



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
01/31/2022 4:48:03

RE: 3021298
SUMMIT/HAWTHORN RIDGE #139/MO

MiTek USA, Inc.

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

Site Information:

Customer: Project Name: 3021298
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
Roof Load: 45.0 psf

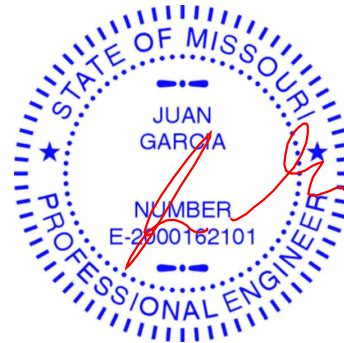
Design Program: MiTek 20/20 8.4
Wind Speed: 115 mph
Floor Load: N/A psf

This package includes 84 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I49230742	A01	12/14/2021	21	I49230762	C01	12/14/2021
2	I49230743	A02	12/14/2021	22	I49230763	C02	12/14/2021
3	I49230744	A03	12/14/2021	23	I49230764	C03	12/14/2021
4	I49230745	A04	12/14/2021	24	I49230765	C04	12/14/2021
5	I49230746	A05	12/14/2021	25	I49230766	C05	12/14/2021
6	I49230747	A06	12/14/2021	26	I49230767	CJ01	12/14/2021
7	I49230748	A07	12/14/2021	27	I49230768	CJ02	12/14/2021
8	I49230749	A08	12/14/2021	28	I49230769	CJ03	12/14/2021
9	I49230750	A09	12/14/2021	29	I49230770	CJ05	12/14/2021
10	I49230751	B01	12/14/2021	30	I49230771	CJ06	12/14/2021
11	I49230752	B02	12/14/2021	31	I49230772	CJ07	12/14/2021
12	I49230753	B03	12/14/2021	32	I49230773	CJ08	12/14/2021
13	I49230754	B04	12/14/2021	33	I49230774	CJ09	12/14/2021
14	I49230755	B05	12/14/2021	34	I49230775	CJ10	12/14/2021
15	I49230756	B06	12/14/2021	35	I49230776	CJ11	12/14/2021
16	I49230757	B07	12/14/2021	36	I49230777	CJ12	12/14/2021
17	I49230758	B08	12/14/2021	37	I49230778	D01	12/14/2021
18	I49230759	B09	12/14/2021	38	I49230779	D02	12/14/2021
19	I49230760	B10	12/14/2021	39	I49230780	E01	12/14/2021
20	I49230761	B11	12/14/2021	40	I49230781	E02	12/14/2021

The truss drawing(s) referenced above have been prepared by
MiTek USA, Inc. under my direct supervision
based on the parameters provided by Builders FirstSource (Valley Center).
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.



December 14, 2021



RE: 3021298 - SUMMIT/HAWTHORN RIDGE #139/MO

MiTek USA, Inc.

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

Site Information:

Project Customer: Project Name: 3021298

Lot/Block:

Subdivision:

Address:

City, County:

State:

No.	Seal#	Truss Name	Date
41	I49230782	F01	12/14/2021
42	I49230783	F02	12/14/2021
43	I49230784	F03	12/14/2021
44	I49230785	F04	12/14/2021
45	I49230786	F05	12/14/2021
46	I49230787	F06	12/14/2021
47	I49230788	F07	12/14/2021
48	I49230789	F08	12/14/2021
49	I49230790	F09	12/14/2021
50	I49230791	F10	12/14/2021
51	I49230792	G01	12/14/2021
52	I49230793	G02	12/14/2021
53	I49230794	G03	12/14/2021
54	I49230795	G04	12/14/2021
55	I49230796	G05	12/14/2021
56	I49230797	G06	12/14/2021
57	I49230798	G07	12/14/2021
58	I49230799	G08	12/14/2021
59	I49230800	G09	12/14/2021
60	I49230801	H01	12/14/2021
61	I49230802	J01	12/14/2021
62	I49230803	J02	12/14/2021
63	I49230804	J03	12/14/2021
64	I49230805	J04	12/14/2021
65	I49230806	J05	12/14/2021
66	I49230807	J06	12/14/2021
67	I49230808	J07	12/14/2021
68	I49230809	J08	12/14/2021
69	I49230810	J09	12/14/2021
70	I49230811	J10	12/14/2021
71	I49230812	J11	12/14/2021
72	I49230813	J12	12/14/2021
73	I49230814	J13	12/14/2021
74	I49230815	J14	12/14/2021
75	I49230816	J15	12/14/2021
76	I49230817	J16	12/14/2021
77	I49230818	J17	12/14/2021
78	I49230819	LG1	12/14/2021
79	I49230820	LG2	12/14/2021
80	I49230821	LG3	12/14/2021
81	I49230822	LG4	12/14/2021
82	I49230823	LG5	12/14/2021
83	I49230824	LG6	12/14/2021
84	I49230825	V01	12/14/2021

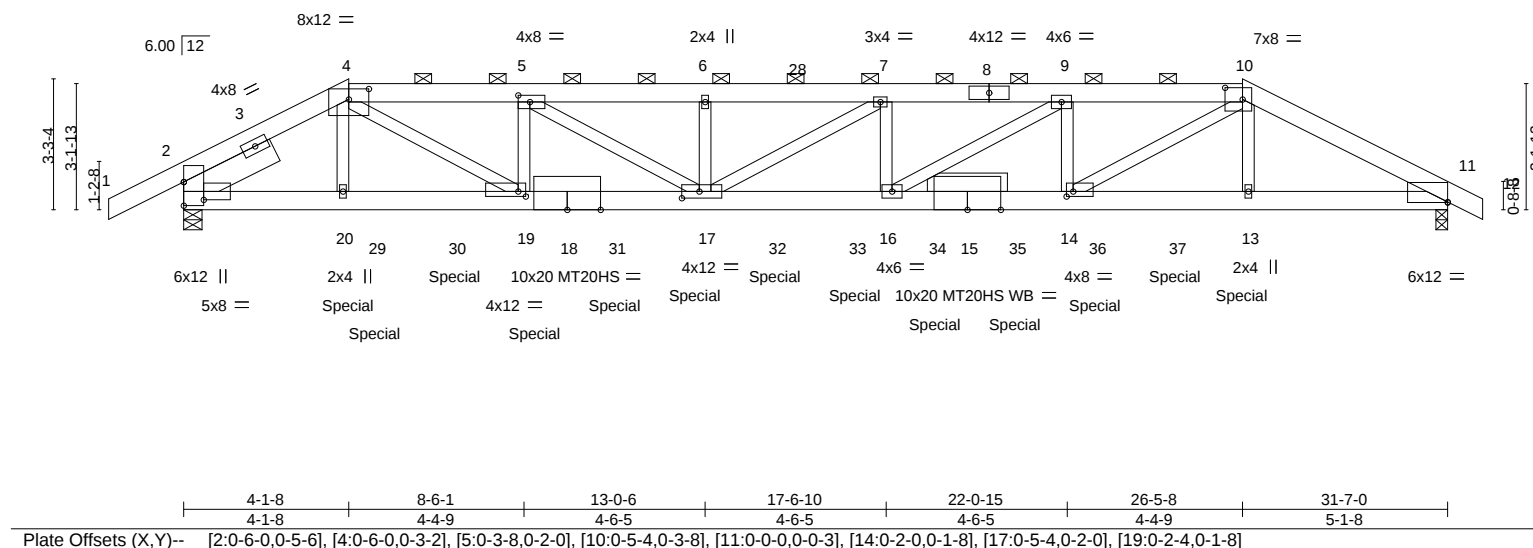
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230742
3021298	A01	Hip Girder	1	1	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

8.430 s Aug 16 2021 MiTek Industries, Inc. Tue Dec 14 10:51:04 2021 Page 1
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-Dxx_CmgRJWNrezlQI545p9pgGvSMCIXXH4LthUy94_5

-1-10-8	4-1-8	8-6-1	13-0-6	17-6-10	22-0-15	26-5-8	31-7-0	32-5-8
1-10-8	4-1-8	4-4-9	4-6-5	4-6-5	4-6-5	4-4-9	5-1-8	0-10-8

Scale = 1:57.6



LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.48 16-17	>791	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.86 16-17	>443	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	NO	WB 0.74	Horz(CT)	0.16 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 182 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF 2100F 1.8E
BOT CHORD 2x6 SPF 2100F 1.8E *Except*
11-15: 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
4-19,5-17,7-17,9-16,10-14: 2x4 SPF 1650F 1.5E
OTHERS 2x6 SPF No.2
SLIDER Left 2x8 SP 2400F 2.0E 2-6-0

BRACING-

TOP CHORD Sheathed or 3-2-10 oc purlins, except
2-0-0 oc purlins (2-8-3 max.): 4-10.
BOT CHORD Rigid ceiling directly applied or 5-7-14 oc bracing.

REACTIONS.

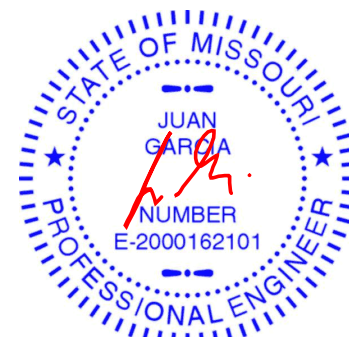
(size) 2=0-5-8, 11=0-3-8
Max Horz 2=54(LC 33)
Max Uplift 2=-949(LC 8), 11=-944(LC 9)
Max Grav 2=3424(LC 1), 11=3416(LC 1)

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

TOP CHORD 2-3=-1059/318, 3-4=-5227/1532, 4-5=-8340/2468, 5-6=-10210/3007, 6-28=-10210/3007,
7-28=-10210/3007, 7-8=-10480/3089, 8-9=-10480/3089, 9-10=-9035/2661,
10-11=-6570/1872
BOT CHORD 2-20=-1289/4474, 20-29=-1287/4465, 29-30=-1287/4465, 19-30=-1287/4465,
18-19=-2426/8339, 18-31=-2426/8339, 17-31=-2426/8339, 17-32=-3030/10480,
32-33=-3030/10480, 16-33=-3030/10480, 16-34=-2590/9034, 15-34=-2590/9034,
15-35=-2590/9034, 14-35=-2590/9034, 14-36=-1608/5762, 36-37=-1608/5762,
13-37=-1608/5762, 11-13=-1617/5797
WEBS 4-19=-1371/4585, 5-19=-1575/506, 5-17=-650/2198, 6-17=-297/131, 7-17=-335/209,
9-16=-520/1716, 9-14=-1265/421, 10-14=-1189/3915, 10-13=-178/656

