



12/09/2021

RE: H4131
Lot 131 H4

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Site Information:

Customer: Project Name: H4131
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: ASCE 7 - 16[Low Rise]
Roof Load: 45.0 psf

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

This package includes 37 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48978005	A1	11/29/2021	21	I48978025	H8	11/29/2021
2	I48978006	A2	11/29/2021	22	I48978026	J3	11/29/2021
3	I48978007	A3	11/29/2021	23	I48978027	J4	11/29/2021
4	I48978008	B1	11/29/2021	24	I48978028	J5	11/29/2021
5	I48978009	B2	11/29/2021	25	I48978029	J6	11/29/2021
6	I48978010	B3	11/29/2021	26	I48978030	K1	11/29/2021
7	I48978011	C1	11/29/2021	27	I48978031	K2	11/29/2021
8	I48978012	C2	11/29/2021	28	I48978032	P1	11/29/2021
9	I48978013	C3	11/29/2021	29	I48978033	P2	11/29/2021
10	I48978014	D1	11/29/2021	30	I48978034	P3	11/29/2021
11	I48978015	D2	11/29/2021	31	I48978035	P4	11/29/2021
12	I48978016	D3	11/29/2021	32	I48978036	V1A	11/29/2021
13	I48978017	D4	11/29/2021	33	I48978037	V2A	11/29/2021
14	I48978018	D5	11/29/2021	34	I48978038	V3A	11/29/2021
15	I48978019	D6	11/29/2021	35	I48978039	V4A	11/29/2021
16	I48978020	G1	11/29/2021	36	I48978040	V5A	11/29/2021
17	I48978021	G2	11/29/2021	37	I48978041	V6A	11/29/2021
18	I48978022	H5	11/29/2021				
19	I48978023	H6	11/29/2021				
20	I48978024	H7	11/29/2021				

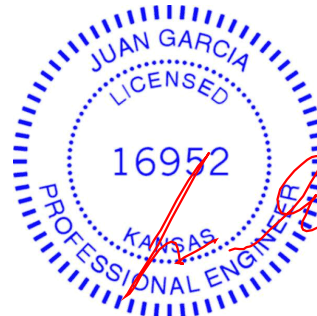
The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Wheeler - Waverly.

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.



November 29, 2021



12/09/2021

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Customer: Project Name: H4131

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State:

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

Design Code: IRC2018/TPI2014

Design Program: MiTek 20/20 8.4

Wind Code: ASCE 7 - 16[Low Rise]

Wind Speed: 115 mph

Roof Load: 45.0 psf

Floor Load: N/A psf

This package includes 37 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I48978005	A1	11/29/2021	21	I48978025	H8	11/29/2021
2	I48978006	A2	11/29/2021	22	I48978026	J3	11/29/2021
3	I48978007	A3	11/29/2021	23	I48978027	J4	11/29/2021
4	I48978008	B1	11/29/2021	24	I48978028	J5	11/29/2021
5	I48978009	B2	11/29/2021	25	I48978029	J6	11/29/2021
6	I48978010	B3	11/29/2021	26	I48978030	K1	11/29/2021
7	I48978011	C1	11/29/2021	27	I48978031	K2	11/29/2021
8	I48978012	C2	11/29/2021	28	I48978032	P1	11/29/2021
9	I48978013	C3	11/29/2021	29	I48978033	P2	11/29/2021
10	I48978014	D1	11/29/2021	30	I48978034	P3	11/29/2021
11	I48978015	D2	11/29/2021	31	I48978035	P4	11/29/2021
12	I48978016	D3	11/29/2021	32	I48978036	V1A	11/29/2021
13	I48978017	D4	11/29/2021	33	I48978037	V2A	11/29/2021
14	I48978018	D5	11/29/2021	34	I48978038	V3A	11/29/2021
15	I48978019	D6	11/29/2021	35	I48978039	V4A	11/29/2021
16	I48978020	G1	11/29/2021	36	I48978040	V5A	11/29/2021
17	I48978021	G2	11/29/2021	37	I48978041	V6A	11/29/2021
18	I48978022	H5	11/29/2021				
19	I48978023	H6	11/29/2021				
20	I48978024	H7	11/29/2021				

The truss drawing(s) referenced above have been prepared by

MiTek USA, Inc. under my direct supervision

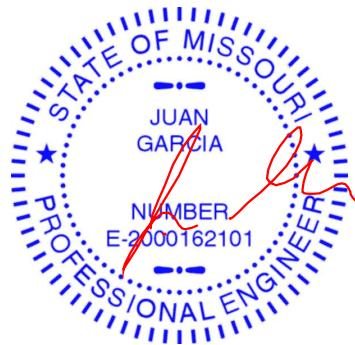
based on the parameters provided by Wheeler - Waverly.

Truss Design Engineer's Name: Garcia, Juan

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

Missouri COA: 001193

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



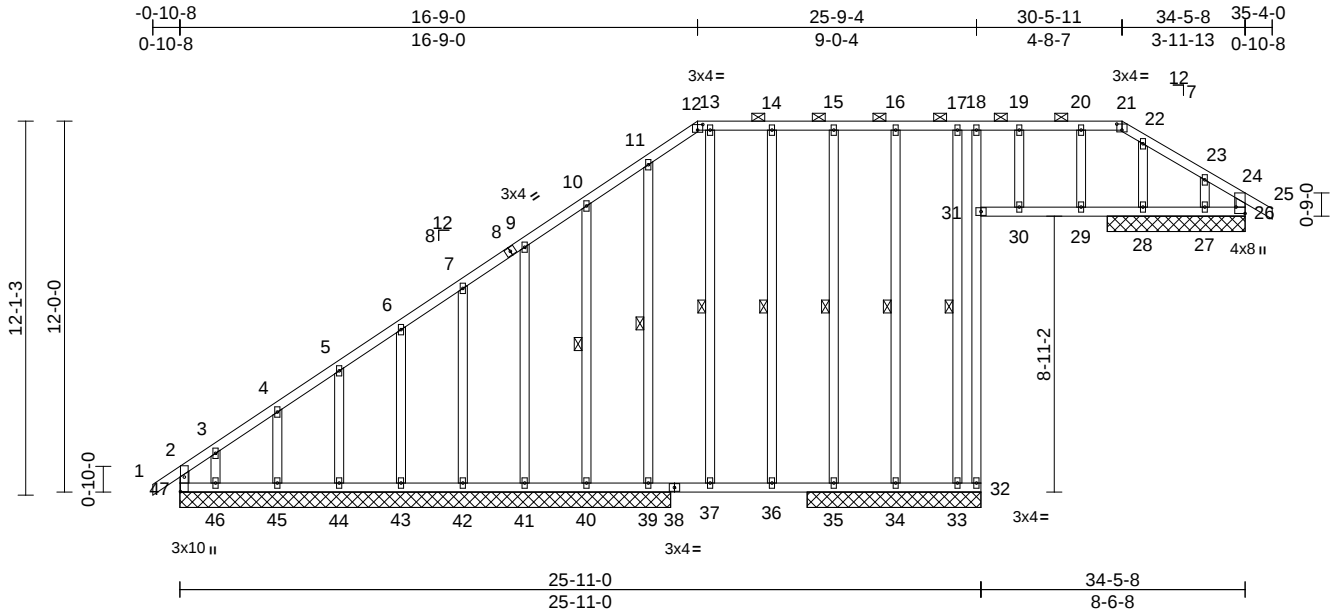
November 29, 2021

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	A1	GABLE	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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12/09/2021



Scale = 1:74.5

Plate Offsets (X, Y): [12:0-2-0,0-2-3], [21:0-2-0,0-2-5], [26:Edge,0-3-8], [47:0-5-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.04	36-37	>999	360	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.07	36-37	>999	240	
BCLL	0.0*	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.04	24	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.03	36-37	>999	240	Weight: 226 lb FT = 10%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-21.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 31-32,30-31,29-30,28-29,27-28,26-27.
WEBS	1 Row at midpt 10-40, 11-39, 13-37, 14-36, 15-35, 16-34, 17-33

REACTIONS (lb/size)

Max Horiz	47=395 (LC 8)
Max Uplift	24=50 (LC 9), 26=2 (LC 4), 27=92 (LC 21), 28=12 (LC 25), 31=74 (LC 5), 32=19 (LC 1), 33=9 (LC 4), 34=31 (LC 25), 35=122 (LC 5), 39=107 (LC 5), 40=92 (LC 27), 41=70 (LC 8), 42=71 (LC 27), 43=68 (LC 8), 44=77 (LC 27), 45=43 (LC 8), 46=340 (LC 27), 47=225 (LC 6)

FORCES

TOP CHORD

2-47=348/161, 1-2=0/40, 2-3=-522/286, 3-4=-392/230, 4-5=-332/209, 5-6=-266/185, 6-7=-201/161, 7-9=-140/138, 9-10=-117/113, 10-11=-97/116, 11-12=-109/108, 12-13=-52/106, 13-14=-52/106, 14-15=-52/106, 15-16=-52/106, 16-17=-52/106, 17-18=-52/106, 18-19=-59/101, 19-20=-59/101, 20-21=-59/101, 21-22=-106/94, 22-23=-73/80, 23-24=-80/41, 24-25=0/36, 24-26=0/0

BOT CHORD

46-47=-1/1, 45-46=-1/1, 44-45=-1/1, 43-44=-1/1, 42-43=-1/1, 41-42=-1/1, 40-41=-1/1, 39-40=-1/1, 37-39=-1/1, 36-37=-1/1, 35-36=-1/1, 34-35=-1/1, 33-34=-1/1, 32-33=-1/1, 31-32=0/0, 18-31=-275/69, 30-31=-8/36, 29-30=-8/36, 28-29=-8/36, 27-28=-8/36, 26-27=-8/36
3-46=-157/221, 4-45=-148/84, 5-44=-146/96, 6-43=-147/93, 7-42=-145/94, 9-41=-156/93, 10-40=-96/105, 11-39=-277/86, 13-37=-62/48, 14-36=-47/53, 15-35=-293/98, 16-34=-70/58, 17-33=-10/23, 19-30=-19/35, 20-29=-55/44, 22-28=-238/21, 23-27=-66/82

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) exterior 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) This truss is not designed to support a ceiling and is not intended for use where aesthetics are a consideration.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



November 29, 2021

Continued on page 2

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION
H4131	A1	GABLE	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978005 LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

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12/09/2021

- 11) Bearing at joint(s) 24, 31 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 225 lb uplift at joint 47, 2 lb uplift at joint 26, 50 lb uplift at joint 24, 19 lb uplift at joint 32, 74 lb uplift at joint 31, 340 lb uplift at joint 46, 43 lb uplift at joint 45, 77 lb uplift at joint 44, 68 lb uplift at joint 43, 71 lb uplift at joint 42, 70 lb uplift at joint 41, 92 lb uplift at joint 40, 107 lb uplift at joint 39, 122 lb uplift at joint 35, 31 lb uplift at joint 34, 9 lb uplift at joint 33, 12 lb uplift at joint 28 and 92 lb uplift at joint 27.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 17 lb down and 18 lb up at 17-1-0, and 17 lb down and 18 lb up at 19-1-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) 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 (lb/ft)
Vert: 1-2=-70, 2-12=-70, 12-21=-70, 21-24=-70, 24-25=-70, 32-47=-20, 26-31=-20
Concentrated Loads (lb)
Vert: 37=-17 (F), 36=-17 (F)

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978006 LEE'S SUMMIT, MISSOURI
H4131	A2	Piggyback Base	4	1	Job Reference (optional)	

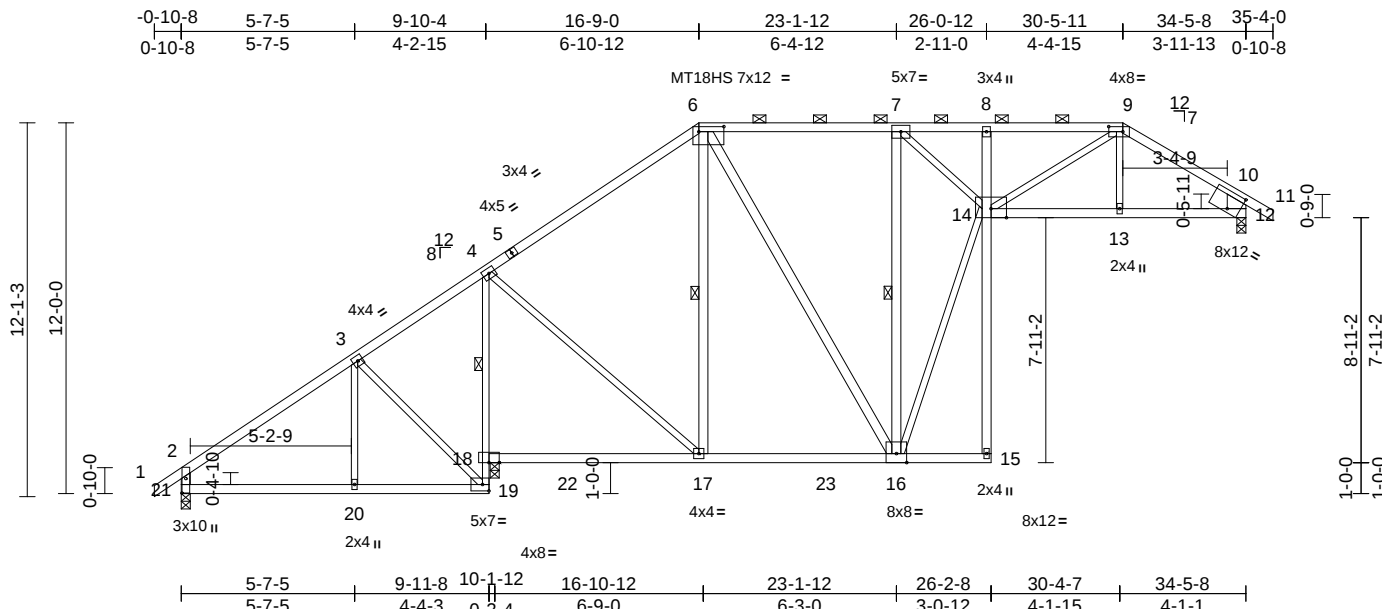
Wheeler Lumber, Waverly, KS - 66671,

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Page: 1

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Scale = 1:74.6

Plate Offsets (X, Y): [6:0-9-12,0-2-0], [9:0-5-8,0-2-0], [12:0-4-9,0-6-10], [21:0-5-10,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.79	Vert(LL)	-0.17	15	>999	360	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.28	13-14	>999	240	MT18HS 197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.89	Horz(CT)	0.15	12	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.12	15	>999	240	Weight: 174 lb FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2 *Except* 9-11:2x4 SPF 2100F 1.8E

BOT CHORD 2x4 SPF No.2 *Except* 19-4:2x3 SPF No.2

WEBS 2x3 SPF No.2 *Except*

17-6,16-6,7-16,21-2:2x4 SPF No.2,

12-10:2x8 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-13 max.): 6-9.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:

1 Row at midpt 4-18

WEBS 1 Row at midpt 6-17, 7-16

REACTIONS (lb/size) 12=1116/0-3-8, 18=1743/0-3-8, 21=356/0-3-8

Max Horiz 21=393 (LC 8)

Max Uplift 12=91 (LC 4), 18=282 (LC 8)

Max Grav 12=1146 (LC 2), 18=1903 (LC 15), 21=369 (LC 16)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-277/87, 3-4=-142/389, 4-6=-674/85, 6-7=-604/119, 7-8=-2017/332, 8-9=-2068/343, 9-10=-1483/168, 10-11=0/42, 2-21=-324/18, 10-12=-1005/110

