 11=378(LC 9)

FORCES.

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

TOP CHORD 5-6=-269/106, 6-7=-345/134, 7-8=-422/161, 8-9=-499/189, 9-10=-576/217,

10-11=-651/246

BOT CHORD 19-20=-194/539, 18-19=-194/539, 17-18=-194/539, 16-17=-194/539, 15-16=-194/539,

14-15=-194/539, 13-14=-194/540, 12-13=-194/540, 11-12=-194/540

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) 20, 19, 18, 17, 16, 15, 14, 13, 12 except (jt=lb) 11=103.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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

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



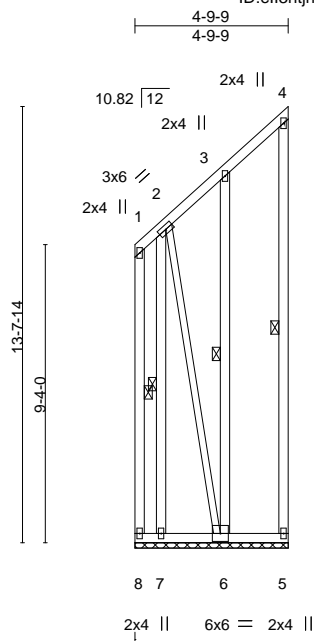
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967055
210383	LAY4	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:22 2020 Page 1

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Scale = 1:72.1

LOADING (psf)	SPACING-	2-0-0	CSI.	2x4	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13		Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03		Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.72		Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 70 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

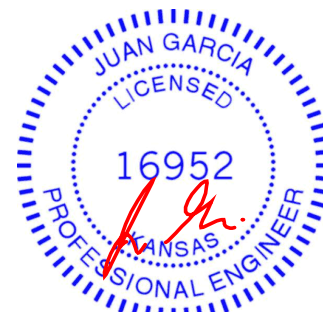
All bearings 4-9-9.
 (lb) - Max Horz 8=166(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 8, 5 except 7=150(LC 6), 6=821(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 8, 5 except 7=633(LC 8), 6=408(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-7=-613/183, 2-6=-289/808

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; 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) 8, 5 except (jt=lb) 7=150, 6=821.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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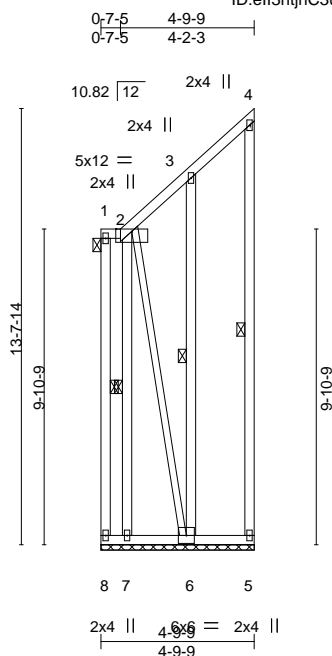
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967056
210383	LAY5	GABLE	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:24 2020 Page 1

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Scale = 1:72.1

LOADING (psf)	SPACING-	2-0-0	CSI.	2x4	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06		Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03		Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64		Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 70 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 4-9-9.
 (lb) - Max Horz 8=146(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 8, 5 except 7=232(LC 6), 6=814(LC 8)
 Max Grav All reactions 250 lb or less at joint(s) 8, 5 except 7=791(LC 8), 6=413(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-7=772/264, 2-6=259/719

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; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 5 except (jt=lb) 7=232, 6=814.
- 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.