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=949, 11=944.
- This truss 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. Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO	I49230742
3021298	A01	Hip Girder	1	1	Job Reference (optional)	

- NOTES-**
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 193 lb down and 96 lb up at 4-1-8, 275 lb down and 107 lb up at 4-9-8, 275 lb down and 107 lb up at 6-9-8, 275 lb down and 107 lb up at 8-9-8, 275 lb down and 107 lb up at 10-9-8, 275 lb down and 107 lb up at 12-9-8, 275 lb down and 107 lb up at 14-9-8, 275 lb down and 107 lb up at 16-9-8, 275 lb down and 107 lb up at 18-9-8, 275 lb down and 107 lb up at 20-9-8, 275 lb down and 107 lb up at 22-9-8, and 275 lb down and 107 lb up at 24-9-8, and 591 lb down and 216 lb up at 26-5-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-4=-70, 4-10=-70, 10-12=-70, 21-25=-20
- Concentrated Loads (lb)
- Vert: 20=-193(B) 19=-275(B) 17=-275(B) 13=-591(B) 29=-275(B) 30=-275(B) 31=-275(B) 32=-275(B) 33=-275(B) 34=-275(B) 35=-275(B) 36=-275(B) 37=-275(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230743
3021298	A02	Hip	1	1	Job Reference (optional)	

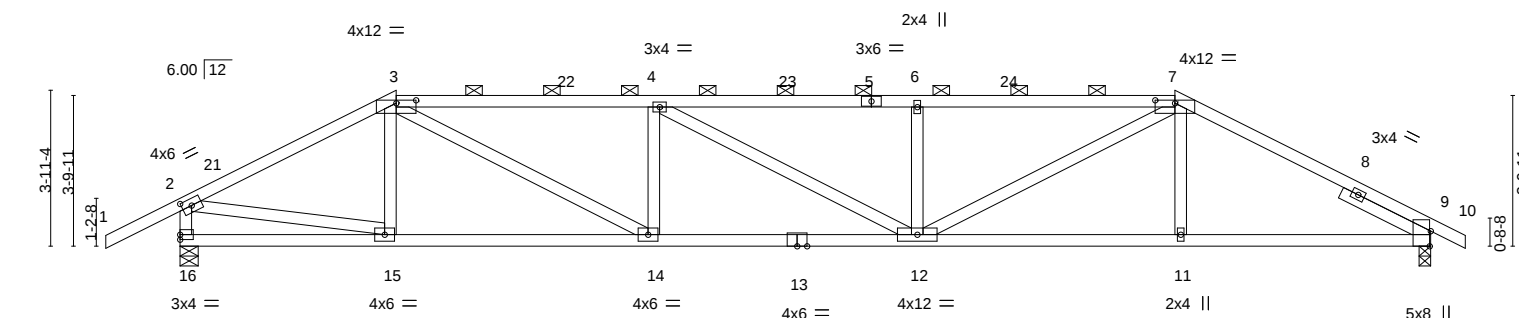
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:37:58 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-FGX9WtOEyYMsGAsTCkn1hJxOdtiWsV7OikesZFy9OO7

-1-10-8	5-5-8	11-11-9	18-7-7	25-1-8	31-7-0	32-5-8
1-10-8	5-5-8	6-6-1	6-7-13	6-6-1	6-5-8	0-10-8

Scale = 1:58.2



	5-5-8	11-11-9	18-7-7	25-1-8	31-7-0	
	5-5-8	6-6-1	6-7-13	6-6-1	6-5-8	

Plate Offsets (X,Y)-- [2:0-2-15,0-2-0], [3:0-6-0,0-0-15], [7:0-6-0,0-0-15], [9:0-4-9,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	-0.22 12-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.42 12-14	>892	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.10 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 126 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-2-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

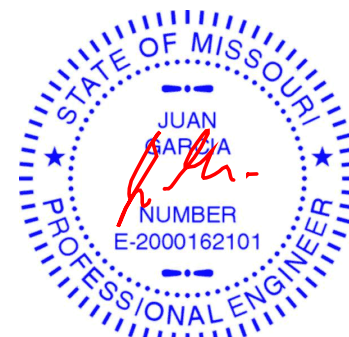
(size) 16=0-5-8, 9=0-3-8
Max Horz 16=-71(LC 10)
Max Uplift 16=-291(LC 12), 9=-273(LC 13)
Max Grav 16=1560(LC 1), 9=1472(LC 1)

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

TOP CHORD 2-3=-2047/377, 3-4=-3031/624, 4-6=-3140/644, 6-7=-3142/645, 7-9=-2364/429, 2-16=-1508/343
BOT CHORD 14-15=-315/1771, 12-14=-575/3029, 11-12=-319/2053, 9-11=-317/2057
WEBS 3-14=-345/1486, 4-14=-582/223, 6-12=-525/210, 7-12=-329/1338, 2-15=-303/1680

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 5-5-8, Exterior(2R) 5-5-8 to 9-8-7, Interior(1) 9-8-7 to 25-1-8, Exterior(2R) 25-1-8 to 29-4-7, Interior(1) 29-4-7 to 32-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 16=291, 9=273.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 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

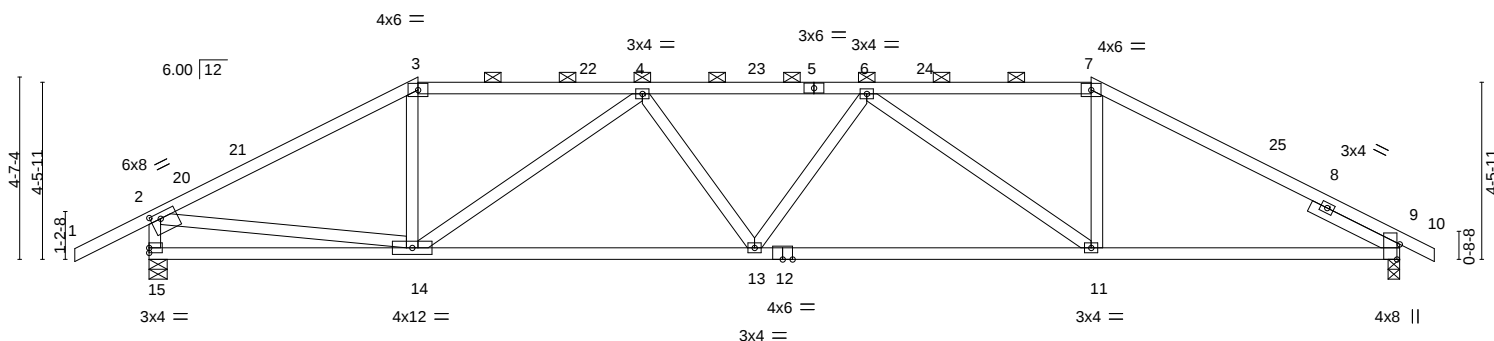


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Chesterfield, MO 63017

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-1-10-8	6-9-8	12-5-8	18-1-8	23-9-8	31-7-8	32-5-8
1-10-8	6-9-8	5-8-0	5-8-0	5-8-0	7-9-8	0-10-8

Scale = 1:58.2



6-9-8 15-3-8 23-9-8 31-7-0

6-9-8 8-6-0 8-6-0 7-9-8

Plate Offsets (X,Y)-- [2:0-3:0,0-1-12], [9:0-4-9,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.18	11-13	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.40	11-13	>945	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.11	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 124 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-0 max.): 3-7.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Right 2x4 SPF No 2 2-6-0		

REACTIONS. (size) 15=0-5-8, 9=0-3-8
 Max Horz 15=-79(LC 10)
 Max Uplift 15=-289(LC 12), 9=-272(LC 13)
 Max Grav 15=1560(LC 1), 9=1472(LC 1)

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

TOP CHORD 2-3=-2095/347, 3-4=-1779/355, 4-6=-2642/480, 6-7=-1981/418, 7-9=-2318/407,
2-15=-1496/348

BOT CHORD 14-15=-142/262, 13-14=-448/2543, 11-13=-439/2618, 9-11=-262/2000

WEBS 3-14=-54/544, 4-14=-1024/269, 4-13=-43/259, 6-11=-913/261, 7-11=-74/657,
2-14=-260/1549

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-9-8, Exterior(2R) 6-9-8 to 11-0-7, Interior(1) 11-0-7 to 23-9-8, Exterior(2R) 23-9-8 to 28-0-7, Interior(1) 28-0-7 to 32-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 15=289, 9=272.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14.2021

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

WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH/473 (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	SUMMIT/HAWTHORN RIDGE #139/MO	149230745
3021298	A04	Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

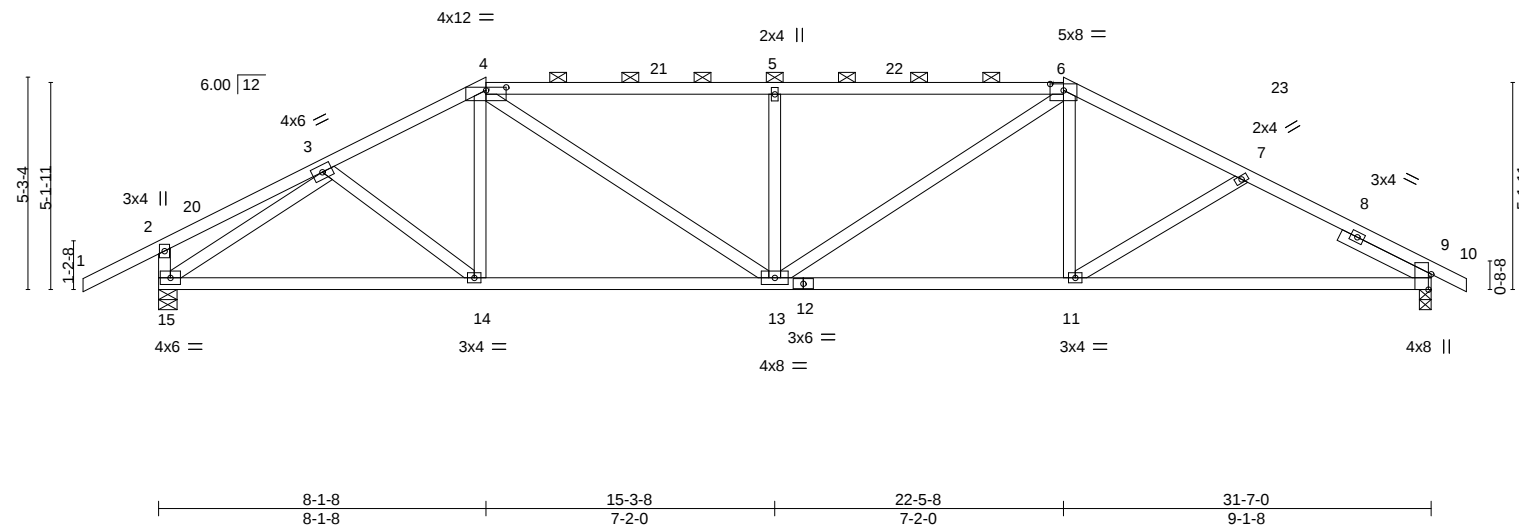
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:01 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-fqDH8uQ7FTkR7db2tsKkJxZxg5l03mprPitWAay9004