BOT CHORD 20-21=-211/193, 19-20=-211/193, 18-19=-99/387, 4-18=-1412/225, 17-18=-259/38, 16-17=-93/459, 15-16=-2/9, 14-15=0/34, 8-14=-221/90, 13-14=-135/1172, 12-13=-138/1170

WEBS 3-20=0/254, 3-19=-498/165, 4-17=-67/915, 6-17=-401/131, 6-16=-129/347, 7-16=-1671/382, 14-16=-311/1722, 7-14=-319/1954, 9-13=-10/117, 9-14=-256/1081

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 282 lb uplift at joint 18 and 91 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

November 29, 2021

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

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

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

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Chesterfield, MO 63017

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12/09/2021

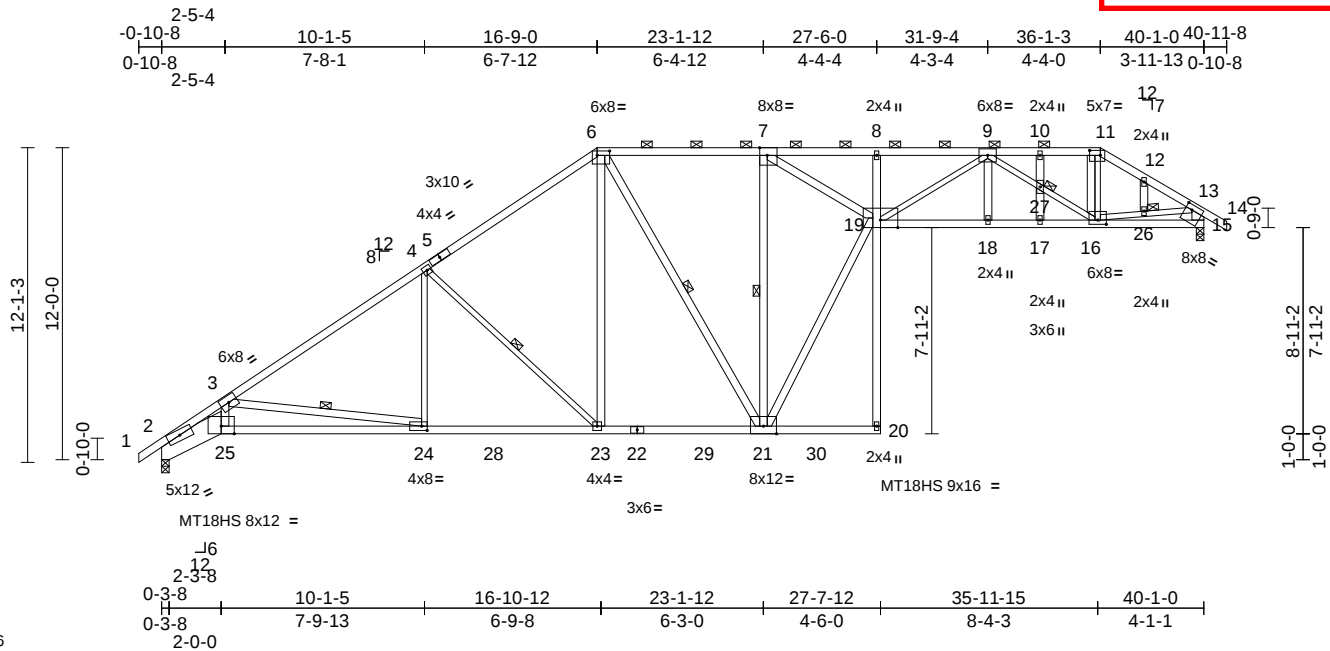


Plate Offsets (X, Y): [6:0-5-12,0-2-0], [7:0-3-8,Edge], [11:0-5-0,0-2-4], [15:0-3-0,0-2-4], [16:0-4-0,0-2-0], [24:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.99	Vent(LL)	-0.45	20	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.76	Vent(CT)	-0.76	20	>628	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.44	15	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.30	20	>999	240	Weight: 217 lb	FT = 10%

LUMBER

TOP CHORD	2x4 SPF No.2 *Except* 6-11,1-5:2x4 SPF 2100F 1.8E
BOT CHORD	2x4 SPF 2100F 1.8E *Except* 2-25:2x10 SP DSS, 20-8,22-20:2x4 SPF No.2
WEBS	2x3 SPF No.2 *Except* 25-3,24-3,21-6,21-19:2x4 SPF No.2, 23-6,7-21,19-7:2x4 SPF 2100F 1.8E, 15-13:2x6 SPF No.2
OTHERS	2x4 SPF No.2

WEBS

4-24=0/544, 4-23=-990/317, 6-23=-136/941,
6-21=-231/226, 7-21=-2964/557,
19-21=-530/3648, 7-19=-703/4836,
9-19=-271/1716, 11-16=-137/1131,
16-26=-305/2030, 13-26=-300/2003,
9-27=-2348/397, 16-27=-2399/406,
12-26=-36/203, 10-27=-73/34, 17-27=0/43,
9-18=0/163

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

LOAD CASE(S) Standard

OTHERS

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-13 max.): 6-11.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 7-6-6 oc bracing: 24-25.
WEBS	1 Row at midpt 3-24, 4-23, 6-21, 7-21
JOINTS	1 Brace at Jt(s): 26, 27

REACTIONS

(lb/size)	2=1858/0-3-8, 15=1864/0-3-8
Max Horiz	2=405 (LC 8)
Max Uplift	2=-189 (LC 8), 15=-145 (LC 5)
Max Grav	2=1967 (LC 2), 15=1963 (LC 2)

FORCES

Tension

TOP CHORD 1-2=0/19, 2-3=-5921/994, 3-4=-2975/297,
4-6=-2244/272, 6-7=-1771/248,
7-8=-5846/841, 8-9=-5876/843,
9-10=-2519/287, 10-11=-2519/287,
11-12=-2796/328, 12-13=-2957/333,
13-14=0/39, 13-15=-1865/166

BOT CHORD 2-25=-1236/5100, 24-25=-1093/4374,
23-24=-445/2409, 21-23=-245/1774,
20-21=-2/14, 19-20=0/95, 8-19=-239/104,
18-19=-625/4447, 17-18=-625/4447,
16-17=-625/4447, 15-16=-51/482

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) exterior zone cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) Gable studs spaced at 2'-0" o.c.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" 00" tall by 2'-00" 00" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 189 lb uplift at joint 2 and 145 lb uplift at joint 15.



November 29, 2021



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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	B2	Piggyback Base	3	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
148978009
LEE'S SUMMIT, MISSOURI

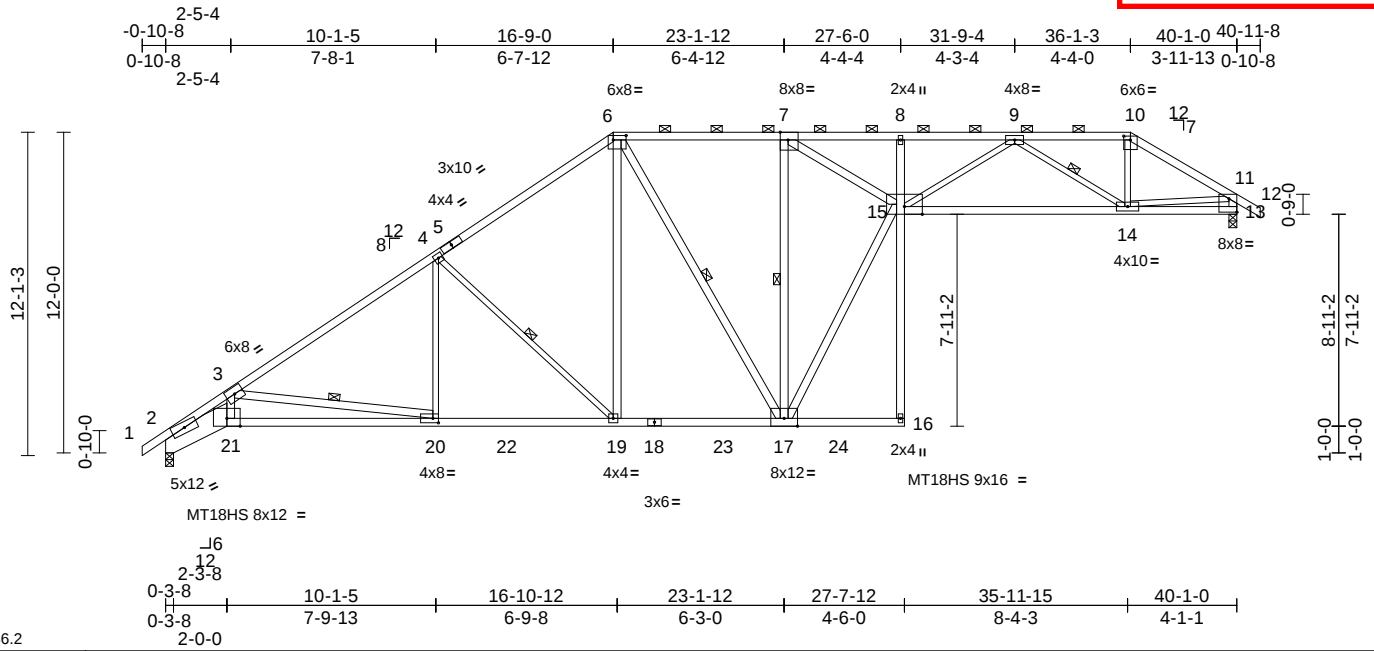
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:02

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Page: 1

12/09/2021



Scale = 1:86.2

Plate Offsets (X, Y): [6:0-5-12,0-2-0], [7:0-3-8,Edge], [10:0-3-0,0-1-12], [13:Edge,0-6-0], [20:0-2-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.46	14-15	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.82	14-15	>584	240	MT18HS	197/144
BCLL	0.0*	Rep Stress Incr	NO	WB	0.91	Horz(CT)	0.45	13	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.30	16	>999	240	Weight: 207 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E *Except* 10-12:2x4 SPF No.2
 BOT CHORD 2x4 SPF 2100F 1.8E *Except* 2-21:2x10 SP DSS, 16-8,18-16:2x4 SPF No.2
 WEBS 2x3 SPF No.2 *Except* 21-3,20-3,17-6,17-15,13-11:2x4 SPF No.2, 19-6,7-17,15-7:2x4 SPF 2100F 1.8E

WEBS

3-21=-404/2209, 3-20=-1987/657,
 4-20=0/544, 4-19=-990/317, 6-19=-136/940,
 6-17=-229/229, 7-17=-2989/562,
 15-17=-534/3673, 7-15=-712/4877,
 9-15=-217/1826, 10-14=-126/1262,
 11-14=-267/2108, 9-14=-2321/476

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 189 lb uplift at joint 2 and 153 lb uplift at joint 13.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-0-8 oc purlins, except end verticals, and 2-0-0 oc purlins (2-10-11 max.): 6-10.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 7-6-4 oc bracing: 20-21
 9-6-6 oc bracing: 14-15.
 WEBS 1 Row at midpt 3-20, 4-19, 6-17, 7-17, 9-14

REACTIONS

(lb/size) 2=1862/0-3-8, 13=1862/0-3-8
 Max Horiz 2=406 (LC 8)
 Max Uplift 2=189 (LC 8), 13=153 (LC 5)
 Max Grav 2=1971 (LC 2), 13=1961 (LC 2)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/19, 2-3=-5932/996, 3-4=-2983/297, 4-6=-2251/272, 6-7=-1780/251, 7-8=-5890/852, 8-9=-5950/845, 9-10=-2506/264, 10-11=-2923/311, 11-12=0/36, 11-13=-1920/154
 BOT CHORD 2-21=-1238/5109, 20-21=-1095/4382, 19-20=-445/2414, 17-19=-247/1780, 16-17=-3/11, 15-16=0/93, 8-15=-227/100, 14-15=-671/4429, 13-14=-74/373



November 29, 2021

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

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

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



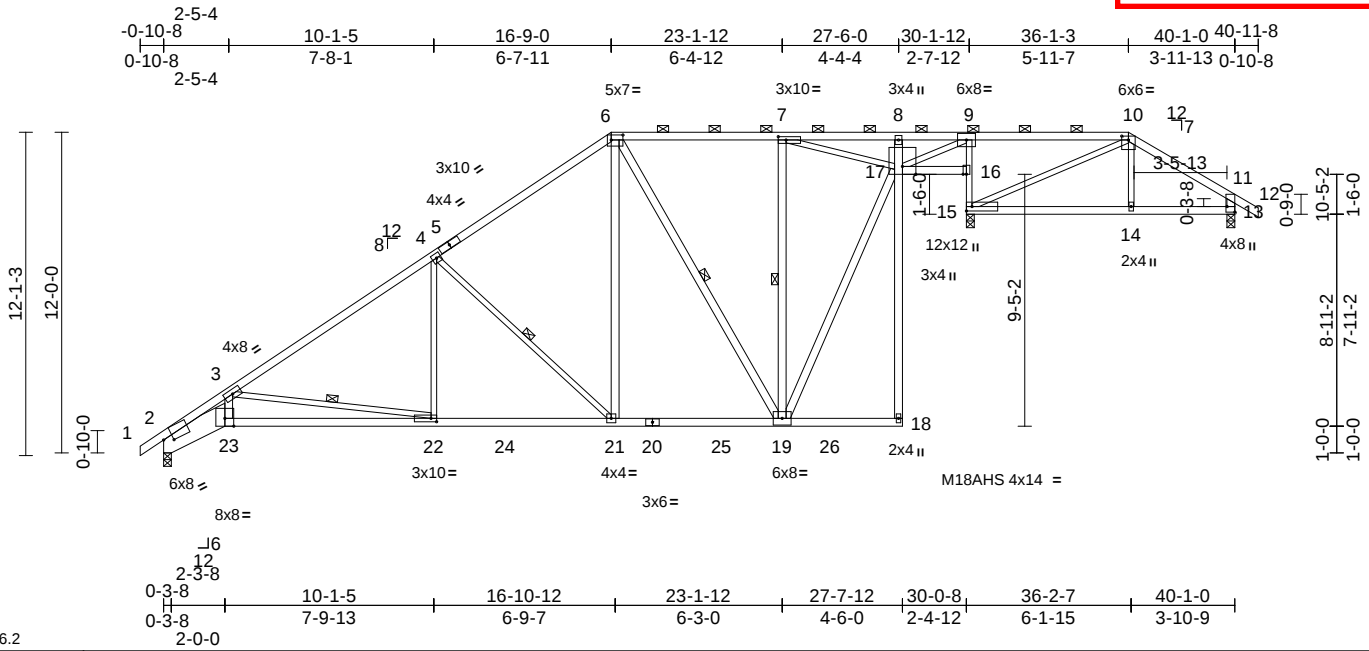
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	B3	Piggyback Base	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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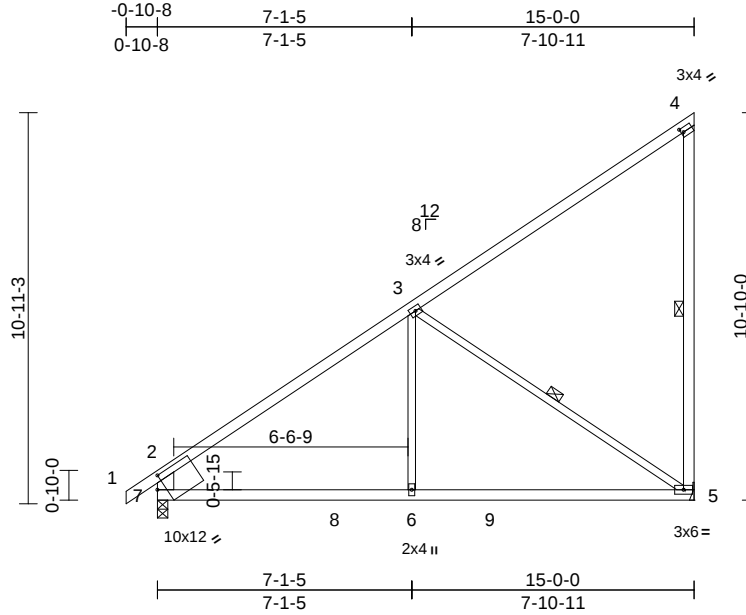


Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978011 LEE'S SUMMIT, MISSOURI
H4131	C1	Monopitch	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:03
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12/09/2021



Scale = 1:64.4

Plate Offsets (X, Y): [4:0-0-13,0-1-8], [7:0-2-11,0-4-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.12	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.24	5-6	>745	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	6-7	>999	240	Weight: 63 lb	FT = 10%

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-8-5 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 4-5, 3-5

REACTIONS (lb/size) 5=655/ Mechanical, 7=738/0-3-8
Max Horiz 7=414 (LC 8)
Max Uplift 5=-273 (LC 8)
Max Grav 5=826 (LC 15), 7=824 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/43, 2-3=-851/0, 3-4=-206/118, 4-5=-238/146, 2-7=-710/47

BOT CHORD 6-7=-252/704, 5-6=-252/704

WEBS 3-6=0/407, 3-5=-831/299

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) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 273 lb uplift at joint 5.