December 11, 2020

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

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

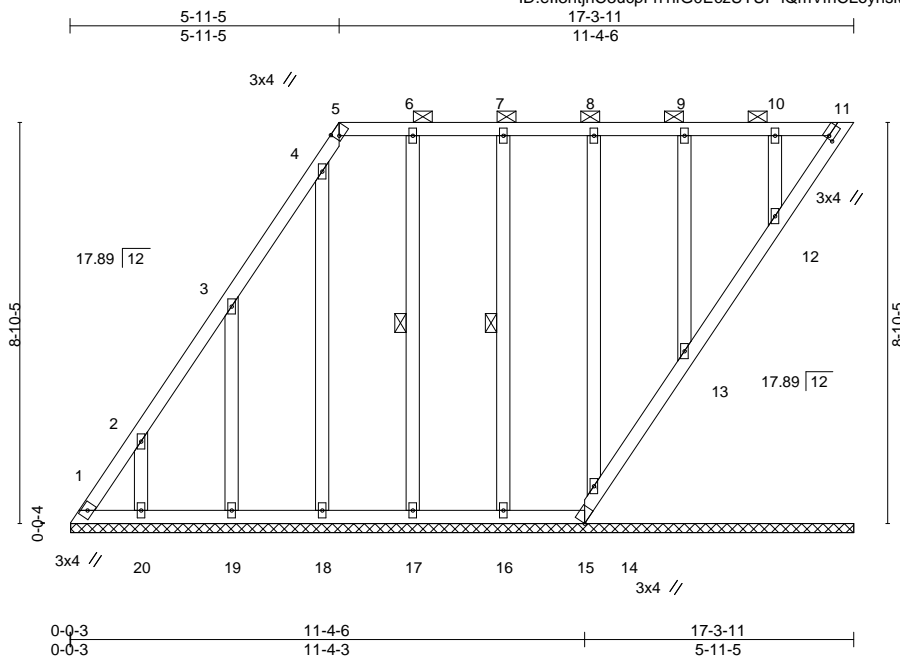


16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967057
210383	LAY6	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:25 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-lQmVfnCLOYnsM7WzAMbv?q3rQbCIAETLiReVQyA4tq



Scale = 1:50.9

Plate Offsets (X,Y)--		[5:0-1-1,Edge], [11:0-0-13,0-1-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.07	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	0.16	Horz(CT)	-0.00 11	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S					
								Weight: 101 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 5-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-17, 7-16

REACTIONS.

All bearings 17-3-8.
(lb) - Max Horz 1=350(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 11, 15, 18, 17, 16, 14, 13, 12 except 1=158(LC 6), 20=192(LC 8), 19=240(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 11, 15, 20, 18, 17, 16, 14, 13, 12 except 1=398(LC 8), 19=260(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-487/232, 2-3=-304/152
WEBS 3-19=-220/265

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 15, 18, 17, 16, 14, 13, 12 except (jt=lb) 1=158, 20=192, 19=240.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 14, 13, 12.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11,2020

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

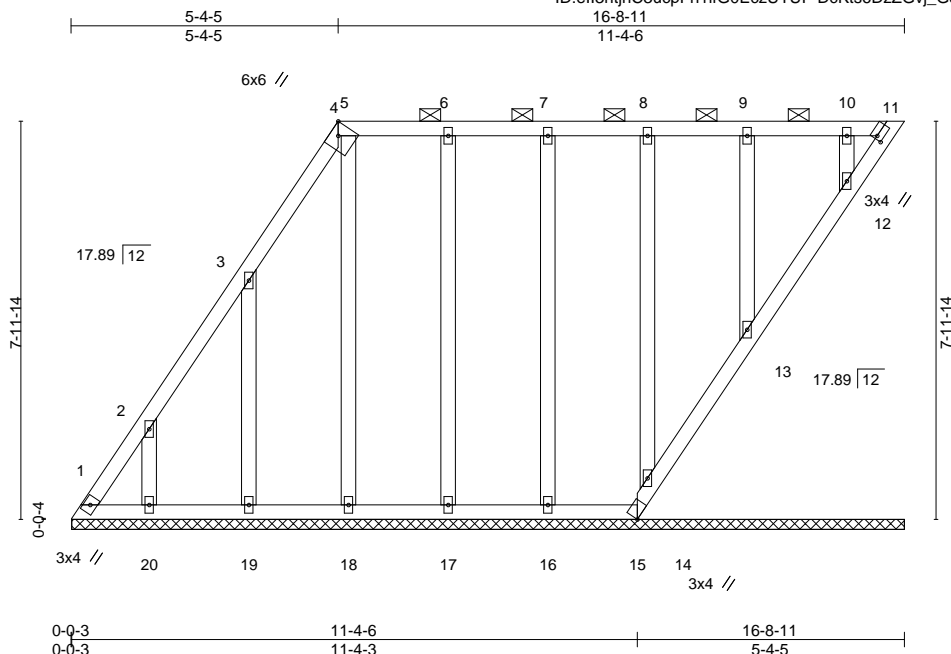


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967058
210383	LAY7	GABLE	1	1		