Job Reference (optional)

-1-10-8	4-2-8	8-1-8	15-3-8	22-5-8	26-10-8	31-7-0	32-5-8
1-10-8	4-2-8	3-11-0	7-2-0	7-2-0	4-5-0	4-8-8	0-10-8

Scale = 1:57.2



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	A05	Roof Special	1	1	149230746

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

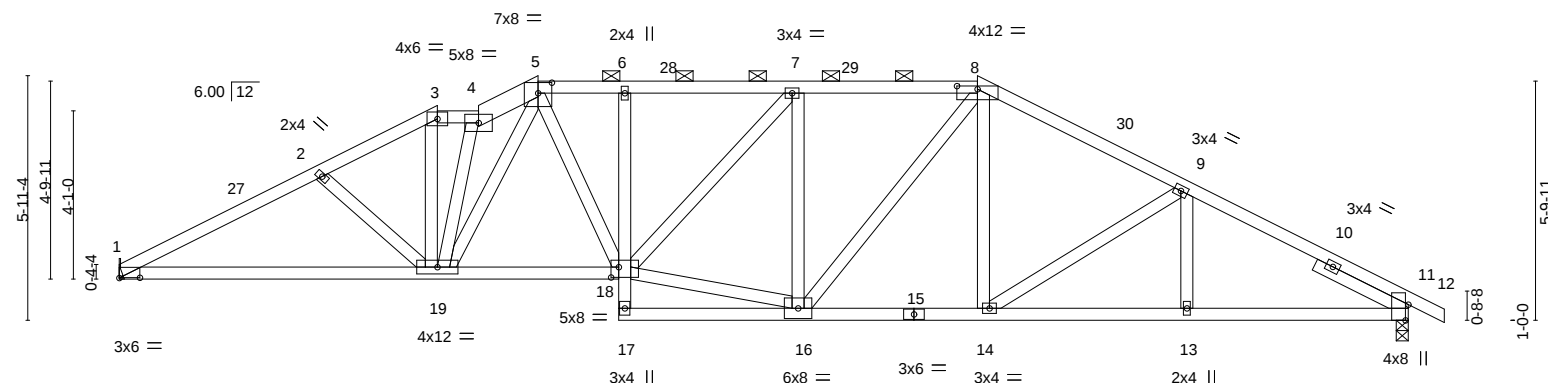
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:02 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-71nfMERlOnslnAERaszr95BhV42ol8_dMc41y9003

Job Reference (optional)

4-11-2	7-8-11	8-8-11	10-2-0	12-1-8	16-5-12	20-10-0	25-11-0	31-3-8	32-2-0
4-11-2	2-9-9	1-0-0	1-5-5	1-11-8	4-4-4	4-4-4	5-1-0	5-4-8	0-10-8

Scale = 1:55.9



	7-8-11	12-1-8	16-5-12	20-10-0	25-11-0	31-3-8
	7-8-11	4-4-13	4-4-4	4-4-4	5-1-0	5-4-8

Plate Offsets (X,Y)-- [1:0-6-0,0-0-1], [5:0-4-0,0-3-1], [8:0-6-0,0-0-15], [11:0-4-9,Edge], [18:0-2-4,0-3-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.15 18-19	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.27 18-19	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.11 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 149 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
4-5: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-6-12 max.): 3-4, 5-8.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 1=Mechanical, 11=0-3-8
Max Horz 1=-121(LC 13)
Max Uplift 1=-187(LC 12), 11=-212(LC 13)
Max Grav 1=1407(LC 1), 11=1470(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2662/498, 2-3=-2452/468, 3-4=-2157/442, 4-5=-2647/560, 5-6=-2327/486,
6-7=-2319/486, 7-8=-2010/443, 8-9=-2069/418, 9-11=-2336/420
BOT CHORD 1-19=-363/2341, 18-19=-263/2147, 14-16=-217/1789, 13-14=-303/2027, 11-13=-303/2027
WEBS 3-19=-124/745, 4-19=-983/208, 8-14=-52/297, 9-14=-294/172, 7-16=-694/186,
8-16=-124/483, 16-18=-243/1939, 7-18=-73/474, 5-19=-159/573, 5-18=-119/532

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-1-9, Interior(1) 3-1-9 to 7-8-11, Exterior(2E) 7-8-11 to 8-8-11, Interior(1) 8-8-11 to 10-2-0, Exterior(2R) 10-2-0 to 13-3-9, Interior(1) 13-3-9 to 20-10-0, Exterior(2R) 20-10-0 to 23-11-9, Interior(1) 23-11-9 to 32-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=187, 11=212.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	A06	Roof Special	1	1	149230747

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

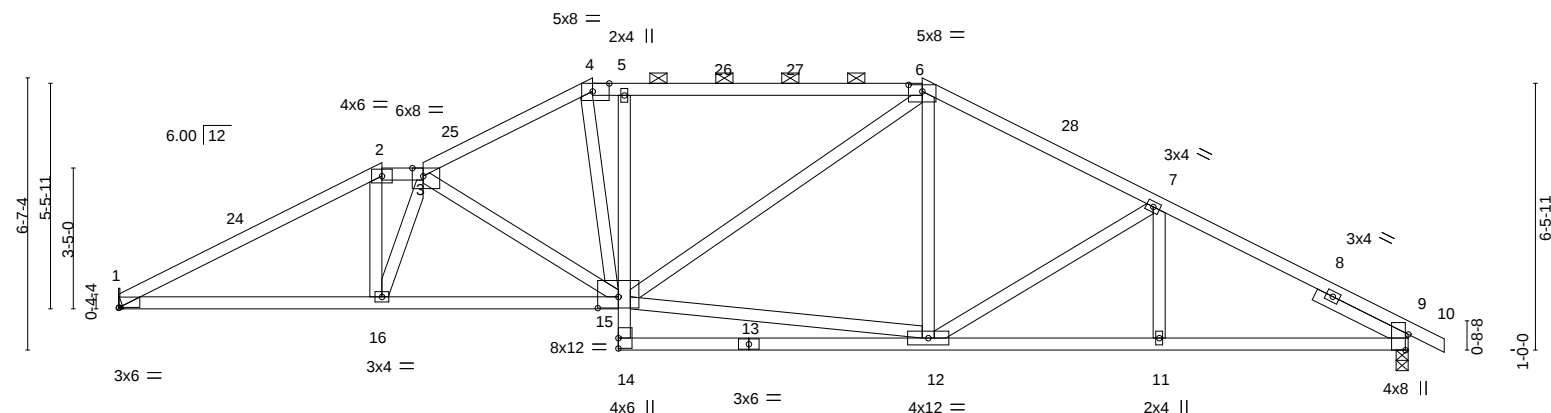
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:03 2021 Page 1

ID:q0ZuNd1SQn_5kyS6a2asYzcai1-bDL2ZaRnN5_9MxIR?HNCOMelVuQXXm67s0MdETy9OO2

Job Reference (optional)

6-4-11	7-4-11	11-6-0	12-1-8	19-6-0	25-3-0	31-3-8	32-2-0
6-4-11	1-0-0	4-1-5	0-7-8	7-4-8	5-9-0	6-0-8	0-10-8

Scale = 1:55.9



	6-4-11	12-1-8	19-6-0	25-3-0	31-3-8
	6-4-11	5-8-13	7-4-8	5-9-0	6-0-8

Plate Offsets (X,Y)-- [1:0-0-3,Edge], [3:0-3-3,Edge], [4:0-4-13,Edge], [6:0-4-0,0-1-15], [9:0-4-9,Edge], [15:0-6-0,0-3-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.15	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.30	12-14	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.11	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 140 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (3-0-1 max.): 2-3, 4-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 1=Mechanical, 9=0-3-8
Max Horz 1=-133(LC 13)
Max Uplift 1=-201(LC 12), 9=-225(LC 13)
Max Grav 1=1407(LC 1), 9=1470(LC 1)

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

TOP CHORD 1-2=-2682/511, 2-3=-2300/505, 3-4=-2179/465, 4-5=-2080/484, 5-6=-2071/487,
6-7=-1991/424, 7-9=-2330/429
BOT CHORD 1-16=-372/2334, 15-16=-404/2507, 5-15=-625/261, 11-12=-299/2020, 9-11=-299/2020
WEBS 2-16=-70/737, 3-16=-608/114, 3-15=-707/205, 4-15=-221/1037, 12-15=-202/1591,
6-15=-114/565, 6-12=-41/271, 7-12=-379/203

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-1-9, Interior(1) 3-1-9 to 6-4-11, Exterior(2E) 6-4-11 to 7-4-11, Interior(1) 7-4-11 to 11-6-0, Exterior(2R) 11-6-0 to 14-7-9, Interior(1) 14-7-9 to 19-6-0, Exterior(2R) 19-6-0 to 22-7-9, Interior(1) 22-7-9 to 32-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=201, 9=225.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230748
3021298	A07	Roof Special	1	1	Job Reference (optional)	