November 29, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

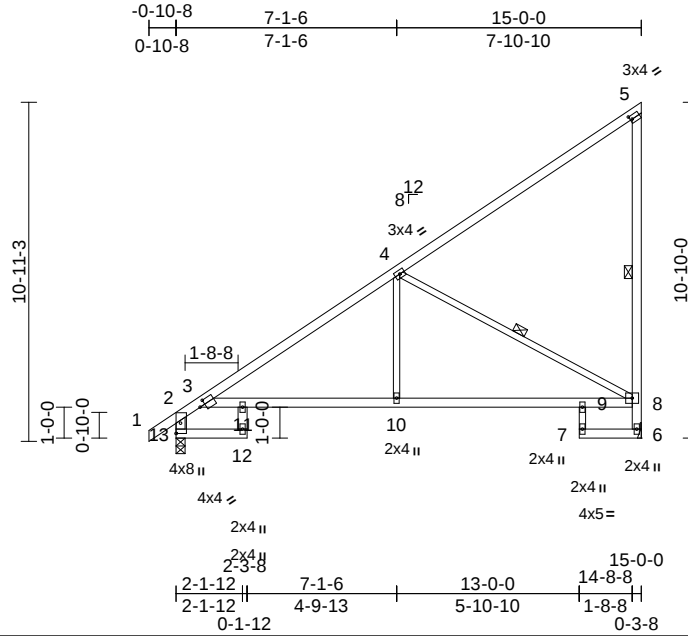
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	C2	Monopitch	5	1	Job Reference (optional)

AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
148978012
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:03
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12/09/2021



Scale = 1:74.3

Plate Offsets (X, Y): [3:0-2-2,0-1-12], [5:0-0-13,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.12	10-11	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.23	10-11	>778	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.17	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.22	10-11	>798	240	Weight: 66 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except* 9-7:2x3 SPF No.2
WEBS 2x4 SPF No.2 *Except* 4-10,8-4:2x3 SPF No.2

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 273 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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 5-6, 4-8

REACTIONS (lb/size) 6=659/ Mechanical, 13=736/0-3-8
Max Horiz 13=415 (LC 8)
Max Uplift 6=273 (LC 8)
Max Grav 6=690 (LC 15), 13=736 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/40, 2-3=-423/0, 3-4=-898/9,
4-5=-211/111, 6-8=-661/287, 5-8=-224/146,
2-13=-753/84

BOT CHORD 12-13=0/0, 3-11=-319/746, 10-11=-319/746,
9-10=-319/746, 8-9=-322/754, 7-9=0/19,
6-7=-8/2

WEBS 11-12=-63/75, 4-10=0/357, 4-8=-834/361

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) exterior zone; cantilever left and right exposed; end vertical left 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.

LOAD CASE(S) Standard

November 29, 2021

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



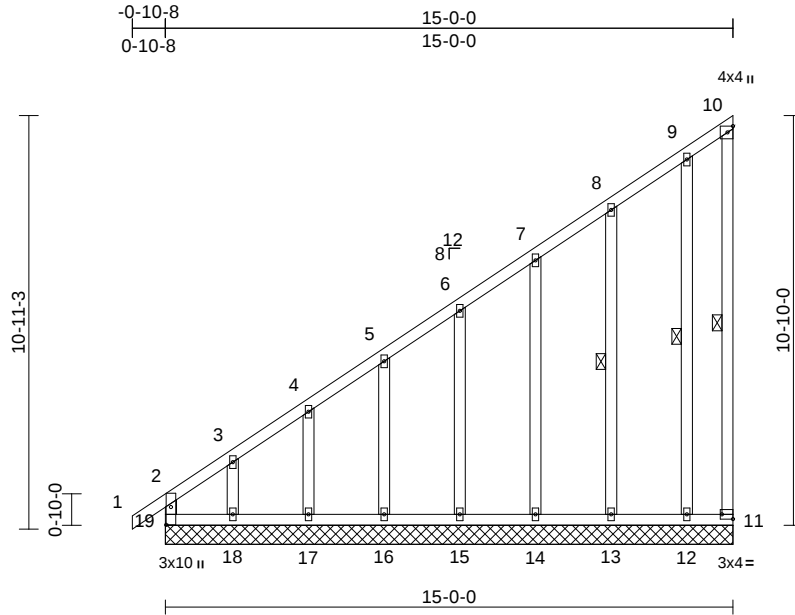
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	C3	GABLE	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:03 Page: 1
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12/09/2021



Scale = 1:60.9

Plate Offsets (X, Y): [11:Edge, 0-1-8], [19:0-5-10, 0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	n/a	-	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	11	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R						Weight: 95 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

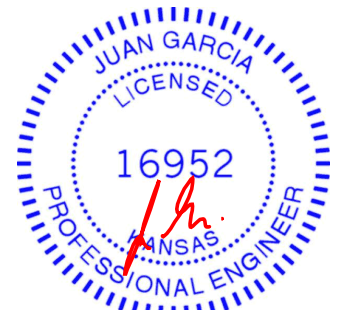
WEBS
3-18=-169/174, 4-17=-145/79, 5-16=-148/97,
6-15=-147/93, 7-14=-146/94, 8-13=-153/101,
9-12=-159/150

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 146 lb uplift at joint 19, 119 lb uplift at joint 11, 226 lb uplift at joint 18, 38 lb uplift at joint 17, 78 lb uplift at joint 16, 67 lb uplift at joint 15, 75 lb uplift at joint 14, 59 lb uplift at joint 13 and 80 lb uplift at joint 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.

LOAD CASE(S) Standard

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 10-11, 8-13, 9-12
REACTIONS (lb/size)
11=32/15-0-0, 12=148/15-0-0,
13=188/15-0-0, 14=179/15-0-0,
15=181/15-0-0, 16=178/15-0-0,
17=187/15-0-0, 18=149/15-0-0,
19=154/15-0-0
Max Horiz 19=426 (LC 5)
Max Uplift 11=-119 (LC 7), 12=-80 (LC 8),
13=-59 (LC 8), 14=-75 (LC 8),
15=-67 (LC 8), 16=-78 (LC 8),
17=-38 (LC 8), 18=-226 (LC 8),
19=-146 (LC 6)
Max Grav 11=105 (LC 4), 12=148 (LC 1),
13=200 (LC 15), 14=184 (LC 15),
15=187 (LC 15), 16=189 (LC 15),
17=187 (LC 1), 18=243 (LC 15),
19=345 (LC 5)
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-19=-269/118, 1-2=0/40, 2-3=-413/261,
3-4=-326/210, 4-5=-298/191, 5-6=-259/167,
6-7=-243/155, 7-8=-225/151, 8-9=-207/147,
9-10=-104/73, 10-11=-56/57
BOT CHORD 18-19=-149/113, 17-18=-149/113,
16-17=-149/113, 15-16=-149/113,
14-15=-149/113, 13-14=-149/113,
12-13=-149/113, 11-12=-149/113



November 29, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

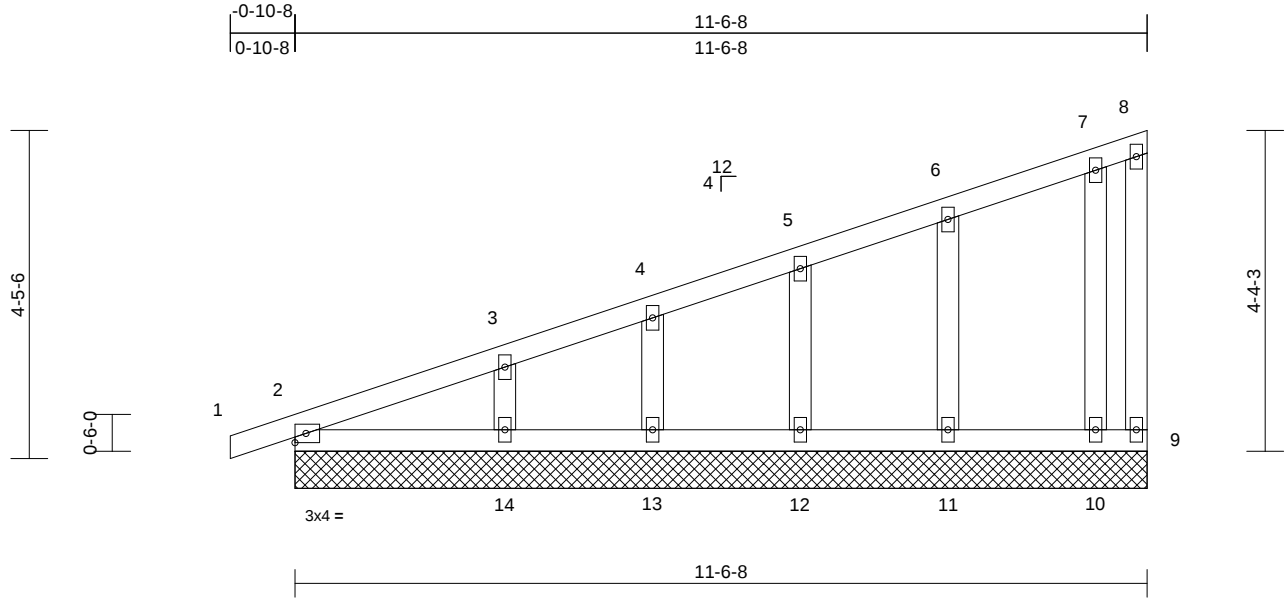
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION
H4131	D1	GABLE	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148978014
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:04

ID:CE6VMFpH?UjHlwOtSib8KqyZPwR-RIC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDofR34J3e1f

12/09/2021



Scale = 1:31.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	9	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 45 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size)	2=178/11-6-8, 9=-4/11-6-8, 10=136/11-6-8, 11=188/11-6-8, 12=184/11-6-8, 13=157/11-6-8, 14=248/11-6-8
Max Horiz	2=180 (LC 5)
Max Uplift	2=-24 (LC 4), 9=-35 (LC 7), 10=-35 (LC 4), 11=-43 (LC 8), 12=-44 (LC 8), 13=-39 (LC 4), 14=-67 (LC 8)
Max Grav	2=178 (LC 1), 9=16 (LC 4), 10=136 (LC 1), 11=188 (LC 1), 12=184 (LC 1), 13=157 (LC 1), 14=248 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/6, 2-3=-144/38, 3-4=-111/18, 4-5=-95/22, 5-6=-86/22, 6-7=-73/28, 7-8=-51/37, 8-9=-17/14
BOT CHORD	2-14=-57/43, 13-14=-57/43, 12-13=-57/43, 11-12=-57/43, 10-11=-57/43, 9-10=-57/43
WEBS	3-14=-186/96, 4-13=-125/61, 5-12=-142/68, 6-11=-147/69, 7-10=-102/47

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 35 lb uplift at joint 9, 24 lb uplift at joint 2, 67 lb uplift at joint 14, 39 lb uplift at joint 13, 44 lb uplift at joint 12, 43 lb uplift at joint 11 and 35 lb uplift at joint 10.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

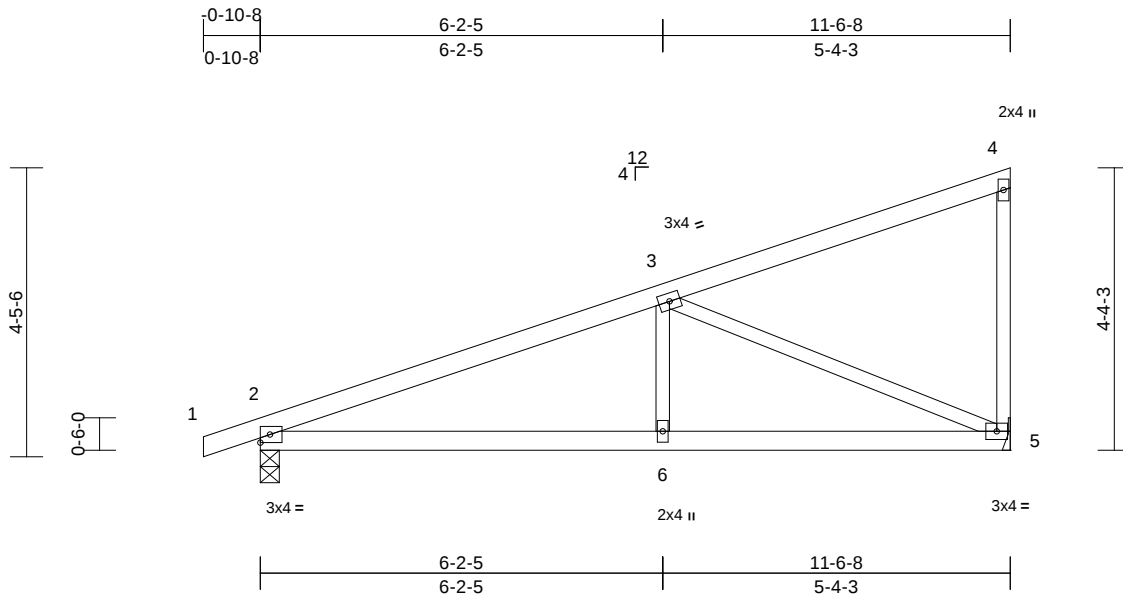
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION
H4131	D2	Monopitch	3	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148978015
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:04

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12/09/2021



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.04	2-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.09	2-6	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	2-6	>999	240	Weight: 37 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 5-7-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=583/0-3-8, 5=505/ Mechanical
Max Horiz 2=181 (LC 5)
Max Uplift 2=-126 (LC 4), 5=-109 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-877/127, 3-4=-118/26,
4-5=-140/56