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:26 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-DcKts6DzZGvj_G59j468X2c0L_YWvhlVwyAB2syA4tp



Scale = 1:46.2

Plate Offsets (X,Y)--		[4:0-2-15,Edge], [11:0-0-13,0-1-8]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	-0.00	11	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 94 lb		FT = 10%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 11-12.

REACTIONS.

All bearings 16-8-8.
(lb) - Max Horz 1=314(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 11, 15, 18, 17, 16, 14, 13, 12 except 1=119(LC 6), 20=197(LC 8), 19=224(LC 8)
Max Grav All reactions 250 lb or less at joint(s) 11, 15, 20, 18, 17, 16, 14, 13, 12 except 1=327(LC 8), 19=251(LC 15)

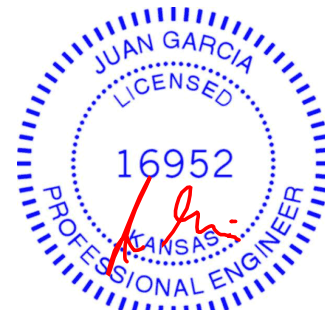
FORCES.

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

TOP CHORD 1-2=402/185

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 15, 18, 17, 16, 14, 13, 12 except (jt=lb) 1=119, 20=197, 19=224.
- Non Standard bearing condition. Review required.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 11, 2020