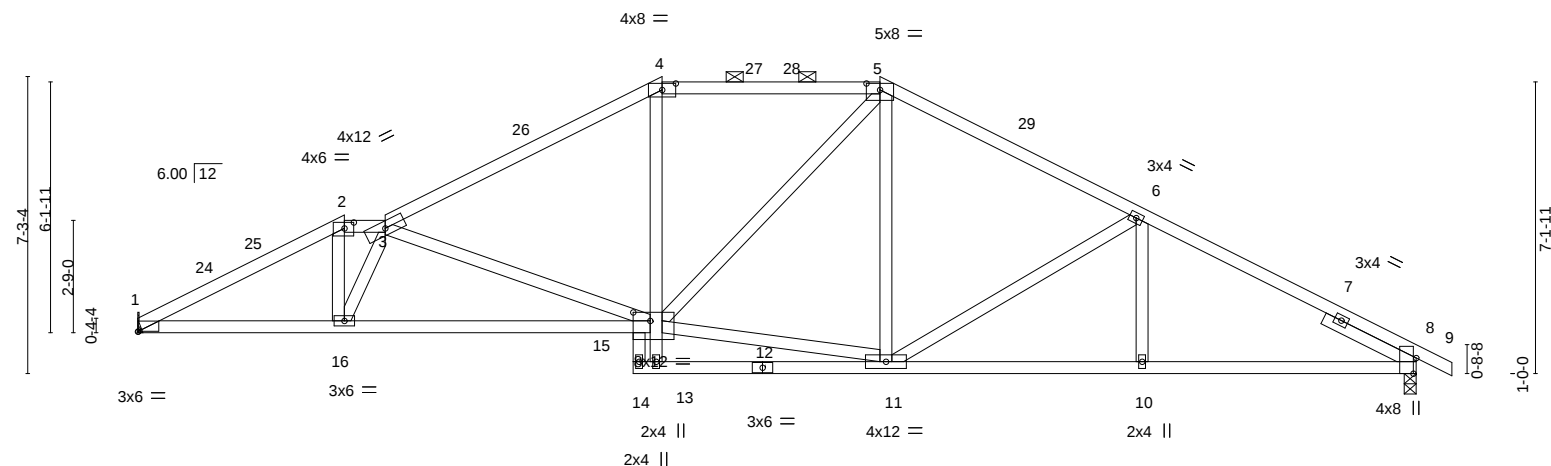
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:04 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-3PuQmwS?YO60_5JdZ?uRwaBT_1l2G5oH5g6Bnvy9OO1

5-0-11	6-0-11	12-1-8	12-10-0	18-2-0	24-7-0	31-3-8	32-2-0
5-0-11	1-0-0	6-0-13	0-8-8	5-4-0	6-5-0	6-8-8	0-10-8

Scale = 1:56.4



	5-0-11	6-0-11	12-1-8	18-2-0	24-7-0	31-3-8	
	5-0-11	1-0-0	6-0-13	6-0-8	6-5-0	6-8-8	

Plate Offsets (X,Y)-- [1:0-0-3,Edge], [2:0-2-12,0-1-12], [4:0-4-0,0-1-15], [5:0-4-0,0-1-15], [8:0-4-9,Edge], [15:0-5-0,0-2-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	-0.18 15-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.41 15-16	>919	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.11 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 136 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (3-5-15 max.): 2-3, 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Right 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 1=Mechanical, 8=0-3-8
Max Horz 1=-145(LC 13)
Max Uplift 1=-212(LC 12), 8=-237(LC 13)
Max Grav 1=1411(LC 1), 8=1472(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2793/498, 2-3=-2387/478, 3-4=-2189/449, 4-5=-1835/454, 5-6=-1885/413, 6-8=-2334/425
BOT CHORD 1-16=-373/2450, 15-16=-462/2805, 10-11=-292/2022, 8-10=-292/2022
WEBS 13-15=0/389, 4-15=-45/500, 2-16=-160/1076, 3-16=-1003/238, 3-15=-1007/299, 5-11=-62/254, 6-11=-514/232, 14-15=-262/0, 11-15=-187/1504, 5-15=-113/466

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-1-9, Interior(1) 3-1-9 to 5-0-11, Exterior(2E) 5-0-11 to 6-0-11, Interior(1) 6-0-11 to 12-10-0, Exterior(2R) 12-10-0 to 15-11-9, Interior(1) 15-11-9 to 18-2-0, Exterior(2R) 18-2-0 to 21-3-9, Interior(1) 21-3-9 to 32-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=212, 8=237.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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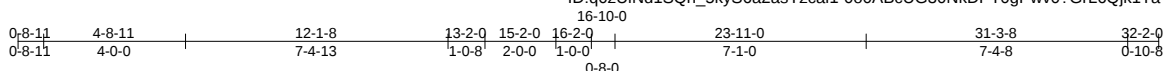
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230749
3021298	A08	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:06 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-0o0ABcUG30NkDPT0gPww0?GrL6Qjk1TaY_bHroy9OO?



Scale = 1:65.0

	4-8-11	12-1-8	13-2-0	16-10-0	23-11-0	31-3-8
	4-8-11	7-4-13	1-0-8	3-8-0	7-1-0	7-4-8
Plate Offsets (X,Y)--	[1:0-2-0,Edge], [4:0-0-5,0-2-4], [5:0-3-0,Edge], [6:0-6-0,0-0-15], [7:0-3-0,Edge], [11:0-4-1,0-0-1], [19:0-0-0,0-1-8], [20:0-3-8,0-2-8]					

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.19 19-20	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.42 19-20	>895	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.77	Horz(CT)	0.10 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 150 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-1-7 max.): 1-2, 3-6, 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-18

REACTIONS.

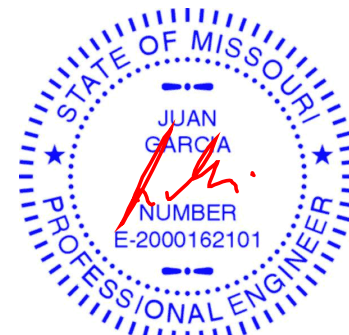
(size) 21=Mechanical, 11=0-3-8
Max Horz 21=-161(LC 13)
Max Uplift 21=-243(LC 12), 11=-248(LC 13)
Max Grav 21=1401(LC 1), 11=1464(LC 1)

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

TOP CHORD 1-2=-3015/491, 2-3=-2141/375, 3-4=-1820/400, 4-6=-1754/403, 6-9=-1837/387, 9-11=-2289/394, 1-21=-1345/248
BOT CHORD 19-20=-532/3103, 18-19=-477/3210, 13-14=-251/1974, 11-13=-251/1974
WEBS 1-20=-522/3154, 2-20=-1086/263, 2-18=-1306/337, 16-18=0/338, 3-18=-44/480, 9-14=-538/222, 14-18=-96/1650, 6-18=-119/543

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-3-5, Interior(1) 3-3-5 to 13-2-0, Exterior(2E) 13-2-0 to 15-2-0, Interior(1) 15-2-0 to 16-2-0, Exterior(2E) 16-2-0 to 16-10-0, Exterior(2R) 16-10-0 to 19-11-9, Interior(1) 19-11-9 to 32-2-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 21=243, 11=248.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

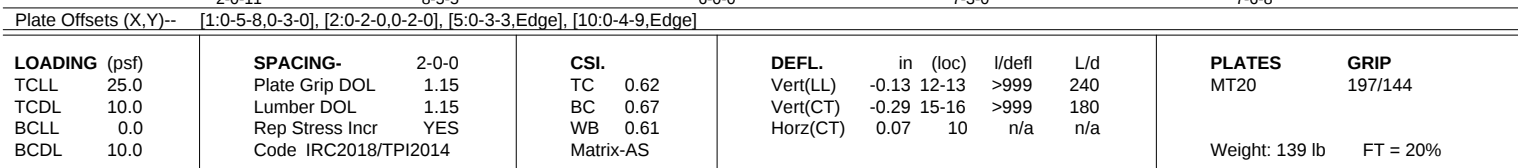
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:08 2021 Page 1
 ID:q0zUiNd1SQn_5kyS6a2asYzca1-yB8xcHVWbddRTidOoqzN5QLJv8QC_Vt0l4Ovg9ONz
 2-0-11 6-3-5 10-6-0 12-6-0 16-6-0 23-9-0 31-3-8 32-2-0
 2-0-11 4-2-11 4-2-11 2-0-0 4-0-0 7-3-0 7-6-8 0-10-8



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

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

TOP CHORD 1-2=-191/310, 2-3=-2073/373, 3-4=-1999/400, 4-5=-1720/391, 5-6=-1645/385,
6-8=-1722/387, 8-10=-2309/409

BOT CHORD 16-17=-106/377, 15-16=-364/1905, 13-15=-260/1833, 12-13=-253/1996, 10-12=-253/1996

WEBS 1-16=-303/1989, 2-16=-1096/240, 3-15=-263/151, 4-15=-91/606, 5-15=-323/100,
5-13=-707/230, 6-13=-193/1027, 8-13=-690/270, 8-12=0/282, 1-23=-1617/276

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-4 to 2-0-11, Interior(1) 2-0-11 to 10-6-0, Exterior(2E) 10-6-0 to 12-6-0, Interior(1) 12-6-0 to 16-6-0, Exterior(2R) 16-6-0 to 19-7-9, Interior(1) 19-7-9 to 32-2-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=249, 23=235.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	B02	Roof Special	1	1	149230752
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:09 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-QNiJqdW8Mxl4sCbLYUcdduK6JTMxOJOEpyR7y9ONy

0-10-8 5-1-9 9-5-8 11-5-8 16-9-8 24-0-8 31-7-0 32-5-8
0-10-8 5-1-9 4-3-15 2-0-0 5-4-0 7-3-0 7-6-8 0-10-8