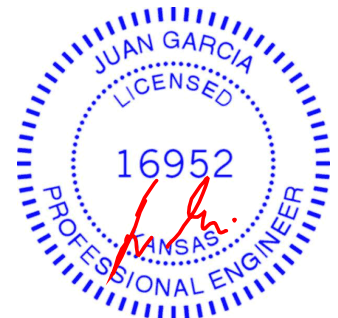
BOT CHORD 2-6=-147/760, 5-6=-147/760

WEBS 3-6=0/269, 3-5=-817/202

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) exterior 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 3-06-00 tall by 2-00-00 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 109 lb uplift at joint 5 and 126 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

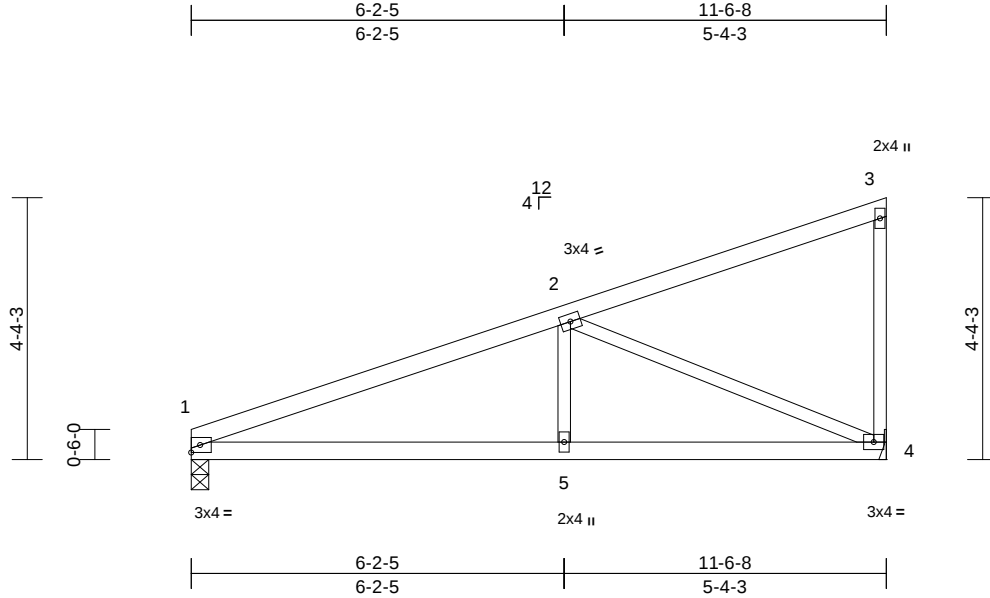
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	Job Reference (optional)
H4131	D3	Monopitch	3	1		

RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
148978016
LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:04
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12/09/2021



Scale = 1:38.3

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.46	Vert(LL)	-0.04	1-5	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.09	1-5	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.67	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.03	1-5	>999	240	Weight: 36 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=508/0-3-8, 4=508/ Mechanical
Max Horiz 1=179 (LC 5)
Max Uplift 1=-81 (LC 4), 4=-110 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-872/133, 2-3=-118/26, 3-4=-138/55
BOT CHORD 1-5=-151/772, 4-5=-151/772
WEBS 2-5=0/271, 2-4=-830/206

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) exterior 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 3-06-00 tall by 2-00-00 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 81 lb uplift at joint 1 and 110 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

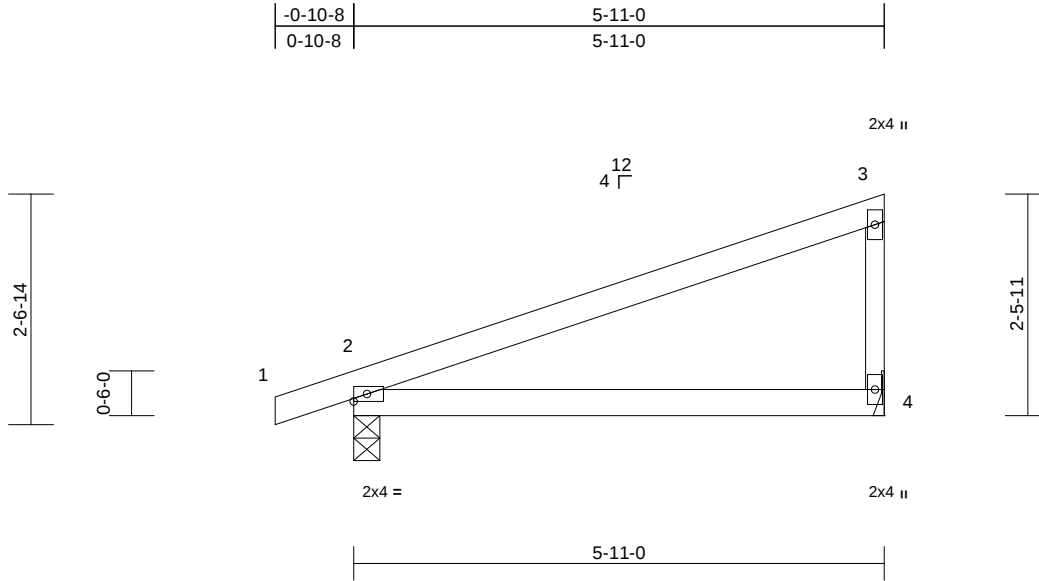
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION
H4131	D4	Monopitch	4	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148978017
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:04 Page: 1

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12/09/2021



Scale = 1:25.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.06	2-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.12	2-4	>550	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							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 5-11-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=333/0-3-8, 4=249/ Mechanical
Max Horiz 2=97 (LC 7)
Max Uplift 2=-87 (LC 4), 4=-54 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-85/54, 3-4=-192/88
BOT CHORD 2-4=-30/23

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) exterior 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 3-06-00 tall by 2-00-00 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 54 lb uplift at joint 4 and 87 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

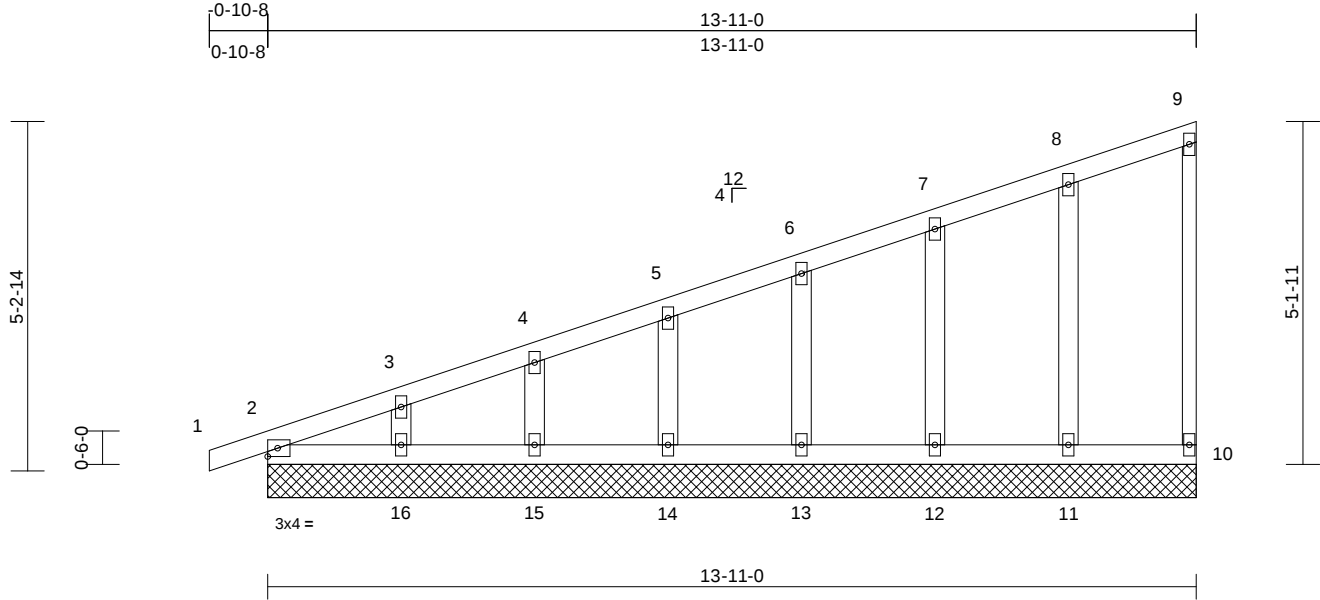
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION
H4131	D5	GABLE	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148978018
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:04 PM 2021 Page: 1

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12/09/2021



Scale = 1:34.5

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.19	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	10	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S						Weight: 53 lb	FT = 10%

LUMBER

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

BRACING

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

REACTIONS

(lb/size)	2=149/13-11-0, 10=65/13-11-0, 11=189/13-11-0, 12=179/13-11-0, 13=180/13-11-0, 14=180/13-11-0, 15=179/13-11-0, 16=182/13-11-0
Max Horiz	2=216 (LC 5)
Max Uplift	2=-5 (LC 4), 10=-19 (LC 5), 11=-45 (LC 4), 12=-42 (LC 8), 13=-43 (LC 4), 14=-43 (LC 8), 15=-44 (LC 4), 16=-56 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/6, 2-3=-181/27, 3-4=-152/22, 4-5=-132/22, 5-6=-117/22, 6-7=-105/22, 7-8=-96/22, 8-9=-76/42, 9-10=-51/24
BOT CHORD	2-16=-68/52, 15-16=-68/52, 14-15=-68/52, 13-14=-68/52, 12-13=-68/52, 11-12=-68/52, 10-11=-68/52
WEBS	3-16=-140/81, 4-15=-140/67, 5-14=-140/67, 6-13=-140/66, 7-12=-139/71, 8-11=-147/55

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 10, 5 lb uplift at joint 2, 56 lb uplift at joint 16, 44 lb uplift at joint 15, 43 lb uplift at joint 14, 43 lb uplift at joint 13, 42 lb uplift at joint 12 and 45 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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

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Chesterfield, MO 63017

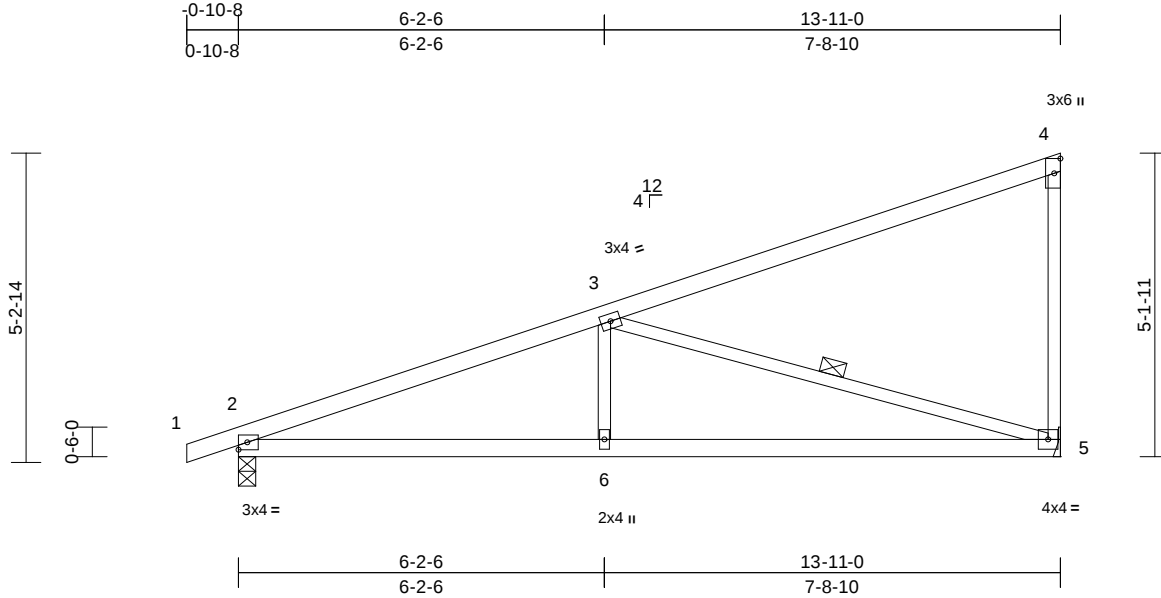
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	D6	Monopitch	2	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871,

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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
148978019
LEE'S SUMMIT, MISSOURI

12/09/2021



Scale = 1:39

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.11	5-6	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.22	5-6	>739	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.04	2-6	>999	240	Weight: 45 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 4-5-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-5

REACTIONS (lb/size) 2=689/0-3-8, 5=612/ Mechanical
Max Horiz 2=216 (LC 5)
Max Uplift 2=-143 (LC 4), 5=-132 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-1240/187, 3-4=-163/47, 4-5=-221/92
BOT CHORD 2-6=-224/1108, 5-6=-224/1108
WEBS 3-6=0/327, 3-5=-1131/278

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) exterior 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 3-06-00 tall by 2-00-00 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 132 lb uplift at joint 5 and 143 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

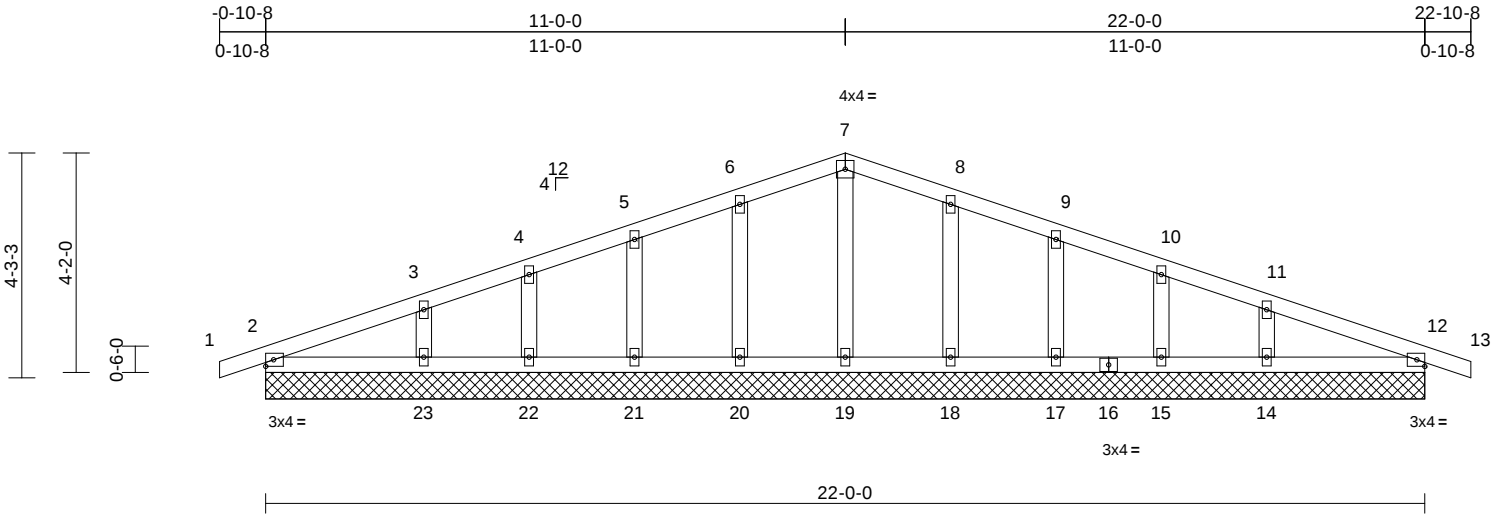
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION
H4131	G1	Common Supported Gable	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148978020
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:05 Page: 1