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

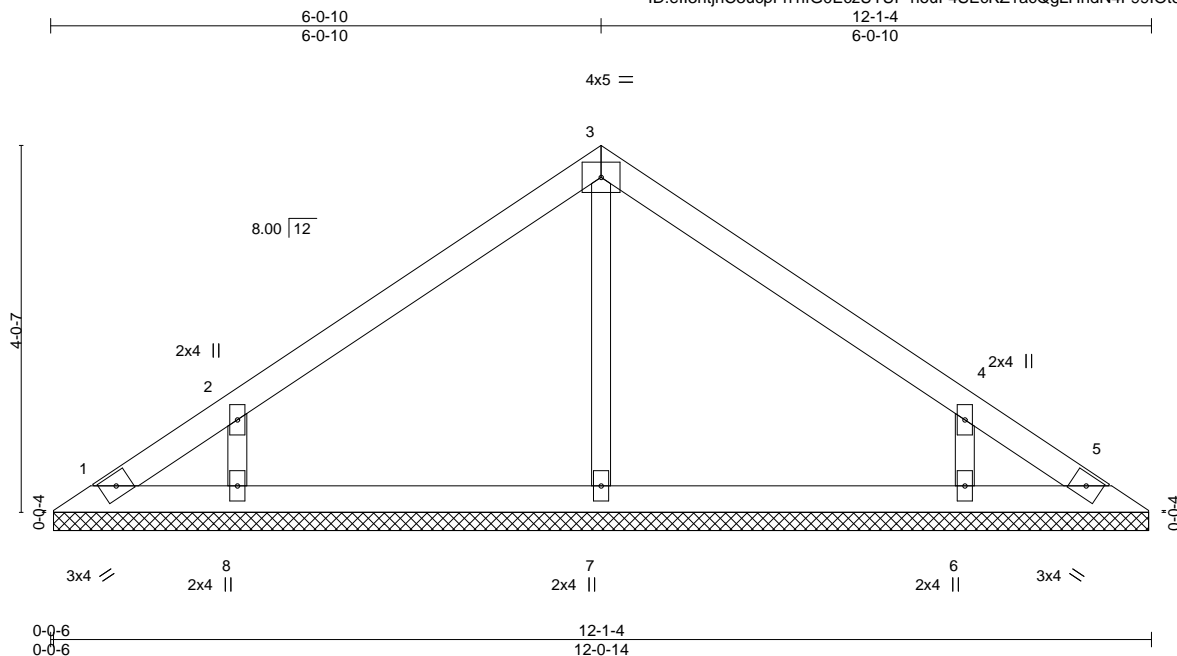


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss V1	Truss Type Valley	Qty 1	Ply 1	Lot 60 W2 Job Reference (optional)	I43967059
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:27 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-houF4SEcKZ1acQgLHndN4F99lOtee9Ke9cwlyA4to



Scale = 1:25.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 33 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 12-0-8.
(lb) - Max Horz 1=97(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=138(LC 8), 6=138(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=285(LC 1), 8=342(LC 15), 6=342(LC 16)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-281/182, 4-6=-281/182

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=138, 6=138.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 11, 2020

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

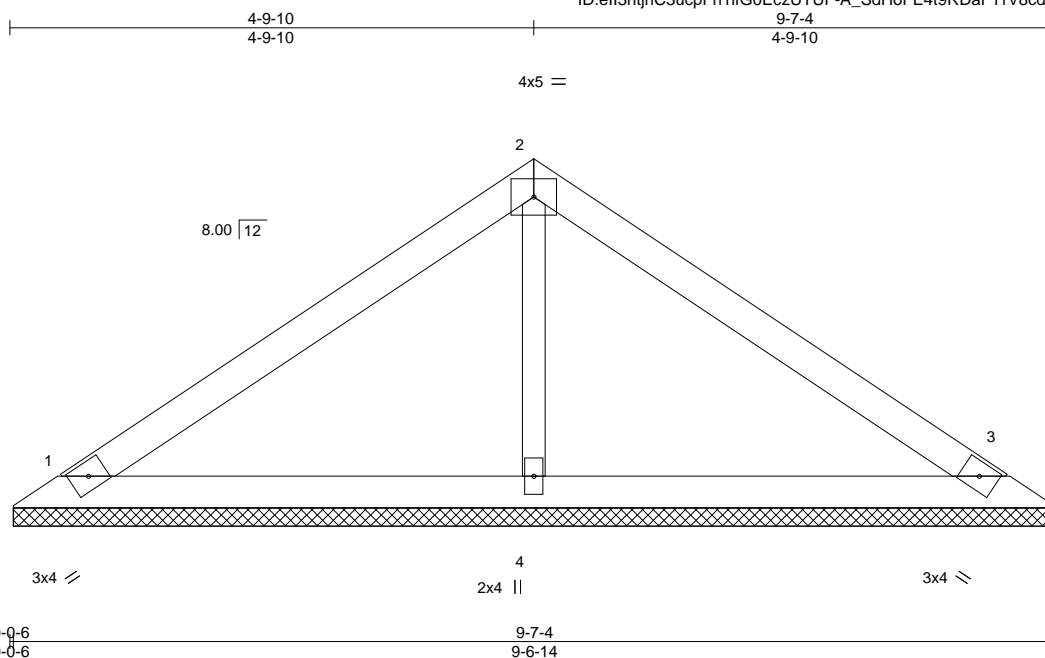


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss V2	Truss Type Valley	Qty 1	Ply 1	Lot 60 W2 Job Reference (optional)	I43967060
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:28 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-A_SdHoFE4t9RDafYrV8cdThlkoC0NdkoOGfl6kyA4tn



Scale = 1:21.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 25 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=9-6-8, 3=9-6-8, 4=9-6-8
Max Horz 1=-75(LC 4)
Max Uplift 1=-38(LC 8), 3=-47(LC 9), 4=-15(LC 8)
Max Grav 1=200(LC 1), 3=200(LC 1), 4=378(LC 1)