Scale = 1:59.2

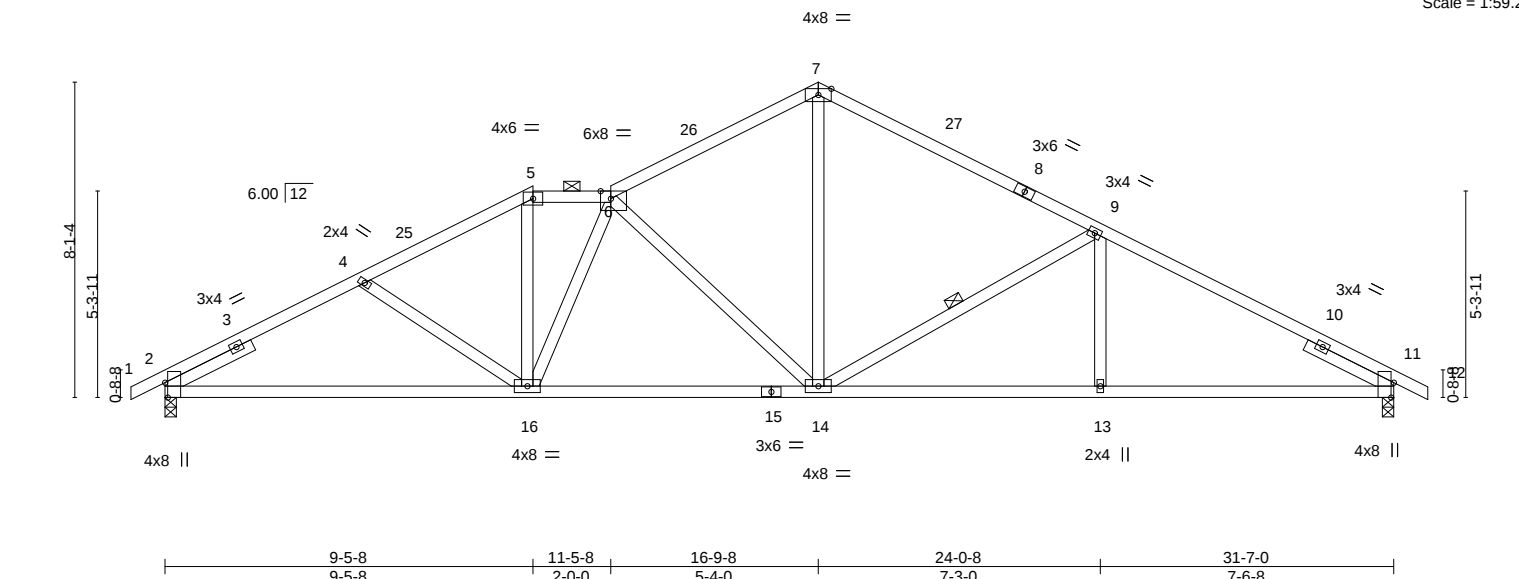


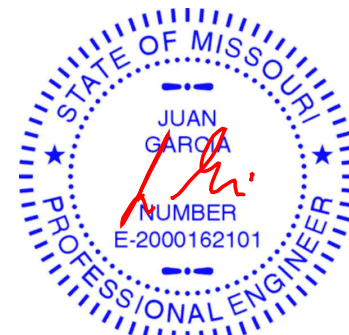
Plate Offsets (X, Y)--		[2:0-4-9,Edge], [6:0-3-3,Edge], [11:0-4-9,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.14 14-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.28 13-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.77	Horz(CT)	0.10 11	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 132 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (4-1-10 max.): 5-6.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0	WEBS	1 Row at midpt 9-14

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=138(LC 12)
Max Uplift 2=264(LC 12), 11=247(LC 13)
Max Grav 2=1482(LC 1), 11=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2344/437, 4-5=-2151/404, 5-6=-1875/399, 6-7=-1723/377, 7-9=-1759/386, 9-11=-2337/408
BOT CHORD 2-16=-438/2035, 14-16=-332/2049, 13-14=-252/2020, 11-13=-252/2020
WEBS 5-16=-88/654, 6-16=-446/120, 6-14=-799/264, 7-14=-173/1025, 9-14=-685/272, 9-13=0/273

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-5-8, Exterior(2E) 9-5-8 to 11-5-8, Interior(1) 11-5-8 to 16-9-8, Exterior(2R) 16-9-8 to 19-9-8, Interior(1) 19-9-8 to 32-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=264, 11=247.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230753
3021298	B03	Roof Special	1	1		

Builders FirstSource (Valley Center),

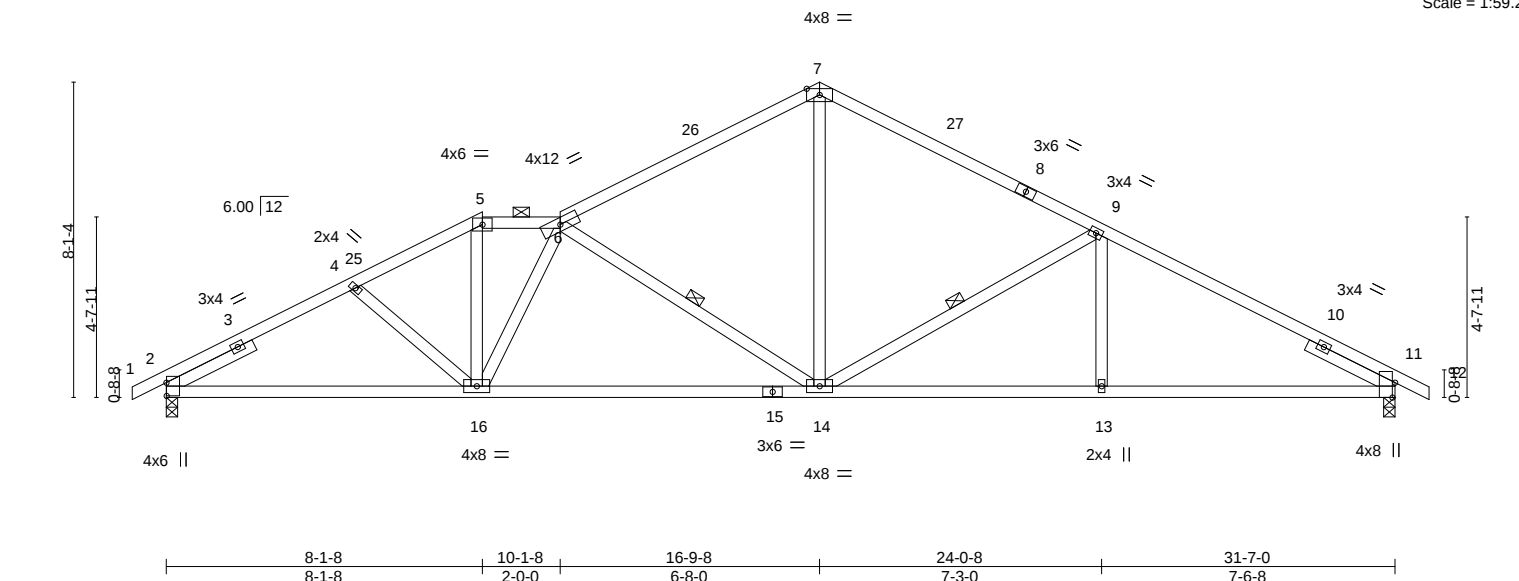
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:11 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-Mmp3FJY0uY?0KAMzTzW4j2zg77AaPPKJiG12V?y9ONw

-0-10-8	4-10-5	8-1-8	10-1-8	16-9-8	24-0-8	31-7-0	32-5-8
0-10-8	4-10-5	3-3-3	2-0-0	6-8-0	7-3-0	7-6-8	0-10-8

Scale = 1:59.2



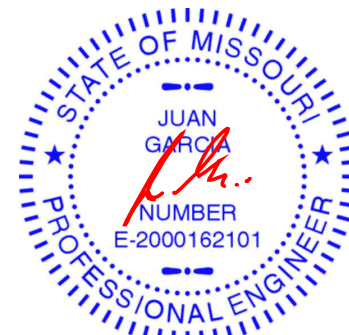
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58	Vert(LL)	-0.15 14-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.37 14-16	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.10 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 130 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (3-11-10 max.): 5-6.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0	WEBS 1 Row at midpt 6-14, 9-14

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=138(LC 12)
Max Uplift 2=264(LC 12), 11=247(LC 13)
Max Grav 2=1483(LC 1), 11=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2347/429, 4-5=-2225/409, 5-6=-1955/393, 6-7=-1757/367, 7-9=-1766/381, 9-11=-2334/404
BOT CHORD 2-16=-432/2030, 14-16=-394/2235, 13-14=-251/2017, 11-13=-251/2017
WEBS 5-16=-134/765, 6-16=-638/167, 6-14=-907/303, 7-14=-148/989, 9-14=-678/273, 9-13=0/260

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-1-8, Exterior(2E) 8-1-8 to 10-1-8, Interior(1) 10-1-8 to 16-9-8, Exterior(2R) 16-9-8 to 19-9-8, Interior(1) 19-9-8 to 32-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=264, 11=247.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230754
3021298	B04	Roof Special	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:12 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-qyNRSfY0fs7txKx91g1JFGWmvV8qXSww2c2Ry9ONv

0-10-8 6-9-8 8-9-8 16-9-8 24-0-8 31-7-0 32-5-8
0-10-8 6-9-8 2-0-0 8-0-0 7-3-0 7-6-8 0-10-8

Scale = 1:59.2

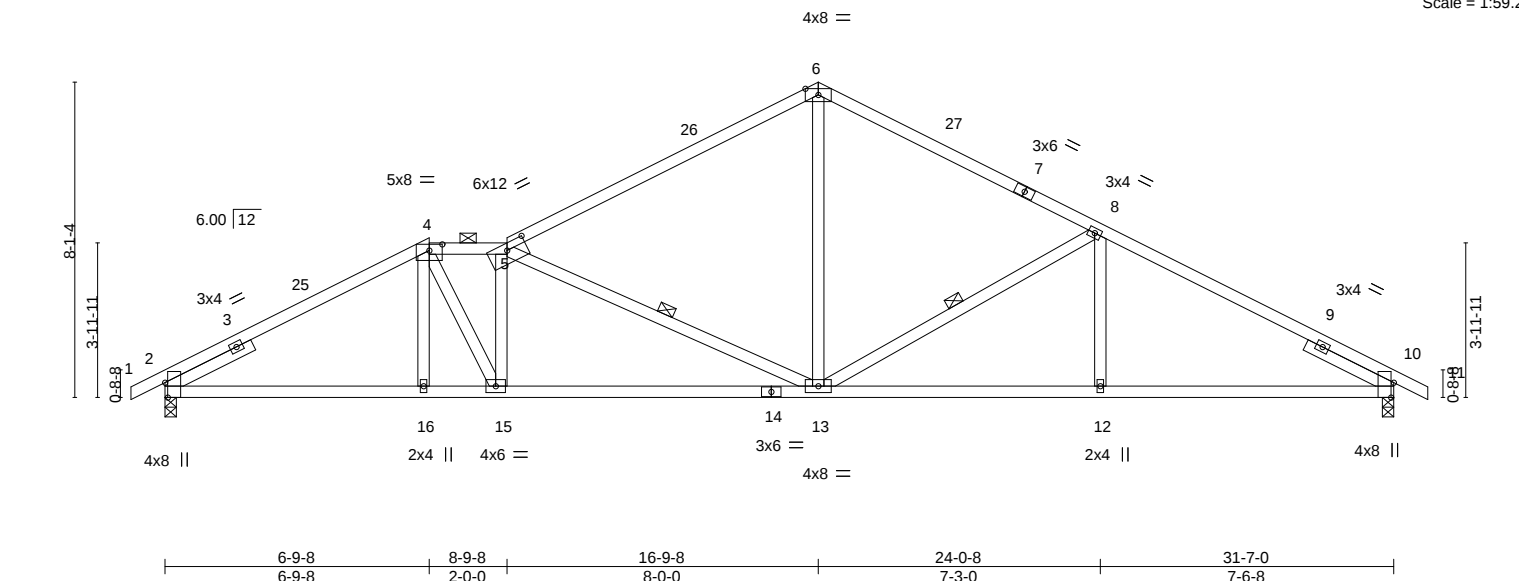


Plate Offsets (X,Y)--		[2:0-4-9,Edge], [4:0-4-0,0-1-15], [5:0-6-0,0-2-1], [10:0-4-9,Edge]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.90	Vert(LL)	-0.14 13-15	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.34 13-15	>999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.42	Horz(CT)	0.11 10	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				Weight: 129 lb		FT = 20%	