ID:CE6VMFpH?UjHwOtSib8KqyZPwR-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDofr343ceff

12/09/2021



Scale = 1:43.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 76 lb	FT = 10%

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

WEBS
7-19=-123/0, 6-20=-150/70, 5-21=-143/68,
4-22=-122/59, 3-23=-195/97, 8-18=-150/70,
9-17=-143/69, 10-15=-122/59, 11-14=-195/95

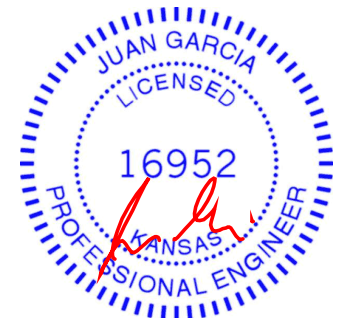
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)
2=186/22-0-0, 12=186/22-0-0,
14=261/22-0-0, 15=152/22-0-0,
17=185/22-0-0, 18=186/22-0-0,
19=163/22-0-0, 20=186/22-0-0,
21=185/22-0-0, 22=152/22-0-0,
23=261/22-0-0
Max Horiz 2=70 (LC 8)
Max Uplift 2=-44 (LC 4), 12=-53 (LC 5),
14=-65 (LC 9), 15=-38 (LC 5),
17=-44 (LC 9), 18=-46 (LC 9),
20=-46 (LC 8), 21=-44 (LC 8),
22=-38 (LC 4), 23=-67 (LC 8)
Max Grav 2=186 (LC 1), 12=186 (LC 1),
14=261 (LC 22), 15=152 (LC 22),
17=185 (LC 1), 18=189 (LC 22),
19=163 (LC 1), 20=189 (LC 21),
21=185 (LC 1), 22=152 (LC 21),
23=261 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/6, 2-3=-79/56, 3-4=-47/58, 4-5=-28/73,
5-6=-29/90, 6-7=-31/108, 7-8=-31/104,
8-9=-29/75, 9-10=-28/46, 10-11=-34/26,
11-12=-54/36, 12-13=0/6
BOT CHORD 2-23=-3/56, 22-23=-3/56, 21-22=-3/56,
20-21=-3/56, 19-20=-3/56, 18-19=-3/56,
17-18=-3/56, 15-17=-3/56, 14-15=-3/56,
12-14=-3/56

- 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) exterior 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) Gable studs spaced at 2-0-0 oc.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 2, 46 lb uplift at joint 20, 44 lb uplift at joint 21, 38 lb uplift at joint 22, 67 lb uplift at joint 23, 46 lb uplift at joint 18, 44 lb uplift at joint 17, 38 lb uplift at joint 15, 65 lb uplift at joint 14 and 53 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

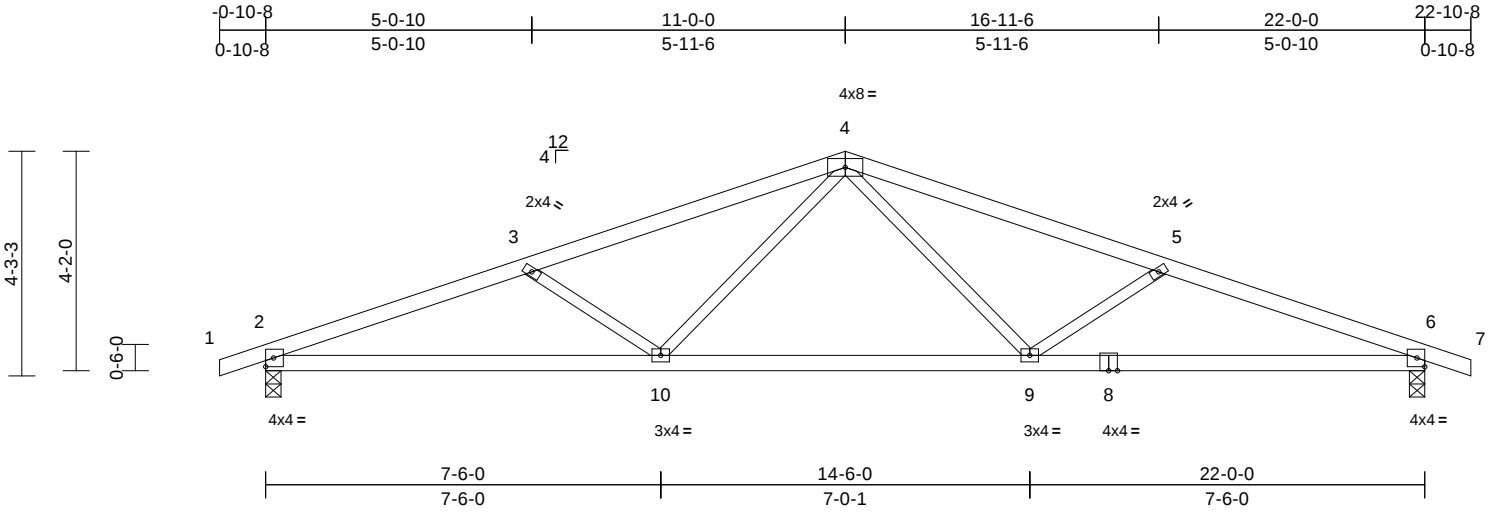
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	Job Reference (optional)
H4131	G2	Common	5	1		

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:05
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RELEASE FOR CONSTRUCTION
AS NOTED FOR PLAN REVIEW
DEVELOPMENT SERVICES
148978021
LEE'S SUMMIT, MISSOURI

12/09/2021



Scale = 1:43.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.12	9-10	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.22	2-10	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.08	9-10	>999	240	Weight: 67 lb	FT = 10%

LUMBER

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

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.

LOAD CASE(S) Standard

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-5-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=1048/0-3-8, 6=1048/0-3-8
Max Horiz 2=70 (LC 12)
Max Uplift 2=-187 (LC 4), 6=-187 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-2209/355, 3-4=-1883/253, 4-5=-1883/253, 5-6=-2209/355, 6-7=0/6
BOT CHORD 2-10=-335/2029, 9-10=-127/1384, 6-9=-283/2029
WEBS 4-9=-52/528, 5-9=-417/224, 4-10=-52/528, 3-10=-417/223

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) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 187 lb uplift at joint 2 and 187 lb uplift at joint 6.



November 29, 2021

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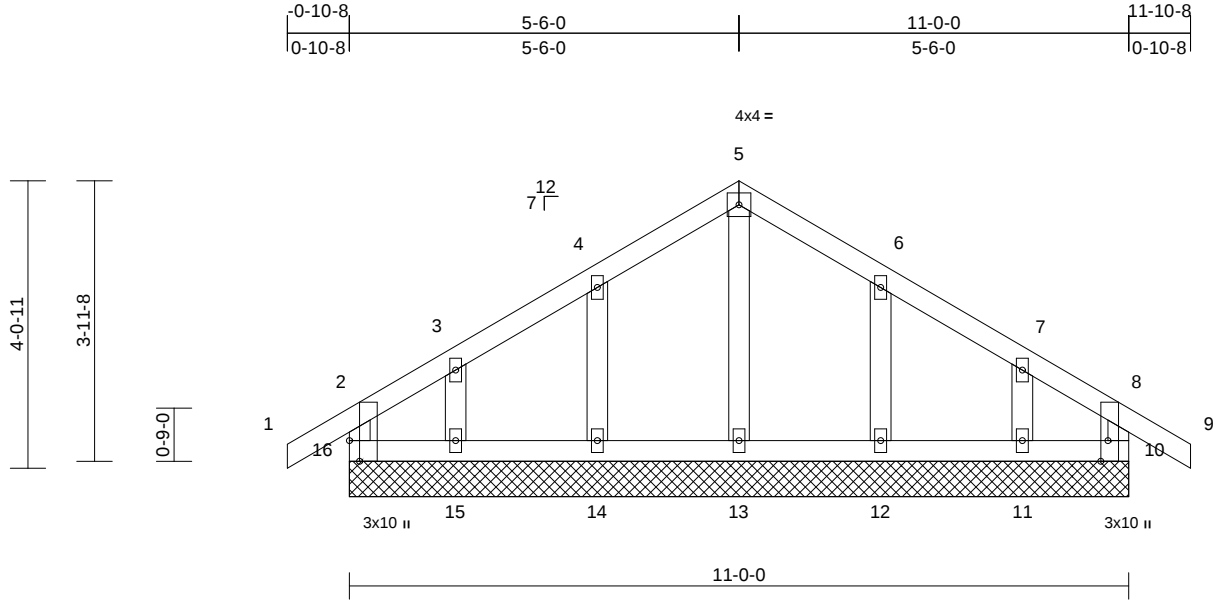
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978022 LEE'S SUMMIT, MISSOURI
H4131	H5	Common Supported Gable	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:00
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12/09/2021



Scale = 1:32.5

Plate Offsets (X, Y): [10:0-3-8,Edge], [16:0-3-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 42 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 10-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (lb/size)	10=136/11-0-0, 11=133/11-0-0, 12=197/11-0-0, 13=174/11-0-0, 14=197/11-0-0, 15=133/11-0-0, 16=136/11-0-0
	Max Horiz 16=-117 (LC 6)
Max Uplift	10=-19 (LC 8), 11=-66 (LC 9), 12=-65 (LC 9), 14=-65 (LC 8), 15=-70 (LC 8), 16=-34 (LC 4)
	Max Grav 10=140 (LC 22), 11=155 (LC 16), 12=201 (LC 16), 13=174 (LC 1), 14=200 (LC 21), 15=163 (LC 15), 16=140 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

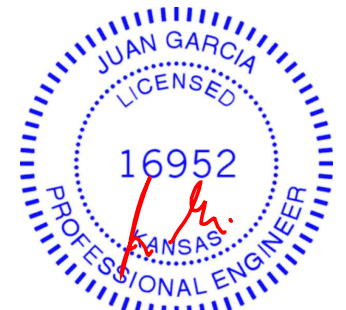
TOP CHORD	2-16=-125/31, 1-2=0/36, 2-3=-66/68, 3-4=-48/72, 4-5=-42/96, 5-6=-33/87, 6-7=-32/65, 7-8=-41/50, 8-9=0/36, 8-10=-125/24
BOT CHORD	15-16=-52/56, 14-15=-52/56, 13-14=-52/56, 12-13=-52/56, 11-12=-52/56, 10-11=-52/56
WEBS	5-13=-135/0, 4-14=-160/91, 3-15=-119/81, 6-12=-160/91, 7-11=-115/79

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 16, 19 lb uplift at joint 10, 65 lb uplift at joint 14, 70 lb uplift at joint 15, 65 lb uplift at joint 12 and 66 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

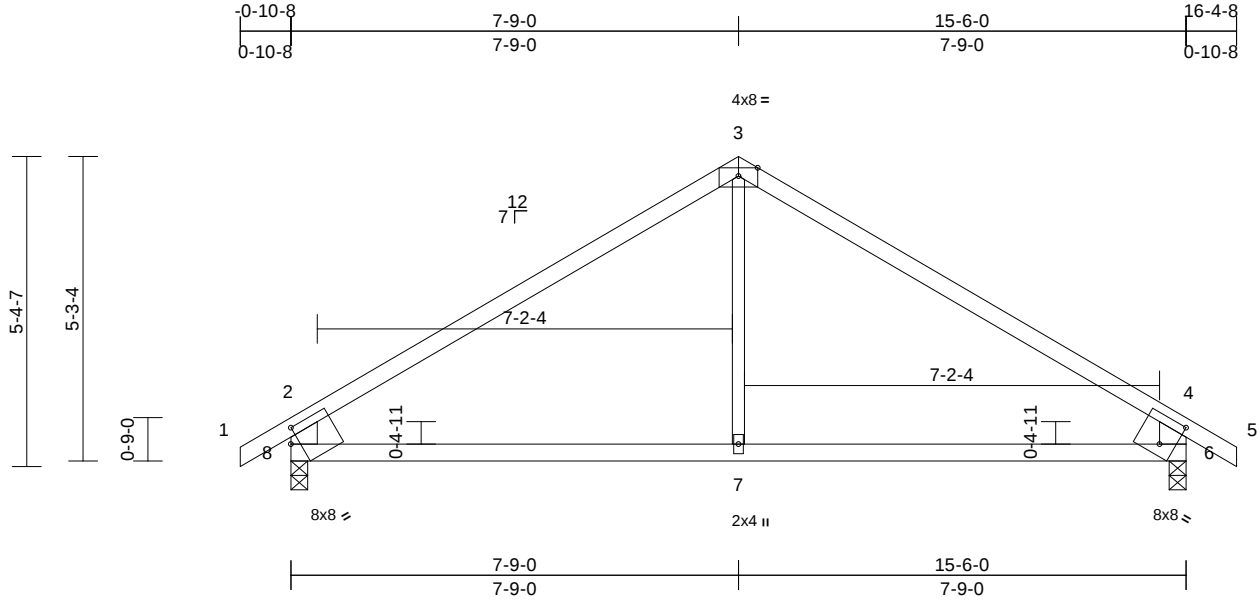
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978024 LEE'S SUMMIT, MISSOURI
H4131	H7	Common	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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12/09/2021



Scale = 1:39.9

Plate Offsets (X, Y): [6:0-3-1,0-5-11], [8:0-1-11,0-2-15]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.06	7-8	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.13	7-8	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R		Wind(LL)	0.05	7-8	>999	240	Weight: 46 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x6 SPF No.2 *Except* 7-3:2x3 SPF No.2

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS (lb/size) 6=754/0-3-8, 8=754/0-3-8
Max Horiz 8=153 (LC 7)
Max Uplift 6=-105 (LC 9), 8=-105 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/39, 2-3=-802/121, 3-4=-802/121, 4-5=0/39, 2-8=-694/163, 4-6=-694/163
BOT CHORD 7-8=-13/569, 6-7=-13/569
WEBS 3-7=0/332

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 8 and 105 lb uplift at joint 6.



November 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

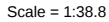
Wheeler Lumber, Waverly, KS - 66871,

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Page: 1

12/09/2021



Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.88	Vent(LL)	-0.08	1-4	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.50	Vent(CT)	-0.16	1-4	>999	240		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.07	1-4	>999	240	Weight: 125 lb	FT = 10%

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x6 SP 2400F 2.0E
WEBS	2x4 SPF No.2
WEDGE	Left: 2x3 SPF No.2 Right: 2x3 SPF No.2

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

(lb/size) 1=2639/0-3-8, 3=2485/0-3-8
Max Horiz 1=127 (LC 26)
Max Uplift 1=-455 (LC 8), 3=-426 (LC 9)

(lb) or less except when shown.