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

NOTES-

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



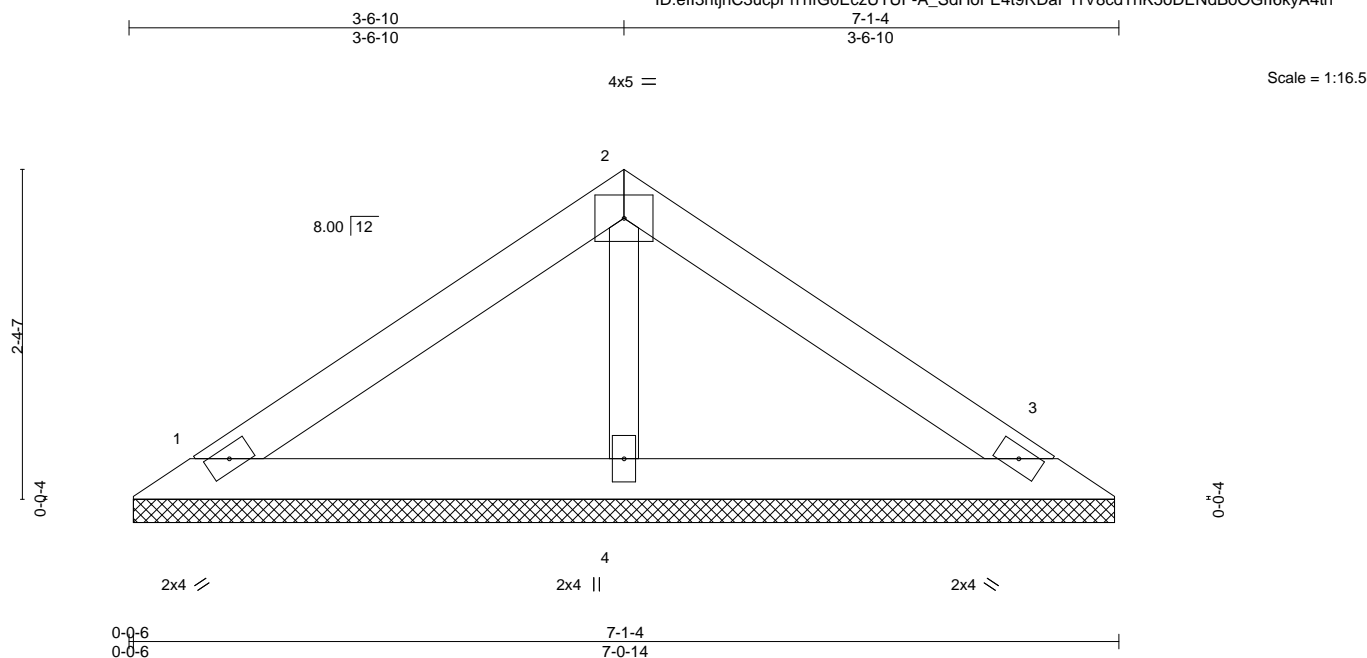
December 11, 2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) n/a - n/a 999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.08	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 3 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P		Weight: 18 lb	FT = 10%

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

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

REACTIONS. (size) 1=7-0-8, 3=7-0-8, 4=7-0-8
 Max Horz 1=-53(LC 4)
 Max Uplift 1=-34(LC 8), 3=-41(LC 9)
 Max Grav 1=156(LC 1), 3=156(LC 1), 4=242(LC 1)