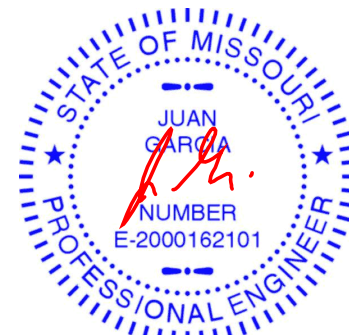
LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (3-3-3 max.): 4-5.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0	WEBS	1 Row at midpt 5-13, 8-13

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=138(LC 12)
Max Uplift 2=-264(LC 12), 10=-247(LC 13)
Max Grav 2=1482(LC 1), 10=1483(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2342/416, 4-5=-2453/469, 5-6=-1785/362, 6-8=-1767/378, 8-10=-2333/399
BOT CHORD 2-16=-395/2029, 15-16=-395/2028, 13-15=-450/2481, 12-13=-249/2015, 10-12=-249/2015
WEBS 4-15=-138/954, 5-15=-722/183, 5-13=-1102/336, 6-13=-124/944, 8-13=-679/271, 8-12=0/264

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-9-8, Exterior(2E) 6-9-8 to 8-9-8, Interior(1) 8-9-8 to 16-9-8, Exterior(2R) 16-9-8 to 19-9-8, Interior(1) 19-9-8 to 32-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=264, 10=247.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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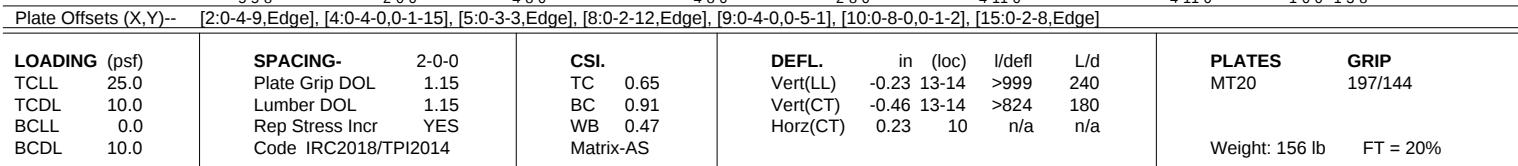
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:13 2021 Page 1
 ID:q0zUiNd1SQn_5kyS6a2asYzca1-J8xpf?ZfQ9FkZTWmaOYYOT3?XwoltGzc9an9auy9ONu
 0-10-8 5-5-8 7-5-8 12-1-8 16-9-8 19-5-8 24-4-8 29-3-8 30-3-8 31-7-0 32-5-8
 0-10-8 5-5-8 2-0-0 4-8-0 4-8-0 2-8-0 4-11-0 4-11-0 1-0-0 1-3-8 0-10-8

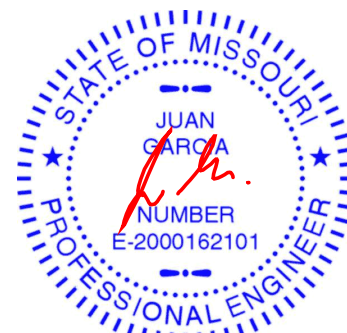


REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=-145(LC 13)
 Max Uplift 2=-264(LC 12), 10=-244(LC 13)
 Max Grav 2=1483(LC 1), 10=1489(LC 1)

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

TOP CHORD	2-4=-2384/407, 4-5=-2031/396, 5-6=-2301/418, 6-7=-1909/380, 7-8=-2011/379, 8-9=-3066/488, 9-10=-597/144
BOT CHORD	2-20=-407/2075, 18-20=-493/2627, 14-15=-298/2779, 13-14=-357/2844, 9-13=-359/2834
WEBS	4-20=-101/922, 7-15=-184/1252, 8-15=-1251/373, 8-13=0/291, 15-18=-248/1911, 6-15=-531/217, 5-18=-773/230, 5-20=-1040/187

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-5-8, Exterior(2E) 5-5-8 to 7-5-8, Interior(1) 7-5-8 to 16-9-8, Exterior(2R) 16-9-8 to 19-9-8, Interior(1) 19-9-8 to 32-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=264, 10=244.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	B06	ROOF SPECIAL	1	1	149230756
Job Reference (optional)					

Builders FirstSource (Valley Center),			Valley Center, KS - 67147,			8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:15 2021 Page 1					
ID:q0zUiNd1SQn_5kyS6a2asYzca11-FX3a4hbvynVSonfkiob0tu8MTkSpl4auduGGemy9ONs											
-0-10-8	4-1-8	6-1-8	11-3-0	13-9-8	15-5-8	18-1-8	19-5-8	24-4-8	29-3-8	31-7-0	32-5-8
0-10-8	4-1-8	2-0-0	5-1-8	2-6-8	1-8-0	2-8-0	1-4-0	4-11-0	4-11-0	2-3-8	0-10-8
6x8 =											
Scale = 1:63.0											

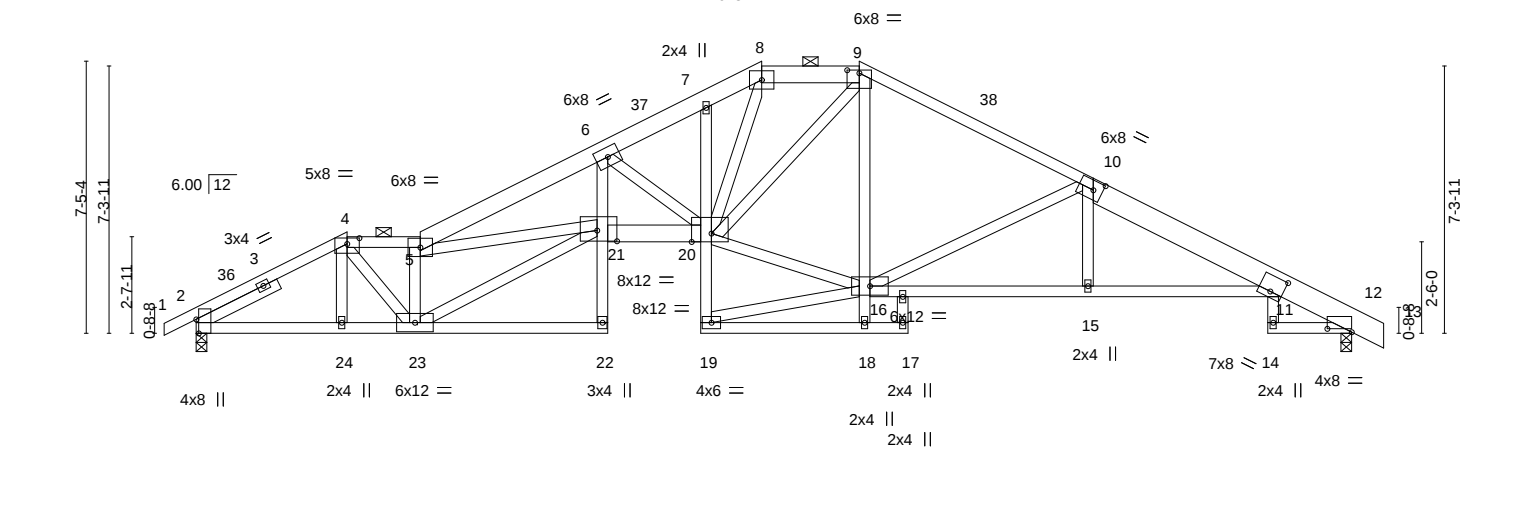
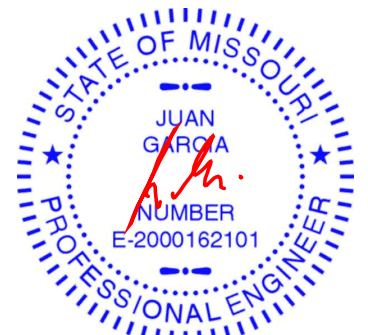


Plate Offsets (X,Y)--		[2:0-4-9,Edge], [4:0-4-0,0-1-15], [9:0-4-0-0,0-1-0], [10:0-3-0-0,0-3-0], [11:0-4-0-0,0-5-1], [12:0-8-0,0-1-2], [20:0-6-8,Edge], [21:0-6-8,0-3-8]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.34	21	>999	240	MT20	197/144	
TCDL 10.0	Lumber DOL	1.15	BC 1.00	Vert(CT)	-0.63	21	>604	180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.39	12	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 188 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 5-8,8-9: 2x6 SPF No.2, 10-13: 2x8 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 2-7-13 oc purlins, except
BOT CHORD	2x4 SPF No.2 *Except* 20-21: 2x6 SPF No.2	BOT CHORD	2-0-0 oc purlins (3-3-1 max.): 4-5, 8-9. Rigid ceiling directly applied or 1-4-12 oc bracing.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 2-6-0		

REACTIONS.		(size) 2=0-3-8, 12=0-3-8
		Max Horz 2=-132(LC 13)
		Max Uplift 2=-253(LC 12), 12=-229(LC 13)
		Max Grav 2=1491(LC 1), 12=1502(LC 1)
FORCES.		(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-2363/433, 4-5=-2948/529, 5-6=-5611/884, 6-7=-3410/593, 7-8=-3322/621, 8-9=-2620/521, 9-10=-2203/432, 10-11=-3058/496, 11-12=-603/148	
BOT CHORD	2-24=-395/2067, 23-24=-395/2072, 6-21=-322/2288, 20-21=-705/4944, 15-16=-352/2828, 11-15=-354/2820	
WEBS	4-23=-201/1427, 5-23=-2689/463, 21-23=-590/3446, 5-21=-188/1844, 6-20=-2426/478, 10-16=-1056/288, 10-15=0/290, 16-20=-176/1970, 9-20=-199/1077, 8-20=-187/1209	