TOP CHORD	1-2=-3193/562, 2-3=-3194/562
BOT CHORD	1-4=-401/2577, 3-4=-401/2577
WEBS	2-4=-398/2731

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust)
Vasd=91mph; TCDF=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- 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 3-06-00 tall by 2-00-00 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 455 lb uplift at joint 1 and 426 lb uplift at joint 3.
- 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/TP1 1.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 536 lb down and 103 lb up at 1-5-4, 536 lb down and 103 lb up at 3-5-4, 536 lb down and 103 lb up at 5-5-4, 536 lb down and 103 lb up at 7-5-4, 536 lb down and 103 lb up at 9-5-4, and 536 lb down and 103 lb up at 11-5-4, and 536 lb down and 103 lb up at 13-5-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

1) Dead + Roof Live (balanced): Lumber Increase=1.15,
Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-70, 2-3=-70, 1-3=-20
Concentrated Loads (lb)
Vert: 5=-536 (B), 6=-536 (B), 7=-536 (B), 8=-536 (B),
9=-536 (B), 10=-536 (B), 11=-536 (B)



November 29, 2021



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

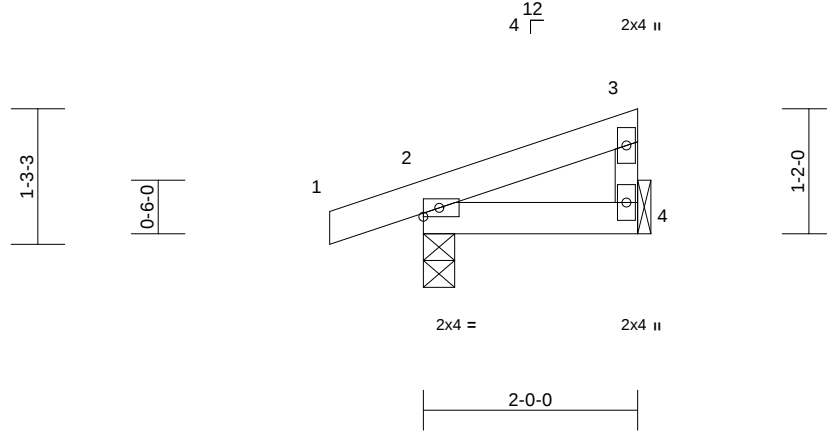
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978026 LEE'S SUMMIT, MISSOURI
H4131	J3	Jack-Closed	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:07
ID:CE6VMFpH?UjHlwOtSib8KqyZPwR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDofr343c4f Page: 1

12/09/2021

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



Scale = 1:21.5

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

LUMBER

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

BRACING

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

REACTIONS (lb/size) 2=163/0-3-8, 4=69/ Mechanical
Max Horiz 2=39 (LC 5)
Max Uplift 2=-60 (LC 4), 4=-14 (LC 8)

FORCES (lb) - Maximum Compression/Maximum
Tension

TOP CHORD 1-2=0/6, 2-3=-41/15, 3-4=-50/26
BOT CHORD 2-4=-12/9

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) exterior 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
3-06-00 tall by 2-00-00 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 14 lb uplift at joint
4 and 60 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2021

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

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

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

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

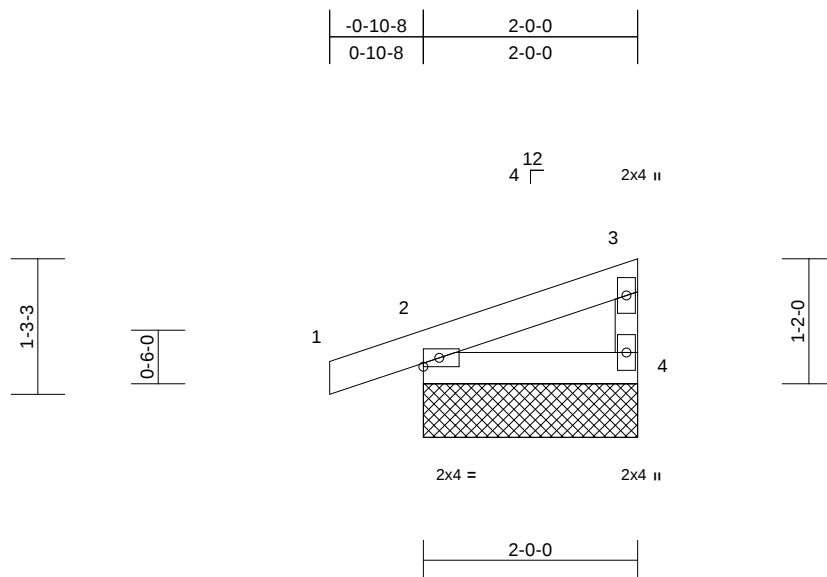


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871.

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:07 Page: 1
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12/09/2021



Scale = 1:21.5

[illegible]

LUMBER

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

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

LOAD CASE(S) Standard

BRACING

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

REACTIONS

(lb/size) 2=161/2-0-0, 4=71/2-0-0
Max Horiz 2=39 (LC 5)
Max Uplift 2=-58 (LC 4), 4=-15 (LC 8)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-40/16, 3-4=-52/26
BOT CHORD 2-4=-12/9

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) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2'-0" o.c.
- 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'-0" tall by 2'-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 15 lb uplift at joint 4 and 58 lb uplift at joint 2.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



November 29, 2021



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



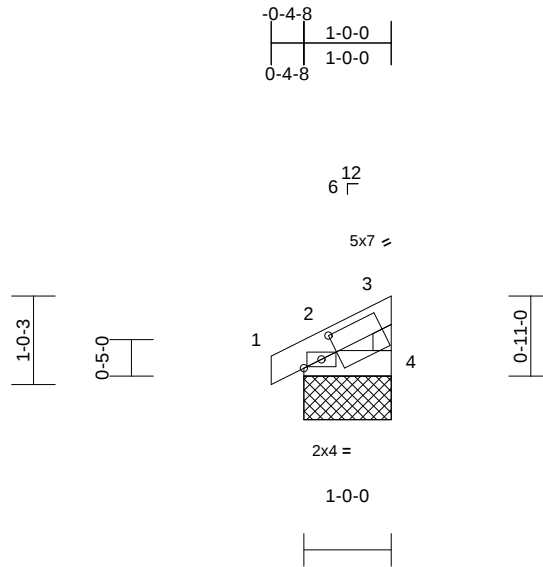
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978028 LEE'S SUMMIT, MISSOURI
H4131	J5	Jack-Closed Supported Gable	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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ID:CE6VMFpH?UjHlw0tSib8KqyZPwR-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrcDofR34L3Cef Page: 1

12/09/2021



Scale = 1:26.4

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

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

LUMBER

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

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

LOAD CASE(S) Standard**BRACING**

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

REACTIONS (lb/size) 2=106/1-0-0, 4=6/1-0-0

Max Horiz 2=25 (LC 7)

Max Uplift 2=-26 (LC 8), 4=-9 (LC 16)

Max Grav 2=106 (LC 1), 4=12 (LC 4)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/6, 2-3=-37/10, 3-4=-9/14

BOT CHORD 2-4=-8/6

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 2-0-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 9 lb uplift at joint 4 and 26 lb uplift at joint 2.



November 29, 2021

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

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

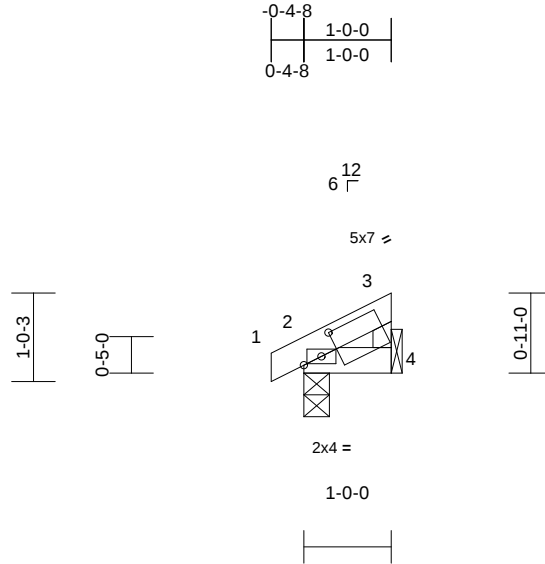
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978029 LEE'S SUMMIT, MISSOURI
H4131	J6	Jack-Closed	2	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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12/09/2021



Scale = 1:26.4

Plate Offsets (X, Y): [3:0-5-0,0-2-8]												
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	0.00	2	>999	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	0.00	2	>999	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 3 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 1-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size) 2=74/0-3-8, 4=32/ Mechanical
Max Horiz 2=25 (LC 5)
Max Uplift 2=-15 (LC 8), 4=-9 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/5, 2-3=-26/10, 3-4=-24/14
BOT CHORD 2-4=-8/6

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) exterior 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 3-06-00 tall by 2-00-00 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 9 lb uplift at joint 4 and 15 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2021

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

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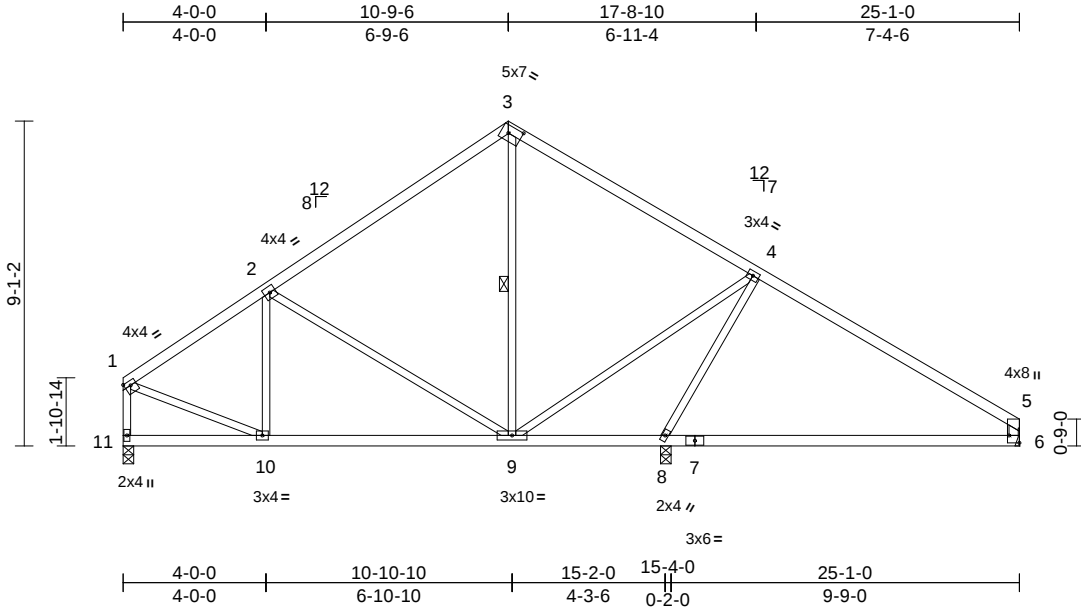
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978030 LEE'S SUMMIT, MISSOURI
H4131	K1	Roof Special	7	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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12/09/2021



Scale = 1:64.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.20	6-8	>602	360	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.39	6-8	>305	240		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S		Wind(LL)	0.02	9-10	>999	240	Weight: 95 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF 2100F 1.8E
WEBS 2x3 SPF No.2 *Except* 6-5:2x4 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 8-9.

WEBS 1 Row at midpt 3-9

REACTIONS (lb/size) 6=556/ Mechanical, 8=930/0-3-8, 11=748/0-3-8
Max Horiz 11=-251 (LC 4)
Max Uplift 6=-91 (LC 9), 8=-83 (LC 9), 11=-82 (LC 8)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-747/98, 2-3=-553/174, 3-4=-537/159, 4-5=-601/142, 1-11=-725/92, 5-6=-465/148
BOT CHORD 10-11=-220/236, 9-10=-128/685, 8-9=-10/188, 6-8=-36/424
WEBS 2-10=-122/102, 2-9=-362/193, 3-9=-25/205, 1-10=-54/644, 4-9=-112/468, 4-8=-868/212

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) exterior 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 3-06-00 tall by 2-00-00 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 82 lb uplift at joint 11, 91 lb uplift at joint 6 and 83 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

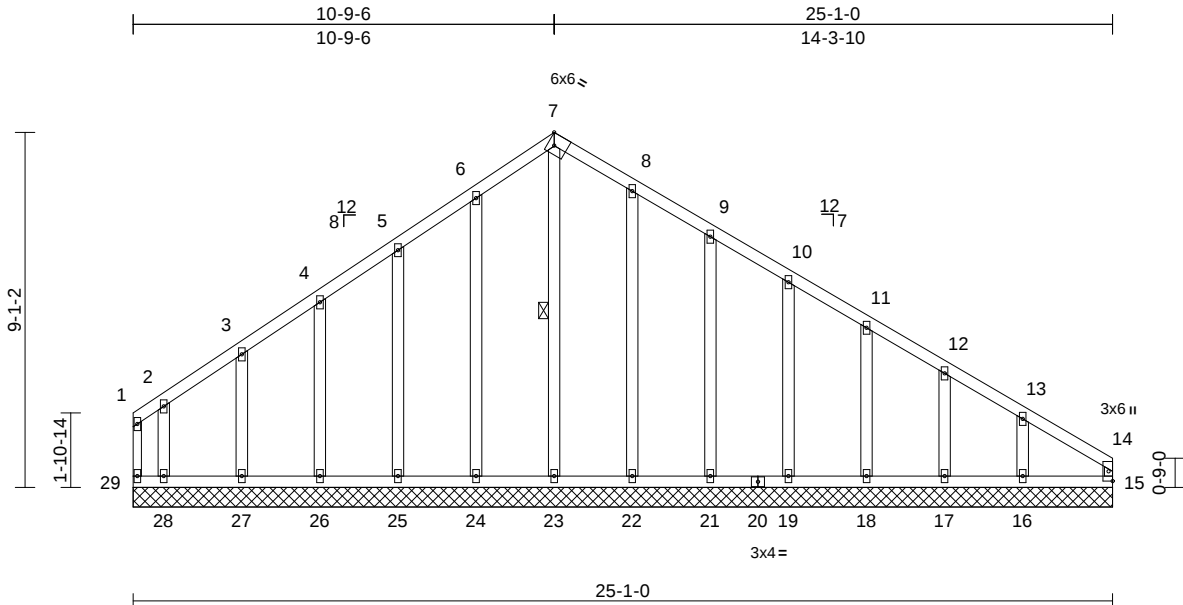
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	K2	Roof Special Supported Gable	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66671,

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12/09/2021



Scale = 1:59

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horiz(TL)	0.01	15	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-R							
Weight: 130 lb FT = 10%											

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 7-23

REACTIONS (lb/size)
15=83/25-1-0, 16=215/25-1-0,
17=170/25-1-0, 18=182/25-1-0,
19=180/25-1-0, 21=179/25-1-0,
22=187/25-1-0, 23=162/25-1-0,
24=187/25-1-0, 25=179/25-1-0,
26=179/25-1-0, 27=187/25-1-0,
28=135/25-1-0, 29=13/25-1-0

Max Horiz 29=251 (LC 4)

Max Uplift 15=125 (LC 5), 16=127 (LC 9),
17=43 (LC 9), 18=66 (LC 9),
19=60 (LC 9), 21=65 (LC 9),
22=56 (LC 9), 23=29 (LC 6),
24=63 (LC 8), 25=75 (LC 8),
26=69 (LC 8), 27=71 (LC 8),
28=121 (LC 8), 29=99 (LC 6)

Max Grav 15=187 (LC 6), 16=273 (LC 16),
17=170 (LC 1), 18=191 (LC 16),
19=183 (LC 16), 21=182 (LC 16),
22=196 (LC 16), 23=264 (LC 8),
24=192 (LC 15), 25=187 (LC 15),
26=186 (LC 15), 27=191 (LC 15),
28=216 (LC 15), 29=111 (LC 5)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-29=-58/45, 1-2=-67/44, 2-3=-45/68, 3-4=-59/106, 4-5=-76/149, 5-6=-93/217, 6-7=-114/278, 7-8=-124/281, 8-9=-143/255, 9-10=-158/222, 10-11=-173/192, 11-12=-189/194, 12-13=-201/193, 13-14=-234/222, 14-15=-146/109
BOT CHORD	28-29=-192/207, 27-28=-192/207, 26-27=-192/207, 25-26=-192/207, 24-25=-192/207, 23-24=-192/207, 22-23=-192/207, 21-22=-192/207, 19-21=-192/207, 18-19=-192/207, 17-18=-192/207, 16-17=-192/207, 15-16=-192/207
WEBS	7-23=-240/69, 6-24=-152/87, 5-25=-147/99, 4-26=-146/92, 3-27=-152/97, 2-28=-143/108, 8-22=-156/80, 9-21=-142/89, 10-19=-144/84, 11-18=-148/88, 12-17=-133/74, 13-16=-195/125