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

NOTES-

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



December 11, 2020

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

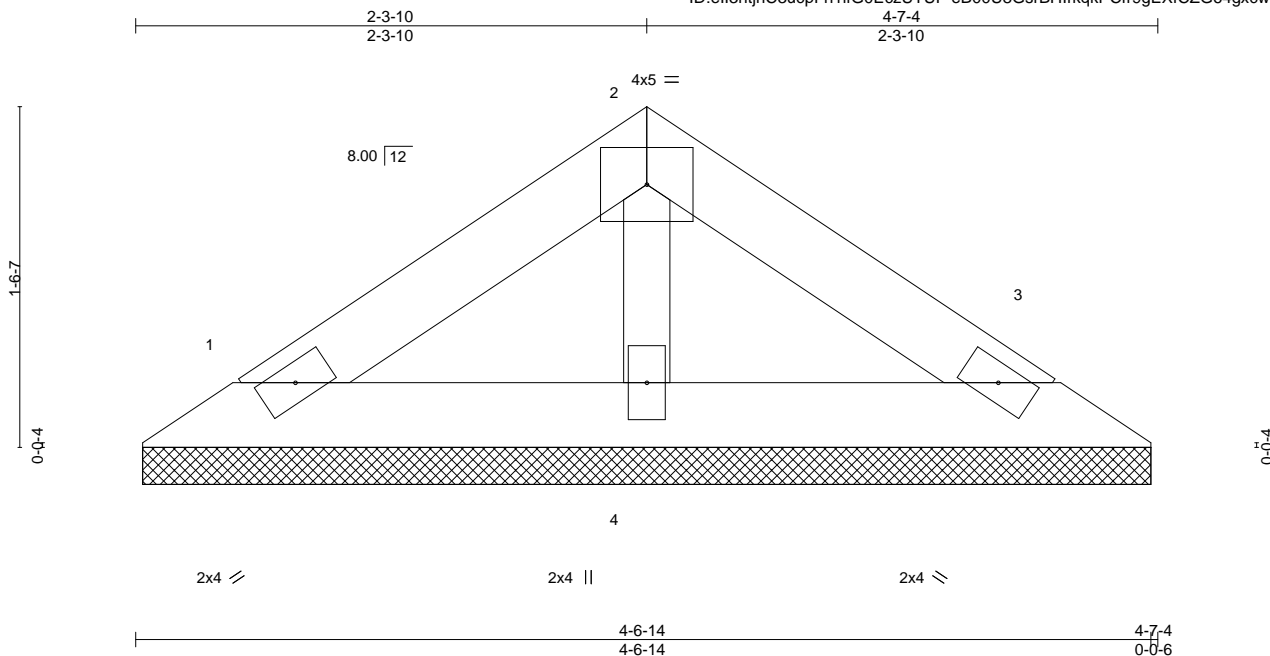


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 210383	Truss V4	Truss Type Valley	Qty 1	Ply 1	Lot 60 W2 Job Reference (optional)	I43967062
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Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:29 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EczUTUF-eB00U8GsrBHlrqkPCfr9gEXfCZG64gxcwPseByA4tm



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 11 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-6-8, 3=4-6-8, 4=4-6-8
Max Horz 1=32(LC 4)
Max Uplift 1=20(LC 8), 3=24(LC 9)
Max Grav 1=92(LC 1), 3=92(LC 1), 4=143(LC 1)

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

NOTES-

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



December 11, 2020

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

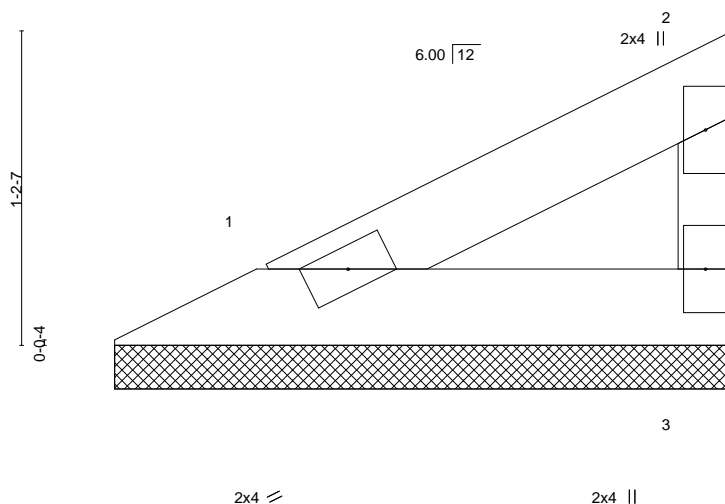
Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967063
210383	V5	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:30 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-6NaOiUGUcUP9TuPwyvA4iuniZcvarXB4ra8PBdyA4tl