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-1-8, Exterior(2E) 4-1-8 to 6-1-8, Interior(1) 6-1-8 to 15-5-8, Exterior(2E) 15-5-8 to 18-1-8, Exterior(2R) 18-1-8 to 21-1-8, Interior(1) 21-1-8 to 32-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=253, 12=229.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230757
3021298	B07	Roof Special	1	1		

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,

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0-10-8
2-9-8
4-9-8
11-3-0
13-9-8
14-1-8
19-5-8
24-4-8
29-3-8
31-7-0
32-5-8

0-10-8
2-9-8
2-0-0
6-5-8
2-6-8
0-4-0
5-4-0
4-11-0
4-11-0
2-3-8
0-10-8

ID:q0ZUiNd1SQn_5kyS6a2asYzca1-BvBKVMc9UOIA25p7pDdUyJDjkXA7p_aB4BINjfy9ONq

Job Reference (optional)

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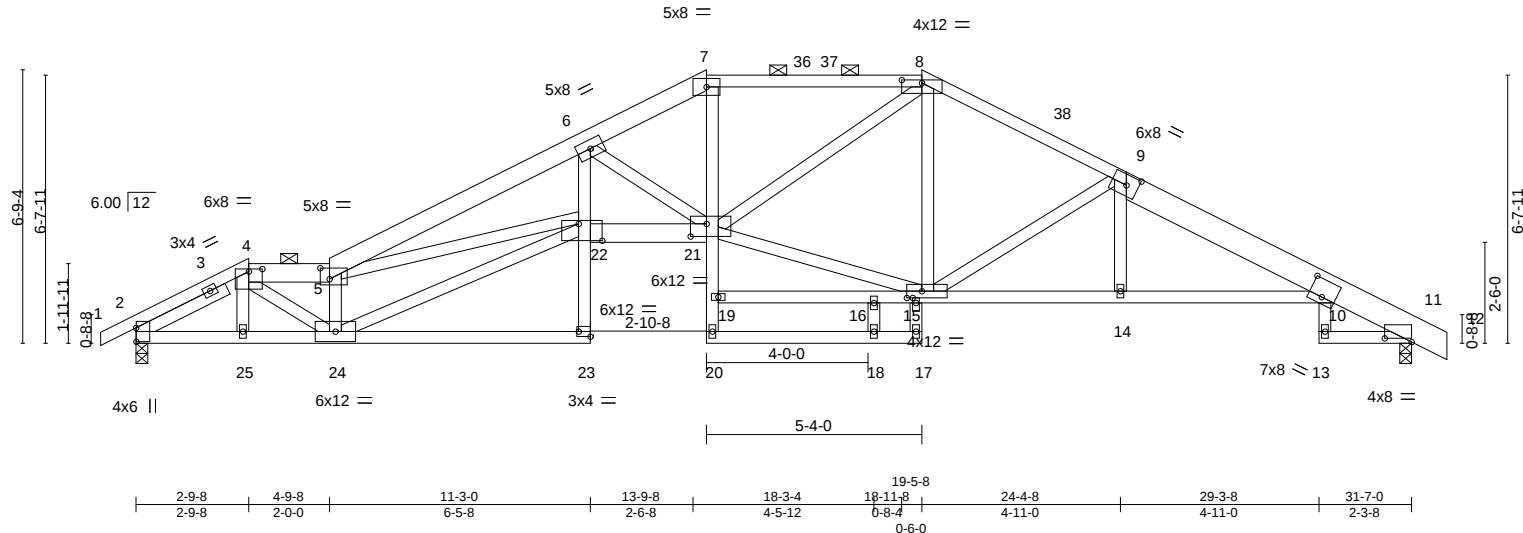


Plate Offsets (X,Y)--									
[2:0-4-1,0-0-1], [4:0-4-0,0-0-12], [5:0-2-12,0-3-4], [8:0-6-0,0-0-15], [9:0-3-8,0-3-0], [10:0-4-0,0-5-1], [11:0-8-0,0-1-2], [15:0-4-8,0-2-0], [15:0-1-8,0-1-0], [21:0-4-12,0-3-12], [22:0-7-0,0-5-0], [23:Edge,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.32 21-22 >999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.59 21-22 >646	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.36 11 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					
								Weight: 182 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD	TOP CHORD
2x4 SPF No.2 *Except*	Structural wood sheathing directly applied, except
4-5-5-7: 2x6 SPF No.2, 9-12: 2x8 SP 2400F 2.0E	2-0-0 oc purlins (2-10-0 max.): 4-5, 7-8.
BOT CHORD	BOT CHORD
2x4 SPF No.2 *Except*	Rigid ceiling directly applied. Except:
21-22: 2x6 SPF 2100F 1.8E	10-0-0 oc bracing: 15-16
WEBS	
2x4 SPF No.2	
SLIDER	
Left 2x4 SPF No.2 2-6-0	

REACTIONS.	(size)	2=0-3-8, 11=0-3-8
	Max Horz	2=-121(LC 13)
	Max Uplift	2=-243(LC 12), 11=-217(LC 13)
	Max Grav	2=1491(LC 1), 11=1502(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-2273/411, 4-5=-3665/631, 5-6=-5073/809, 6-7=-3370/588, 7-8=-2992/552, 8-9=-2350/441, 9-10=-3013/502, 10-11=-603/148
BOT CHORD	2-25=-373/1979, 24-25=-374/1986, 6-22=-190/1560, 21-22=-583/4418, 14-15=-369/2780, 10-14=-371/2773
WEBS	7-21=-138/1118, 4-24=-342/2145, 5-24=-2641/478, 22-24=-602/3570, 5-22=-72/1041, 6-21=-1769/383, 9-15=-867/244, 15-21=-211/2077, 8-21=-189/1173

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-9-8, Exterior(2E) 2-9-8 to 4-9-8, Interior(1) 4-9-8 to 14-1-8, Exterior(2R) 14-1-8 to 17-1-8, Interior(1) 17-1-8 to 19-5-8, Exterior(2R) 19-5-8 to 22-5-8, Interior(1) 22-5-8 to 32-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=243, 11=217.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230758
3021298	B08	Roof Special Girder	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:19 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-7II5w2eP0??tHOzWxefy1klzrLsMHYWUYVEToxY9ONo

Job Reference (optional)

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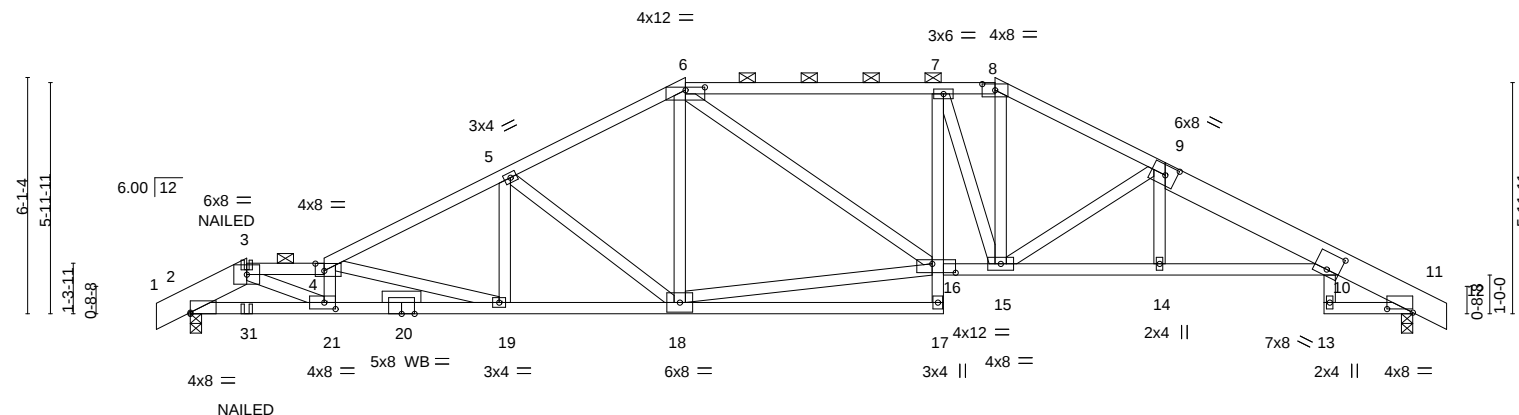


Plate Offsets (X,Y)--	[2:0-0-0,0-0-6], [4:0-2-12,0-2-4], [6:0-6-0,0-0-15], [8:0-4-0,0-1-15], [9:0-3-8,0-3-0], [10:0-4-0,0-5-1], [11:0-8-0,0-1-2], [16:0-7-4,0-2-12], [21:0-3-8,0-2-0]
-----------------------	---

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.92	Vert(LL)	-0.23	16	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.45	17-18	>845	180	
BCLL 0.0	Rep Stress Incr	NO	WB 0.59	Horz(CT)	0.22	11	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						
								Weight: 168 lb	FT = 20%

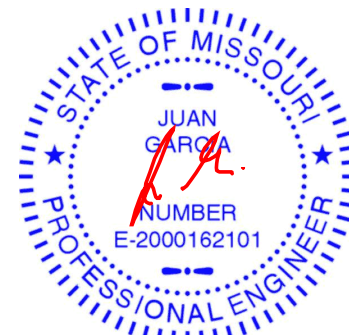
LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-11-11 oc purlins, except
1-3,9-12: 2x8 SP 2400F 2.0E	2-0-0 oc purlins (2-9-2 max.): 3-4, 6-8.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
2-20,10-16,17-20: 2x4 SPF 1650F 1.5E	8-7-5 oc bracing: 19-21.
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 11=0-3-8
	Max Horz 2=105(LC 36)
	Max Uplift 2=290(LC 8), 11=213(LC 9)
	Max Grav 2=1402(LC 1), 11=1485(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2221/428, 3-4=-4033/672, 4-5=-2855/422, 5-6=-2214/319, 6-7=-2298/286, 7-8=-2123/285, 8-9=-2470/289, 9-10=-3088/368, 10-11=-596/119
BOT CHORD	2-21=-431/1850, 19-21=-702/3885, 18-19=-377/2501, 15-16=-178/2291, 14-15=-234/2868, 10-14=-235/2860
WEBS	3-21=-332/2416, 4-21=-1068/198, 4-19=-1420/333, 5-19=-48/434, 5-18=-735/249, 6-18=-71/368, 16-18=-185/1737, 6-16=-113/599, 7-15=-637/184, 8-15=-139/1049, 9-15=-842/219