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal bracing).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) on truss to bearing plate capable of withstanding 99 lb uplift at joint 29, 125 lb uplift at joint 15, 29 lb uplift at joint 23, 63 lb uplift at joint 24, 75 lb uplift at joint 25, 69 lb uplift at joint 26, 71 lb uplift at joint 27, 121 lb uplift at joint 28, 56 lb uplift at joint 22, 65 lb uplift at joint 21, 60 lb uplift at joint 19, 66 lb uplift at joint 18, 43 lb uplift at joint 17 and 127 lb uplift at joint 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.1.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 29, 2021

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

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

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



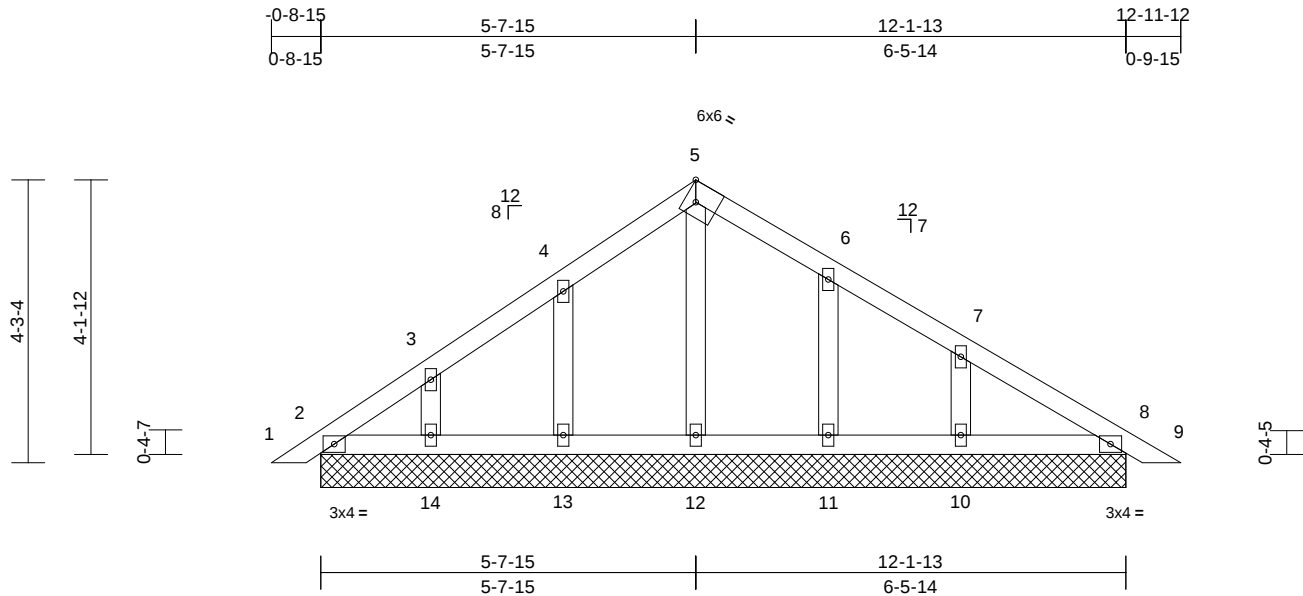
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4
H4131	P1	Piggyback	1	1	Job Reference (optional)

Wheeler Lumber, Waverly, KS - 66871.

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:08 Page: 1
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12/09/2021



Scale = 1:34.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 44 lb	FT = 10%

LUMBER

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

	10=229/12-1-13, 11=172/12-1-13, 12=150/12-1-13, 13=188/12-1-13, 14=174/12-1-13
Max Horiz	2=-107 (LC 6)
Max Uplift	2=-17 (LC 4), 8=-9 (LC 9), 10=-79 (LC 9), 11=-60 (LC 9), 13=-76 (LC 8), 14=-70 (LC 8)
Max Grav	2=109 (LC 16), 8=144 (LC 1), 10=236 (LC 16), 11=178 (LC 16), 12=152 (LC 18), 13=198 (LC 15), 14=182 (LC 15)

FORCES

Tension

TOP CHORD 1-2=0/17, 2-3=-94/81, 3-4=-87/63,
4-5=-75/99, 5-6=-58/87, 6-7=-57/41,
7-8=-71/46, 8-9=0/17

BOT CHORD 2-14=-33/73, 13-14=-33/73, 12-13=-33/73,
11-12=-33/73, 10-11=-33/73, 8-10=-33/73
5-12=-110/0, 4-13=-159/100, 3-14=-139/91,
6-11=-144/84, 7-10=-176/104

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) exterior 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/ITPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 2, 9 lb uplift at joint 8, 76 lb uplift at joint 13, 70 lb uplift at joint 14, 60 lb uplift at joint 11 and 79 lb uplift at joint 10.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/ITPI 1.
- 11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



November 29, 2021



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

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



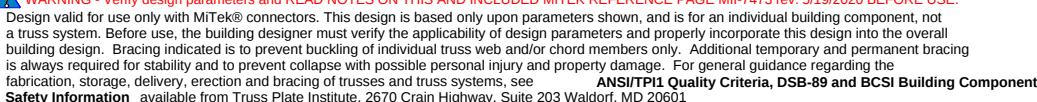
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:06:09 12/09/2021
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[illegible]

LOAD CASE(S) Standard



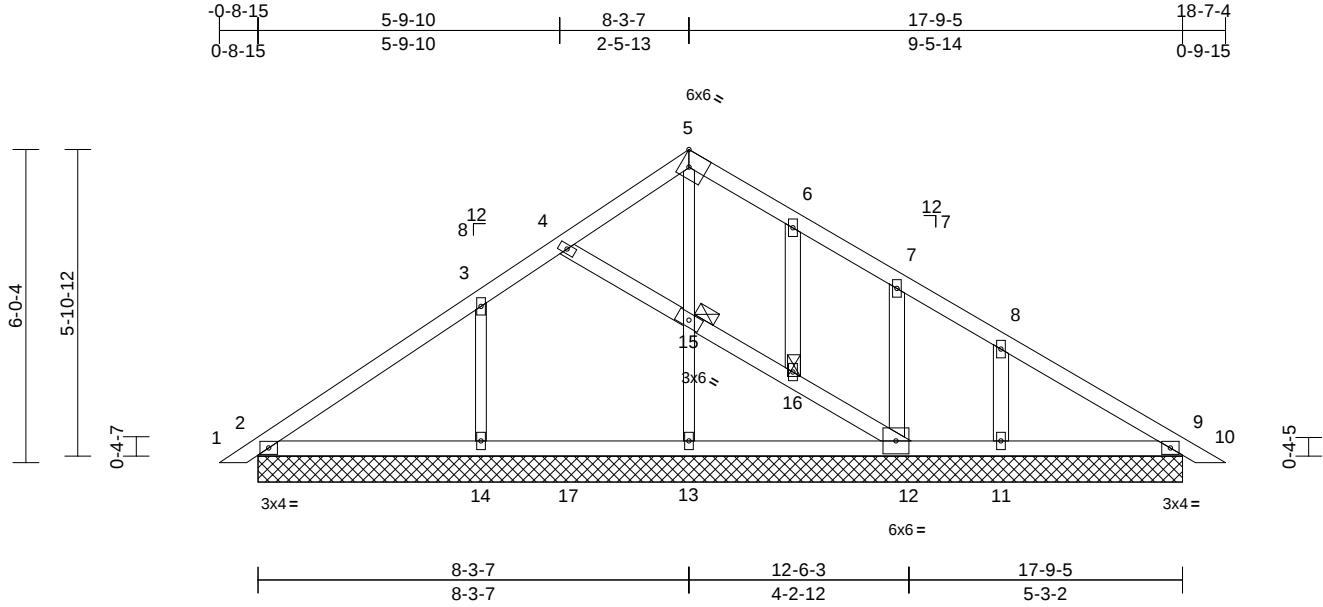
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION
H4131	P3	Piggyback	1	1	Job Reference (optional)	AS NOTED FOR PLAN REVIEW
						DEVELOPMENT SERVICES
						148978034
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66671,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:05 Page: 1

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12/09/2021



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	9	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 70 lb	FT = 10%

LUMBER

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2 *Except* 13-5:2x3 SPF No.2

OTHERS 2x4 SPF No.2 *Except* 3-14:2x3 SPF No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

JOINTS

1 Brace at Jt(s): 15, 16

REACTIONS (lb/size)

2=240/17-9-5, 9=179/17-9-5, 11=271/17-9-5, 12=301/17-9-5, 13=289/17-9-5, 14=391/17-9-5

Max Horiz 2=-153 (LC 6)

Max Uplift 2=-31 (LC 9), 11=-100 (LC 9), 12=-103 (LC 9), 14=-137 (LC 8)

Max Grav 2=240 (LC 1), 9=183 (LC 22), 11=325 (LC 16), 12=333 (LC 16), 13=364 (LC 15), 14=486 (LC 15)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/17, 2-3=-175/88, 3-4=-158/127, 4-5=-92/137, 5-6=-53/117, 6-7=-97/89, 7-8=-55/28, 8-9=-87/73, 9-10=0/17

BOT CHORD 2-14=-47/108, 13-14=-47/108, 12-13=-47/108, 11-12=-45/115, 9-11=-45/115

WEBS 13-15=-210/0, 5-15=-185/2, 4-15=-68/51, 15-16=-64/48, 12-16=-70/54, 6-16=-50/29, 7-12=-203/122, 8-11=-212/120, 3-14=-301/179

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) exterior 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) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 2, 103 lb uplift at joint 12, 100 lb uplift at joint 11 and 137 lb uplift at joint 14.
- 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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



November 29, 2021

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

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

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

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



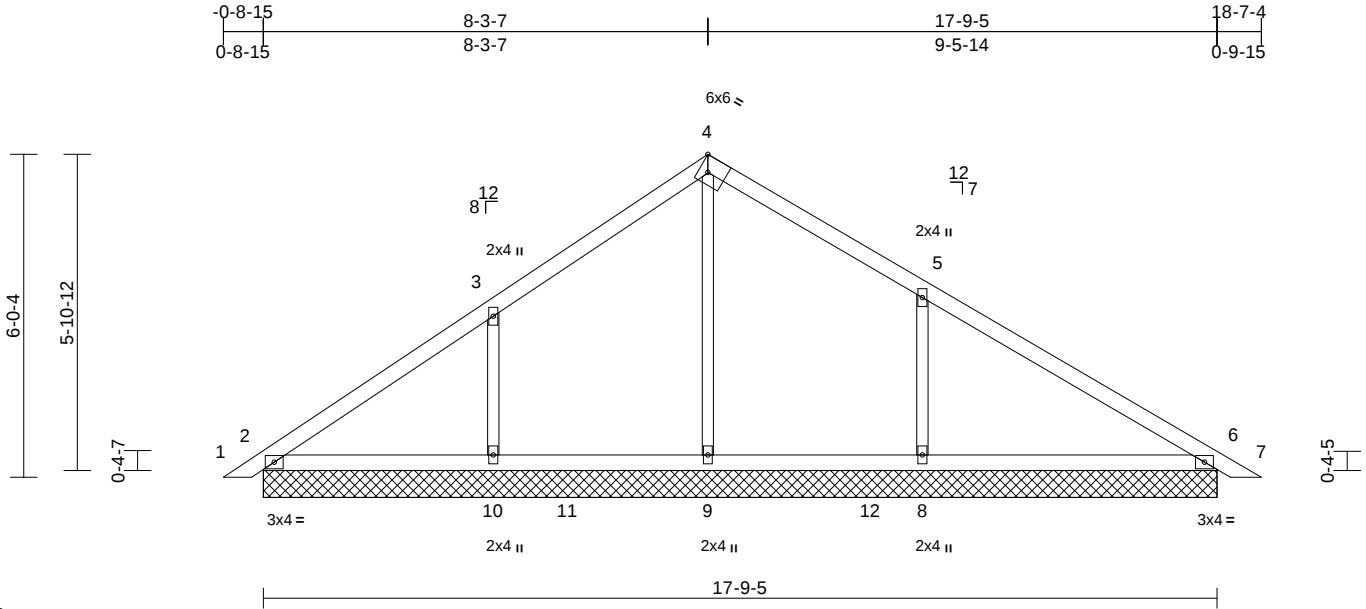
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978035 LEE'S SUMMIT, MISSOURI
H4131	P4	Piggyback	5	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:05
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12/09/2021



Scale = 1:43

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	6	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 55 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

(lb/size)	2=211/17-9-5, 6=261/17-9-5, 8=526/17-9-5, 9=227/17-9-5, 10=447/17-9-5
Max Horiz	2=-153 (LC 6)
Max Uplift	2=-21 (LC 9), 6=-25 (LC 9), 8=-184 (LC 9), 10=-179 (LC 8)
Max Grav	2=223 (LC 16), 6=267 (LC 16), 8=643 (LC 16), 9=338 (LC 18), 10=549 (LC 15)

FORCES

(lb) - Maximum Compression/Maximum Tension

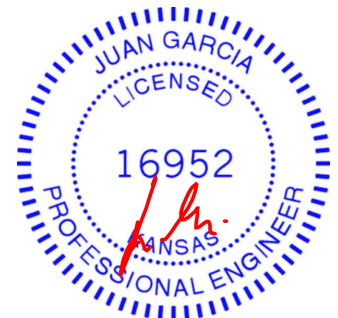
TOP CHORD	1-2=0/17, 2-3=-149/117, 3-4=-146/137, 4-5=-131/121, 5-6=-128/86, 6-7=0/17
BOT CHORD	2-10=-46/105, 9-10=-46/105, 8-9=-46/105, 6-8=-46/105
WEBS	4-9=-173/0, 3-10=-358/224, 5-8=-412/235

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) exterior 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) Gable requires continuous bottom chord bearing.

- 5) Gable studs spaced at 4-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 2, 25 lb uplift at joint 6, 179 lb uplift at joint 10 and 184 lb uplift at joint 8.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



November 29, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:06:10 ID:CE6VMFpH?UjHlw0tSib8KqyZPwR-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcD075423C?f

The drawing illustrates a roof truss system with the following components and dimensions:

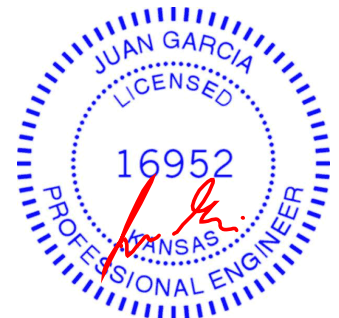
- Roof Slopes:** Indicated by triangles with angles of 12° and 7°.
- Truss Members:**
 - Top Chords:** Labeled 3-7-8 and 6-9-1.
 - Bottom Chords:** Labeled 3-7-8 and 3-1-9.
 - Vertical Post:** Labeled 4x4 = 2.
 - Diagonal Bracing:** Labeled 12 and 7.
 - End Bracing:** Labeled 1 and 3.
- Foundation/Support:** A cross-hatched area at the base, labeled 4x4 = 2.
- Dimensions:**
 - Horizontal Dimensions:** 3-7-8, 6-9-1, 3-1-9, 7-3-0, 0-5-15.
 - Vertical Dimensions:** 2-1-10, 1-9-15, 0-0-4.