2-4-13
2-4-13

Scale = 1:8.8



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 0.04	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 5 lb	FT = 10%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=2-4-5, 3=2-4-5
Max Horz 1=35(LC 5)
Max Uplift 1=-10(LC 8), 3=-18(LC 8)
Max Grav 1=75(LC 1), 3=75(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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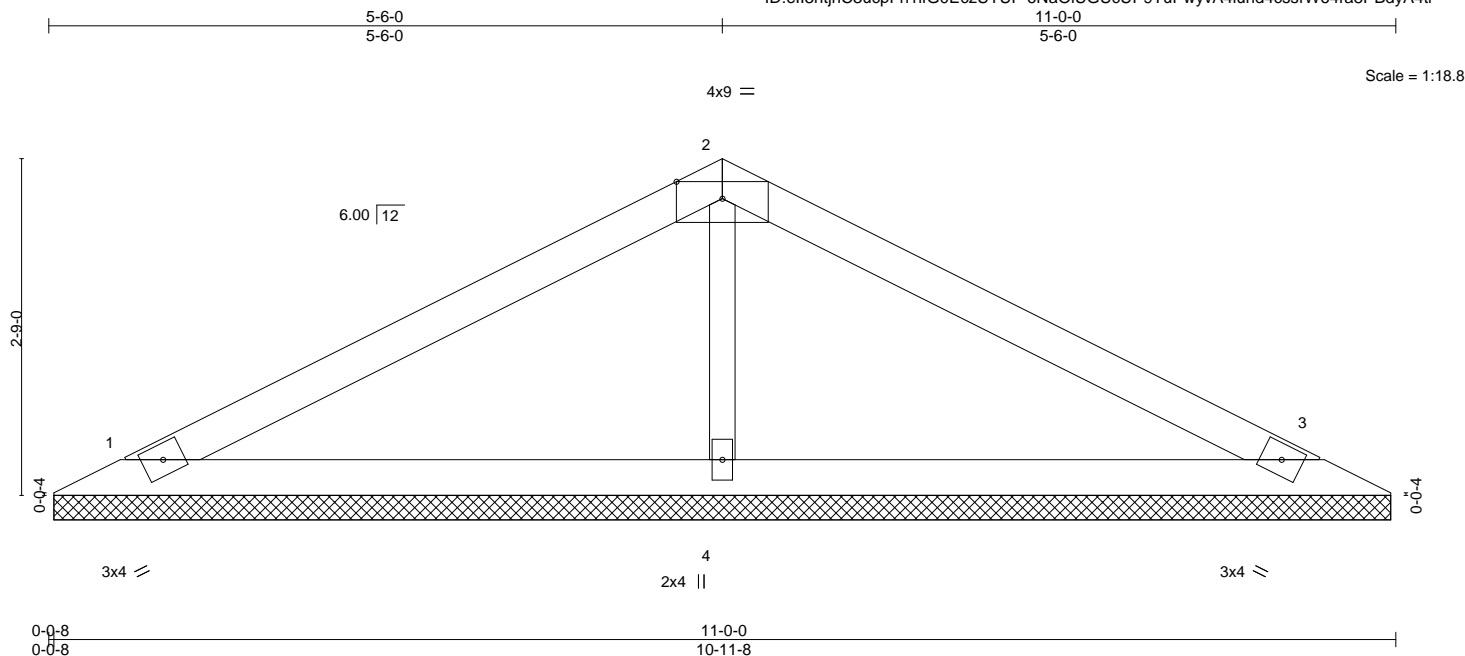


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Job	Truss	Truss Type	Qty	Ply	Lot 60 W2	I43967064
210383	V6	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:30 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EczUTUF-6NaOiUGUcUP9TuPwyvA4iund4cssrW64ra8PBdyA4tl



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 27 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=10-11-0, 3=10-11-0, 4=10-11-0
Max Horz 1=-43(LC 9)
Max Uplift 1=-42(LC 8), 3=-50(LC 9), 4=-26(LC 8)
Max Grav 1=207(LC 21), 3=207(LC 22), 4=465(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-318/83

NOTES-

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



December 11, 2020

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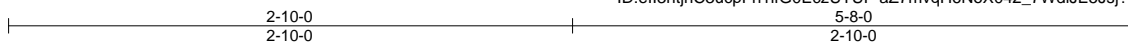


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Job 210383	Truss V7	Truss Type Valley	Qty 1	Ply 1	Lot 60 W2 Job Reference (optional)	I43967065
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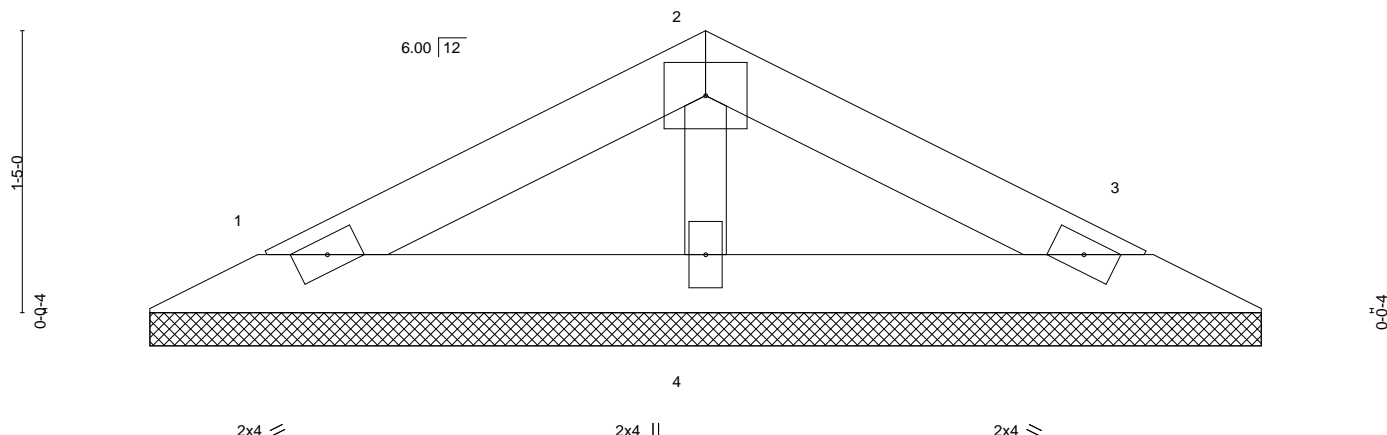
Wheeler Lumber, Waverly, KS - 66871,

8.430 s Nov 30 2020 MiTek Industries, Inc. Fri Dec 11 09:00:31 2020 Page 1
ID:ell3htjhC3ucpFh1ifG0EcZUTUF-aZ7mvqH6NoX042_7WdiJE5JsJ?FYa_2E4Euyj3yA4tk



4x5 =

Scale = 1:11.6



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL)	n/a -	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.04	Vert(CT)	n/a -	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT)	0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P					Weight: 13 lb	FT = 10%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-7-0, 3=5-7-0, 4=5-7-0
Max Horz 1=20(LC 8)
Max Uplift 1=24(LC 8), 3=27(LC 9), 4=2(LC 8)
Max Grav 1=104(LC 1), 3=104(LC 1), 4=189(LC 1)

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

NOTES-

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



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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

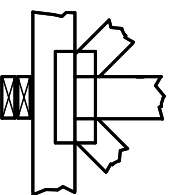
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



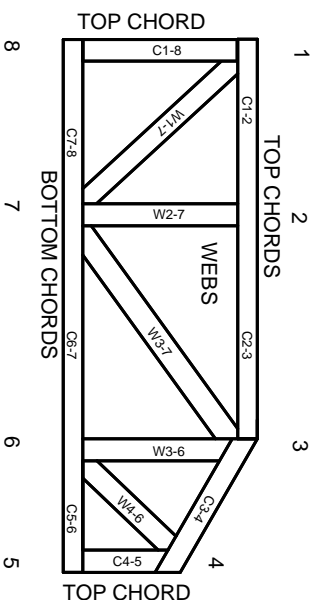
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: 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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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.