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 18 lb	FT = 10%

- 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) exterior 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) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2'-0" oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0" tall by 2'-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 34 lb uplift at joint 1 and 40 lb uplift at joint 3.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

The seal is circular with a dotted outer border. Inside the border, the words "STATE OF MISSOURI" are written in a semi-circle at the top, and "PROFESSIONAL ENGINEER" is written in a semi-circle at the bottom. Two five-pointed stars are positioned on the left and right sides, separating the top and bottom text. In the center of the seal, the name "JUAN GARCIA" is printed in a bold, sans-serif font. Below the name, the word "NUMBER" is printed, followed by the license number "E-2000162101". There are two small horizontal bars, one above the name and one below the number.



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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

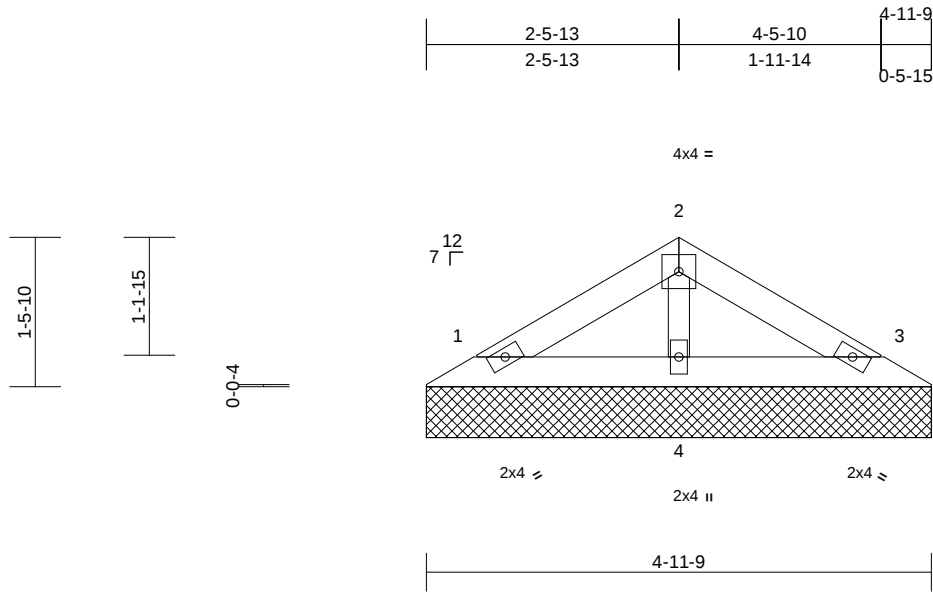
Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	AS NOTED FOR PLAN REVIEW
H4131	V2A	Valley	1	1	Job Reference (optional)	DEVELOPMENT SERVICES
						148978037
						LEE'S SUMMIT, MISSOURI

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:30 Page: 1

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12/09/2021



Scale = 1:22.7

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 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 5-0-7 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(lb/size)	1=96/4-11-9, 3=96/4-11-9, 4=163/4-11-9
	Max Horiz	1=-30 (LC 4)
	Max Uplift	1=-22 (LC 8), 3=-26 (LC 9)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-55/28, 2-3=-52/21
BOT CHORD	1-4=-6/25, 3-4=-6/25
WEBS	2-4=-114/29

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 26 lb uplift at joint 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.

LOAD CASE(S) Standard

November 29, 2021

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

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

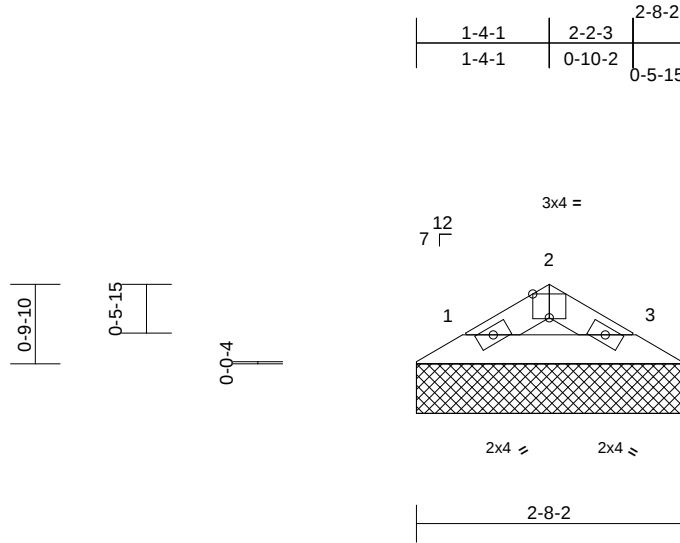
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 2060116023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978038 LEE'S SUMMIT, MISSOURI
H4131	V3A	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:30
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12/09/2021



Scale = 1:23.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 5 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=75/2-8-2, 3=75/2-8-2
Max Horiz 1=13 (LC 5)
Max Uplift 1=-9 (LC 8), 3=-9 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

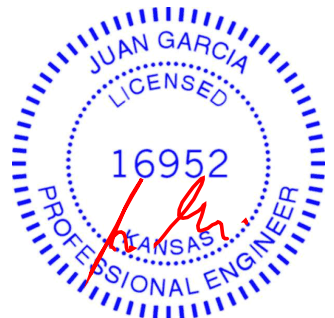
TOP CHORD 1-2=-70/21, 2-3=-70/21
BOT CHORD 1-3=-11/50

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1 and 9 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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

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



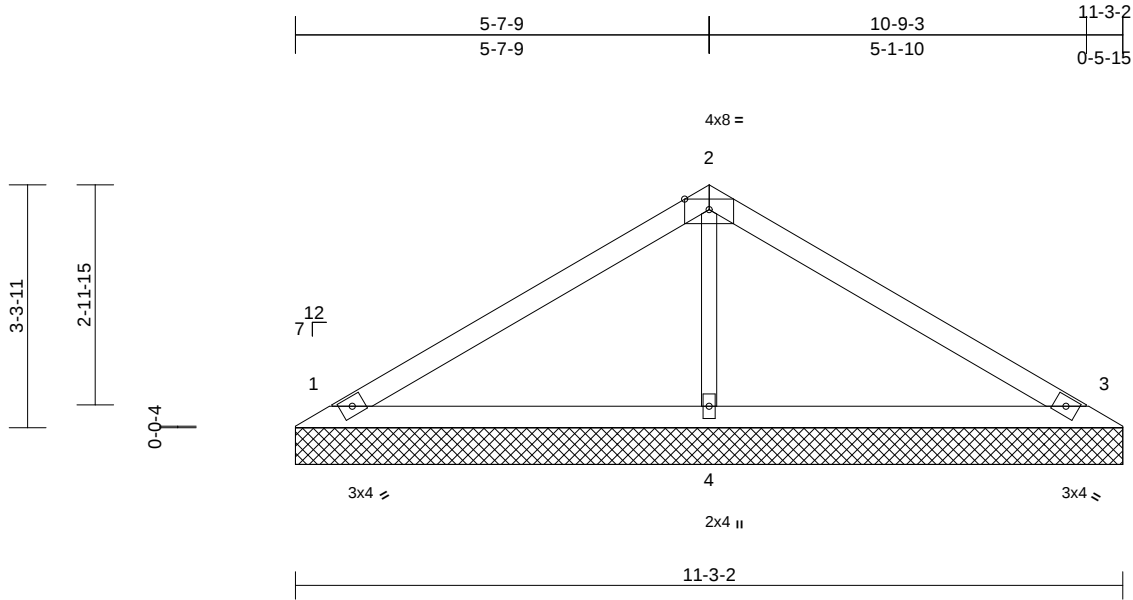
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978039 LEE'S SUMMIT, MISSOURI
H4131	V4A	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

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12/09/2021



Scale = 1:31.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							
										Weight: 29 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	(lb/size)	1=227/11-3-2, 3=227/11-3-2, 4=469/11-3-2
	Max Horiz	1=-78 (LC 4)
	Max Uplift	1=-45 (LC 8), 3=-55 (LC 9), 4=-22 (LC 8)

FORCES	(lb) - Maximum Compression/Maximum Tension
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TOP CHORD	1-2=-156/76, 2-3=-156/56
BOT CHORD	1-4=-14/71, 3-4=-14/71
WEBS	2-4=-314/81

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 1, 55 lb uplift at joint 3 and 22 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978040 LEE'S SUMMIT, MISSOURI
H4131	V5A	Valley	1	1	Job Reference (optional)	

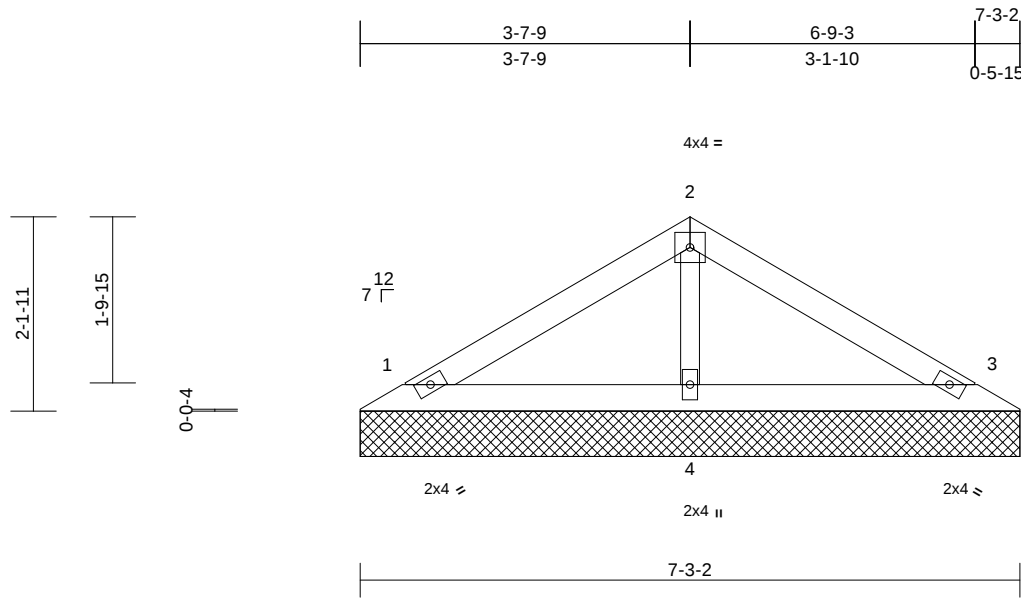
Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:11

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Page: 1

12/09/2021



Scale = 1:25.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	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 (lb/size) 1=152/7-3-2, 3=152/7-3-2, 4=258/7-3-2
 Max Horiz 1=-48 (LC 4)
 Max Uplift 1=-34 (LC 8), 3=-40 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-86/45, 2-3=-83/33
 BOT CHORD 1-4=-9/40, 3-4=-9/40
 WEBS 2-4=-180/46

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 34 lb uplift at joint 1 and 40 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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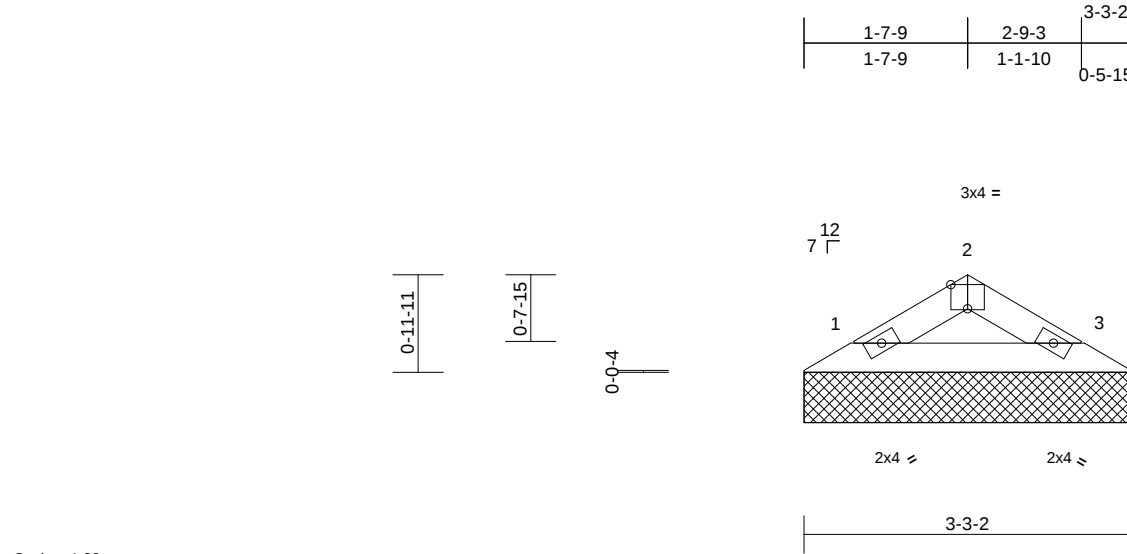
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Lot 131 H4	RELEASE FOR CONSTRUCTION AS NOTED FOR PLAN REVIEW DEVELOPMENT SERVICES 148978041 LEE'S SUMMIT, MISSOURI
H4131	V6A	Valley	1	1	Job Reference (optional)	

Wheeler Lumber, Waverly, KS - 66871,

Run: 8.43 S Oct 11 2021 Print: 8.430 S Oct 11 2021 MiTek Industries, Inc. Mon Nov 29 06:03:11 Page: 1
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12/09/2021



Scale = 1:23

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999	197/144
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 7 lb FT = 10%

LUMBER

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

BRACING

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

REACTIONS (lb/size) 1=101/3-3-2, 3=101/3-3-2
Max Horiz 1=17 (LC 7)
Max Uplift 1=-12 (LC 8), 3=-12 (LC 9)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-94/28, 2-3=-94/28
BOT CHORD 1-3=-15/67

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) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1 and 12 lb uplift at joint 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.

LOAD CASE(S) Standard



November 29, 2021

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



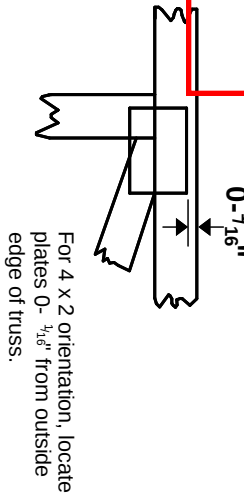
16023 Swingley Ridge Rd
Chesterfield, MO 63017

12/09/2021

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.



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

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

PLATE SIZE

4 X 4

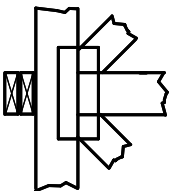
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



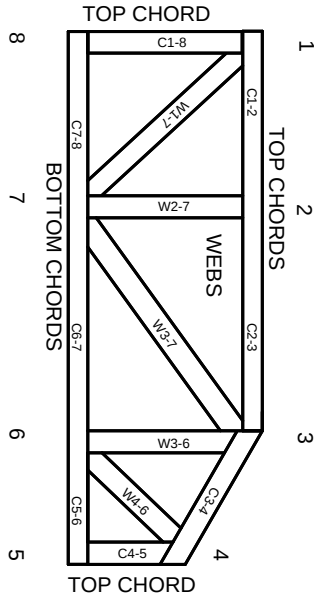
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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