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=290, 11=213.
 - This truss 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.
 - "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 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



December 14, 2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230758
3021298	B08	Roof Special Girder	1	1	Job Reference (optional)	

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-8=-70, 8-10=-70, 10-12=-70, 17-22=-20, 16-25=-20, 13-28=-20

Concentrated Loads (lb)

Vert: 3=41(F) 31=43(F)



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	B09	Hip	1	1	149230759

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:20 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-bUsT7Of2mJ7kvYYiVMABayrCEIBd0TAem9_1K_y9ONn

0-10-8 5-1-9 9-5-8 17-5-8 20-1-8 27-3-8 29-7-0 30-5-8
0-10-8 5-1-9 4-3-15 8-0-0 2-8-0 7-2-0 2-3-8 0-10-8

Scale = 1:52.8

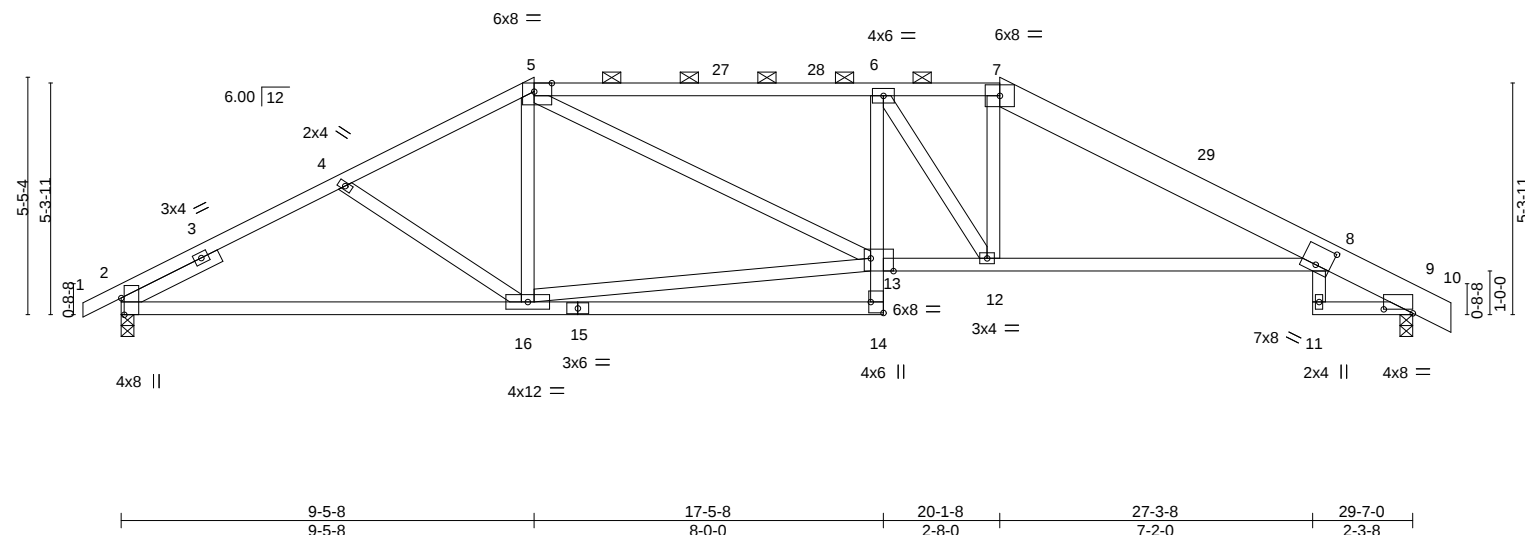


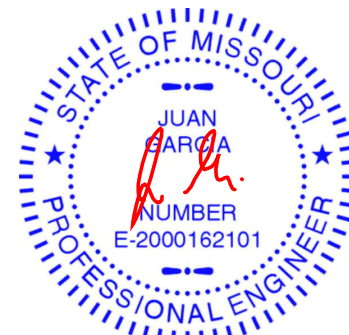
Plate Offsets (X,Y)-- [2:0-4-9,Edge], [5:0-4-13,Edge], [8:0-4-0,0-5-1], [9:0-8-0,0-1-2], [13:0-6-4,Edge], [14:Edge,0-3-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.25	12-23	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.48	12-23	>741	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.22	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 144 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except
5-7: 2x4 SPF 1650F 1.5E, 7-10: 2x8 SP 2400F 2.0E	2-0-0 oc purlins (3-4-5 max.): 5-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
SLIDER Left 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-96(LC 13)
Max Uplift 2=-194(LC 12), 9=-191(LC 13)
Max Grav 2=1393(LC 1), 9=1399(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2164/387, 4-5=-1989/357, 5-6=-2431/459, 6-7=-2226/406, 7-8=-2456/378,
8-9=-557/137
BOT CHORD 2-16=-265/1875, 14-16=0/268, 12-13=-270/2401, 8-12=-226/2208
WEBS 13-16=-217/1526, 5-13=-180/848, 6-12=-474/185, 7-12=-110/603

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-5-8, Exterior(2R) 9-5-8 to 13-8-7, Interior(1) 13-8-7 to 20-1-8, Exterior(2R) 20-1-8 to 24-4-7, Interior(1) 24-4-7 to 30-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=194, 9=191.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	B10	Hip	1	1	149230760
Job Reference (optional)					

Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:21 2021 Page 1	
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0-10-8	4-10-5	3-3-3	6-8-0	6-8-0	3-3-3
			29-7-0		
			30-5-8		
			0-10-8		
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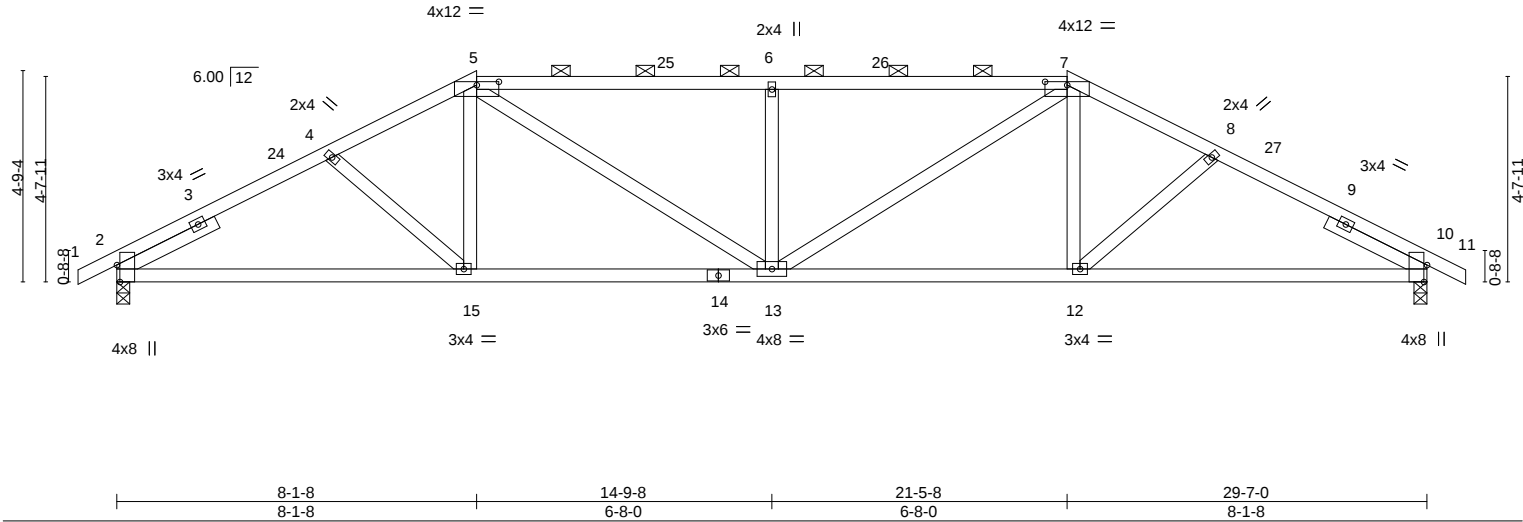


Plate Offsets (X,Y)--		[2:0-4-9,Edge], [5:0-6-0,0-0-15], [7:0-6-0,0-0-15], [10:0-4-9,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.60
TCDL 10.0	Lumber DOL	1.15	BC 0.63
BCLL 0.0	Rep Stress Incr	YES	WB 0.21
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
		DEFL. in (loc) l/defl L/d	
		Vert(LL) -0.14 13 >999 240	
		Vert(CT) -0.26 13-15 >999 180	
		Horz(CT) 0.09 10 n/a n/a	
		PLATES GRIP	
		MT20 197/144	
		Weight: 119 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except
BOT CHORD	2x4 SPF No.2		2-0-0 oc purlins (3-1-13 max.): 5-7.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 2-6-0, Right 2x4 SPF No.2 2-6-0		

REACTIONS.		(size) 2=0-3-8, 10=0-3-8
		Max Horz 2=77(LC 16)
		Max Uplift 2=-251(LC 12), 10=-251(LC 13)
		Max Grav 2=1393(LC 1), 10=1393(LC 1)

FORCES.		(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-2164/399, 4-5=-2046/376, 5-6=-2345/434, 6-7=-2345/434, 7-8=-2046/376, 8-10=-2164/400	
BOT CHORD	2-15=-347/1871, 13-15=-268/1824, 12-13=-201/1824, 10-12=-270/1871	
WEBS	5-15=-5/273, 5-13=-186/724, 6-13=-547/221, 7-13=-186/724, 7-12=-6/273	

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-1-8, Exterior(2R) 8-1-8 to 12-4-7, Interior(1) 12-4-7 to 21-5-8, Exterior(2R) 21-5-8 to 25-8-7, Interior(1) 25-8-7 to 30-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=251, 10=251.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14,2021

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	B11	HIP GIRDER	1	1	I49230761
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:23 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-03YbmQhw3EWJm0GHAUkuCaThyyF3Dkj4S7ChxJy9ONK

0-10-8 3-6-8 6-9-8 12-0-15 17-6-1 22-9-8 26-0-8 29-7-0 30-5-8
0-10-8 3-6-8 3-3-0 5-3-7 5-5-3 5-3-7 3-3-0 3-6-8 0-10-8

Scale = 1:51.9

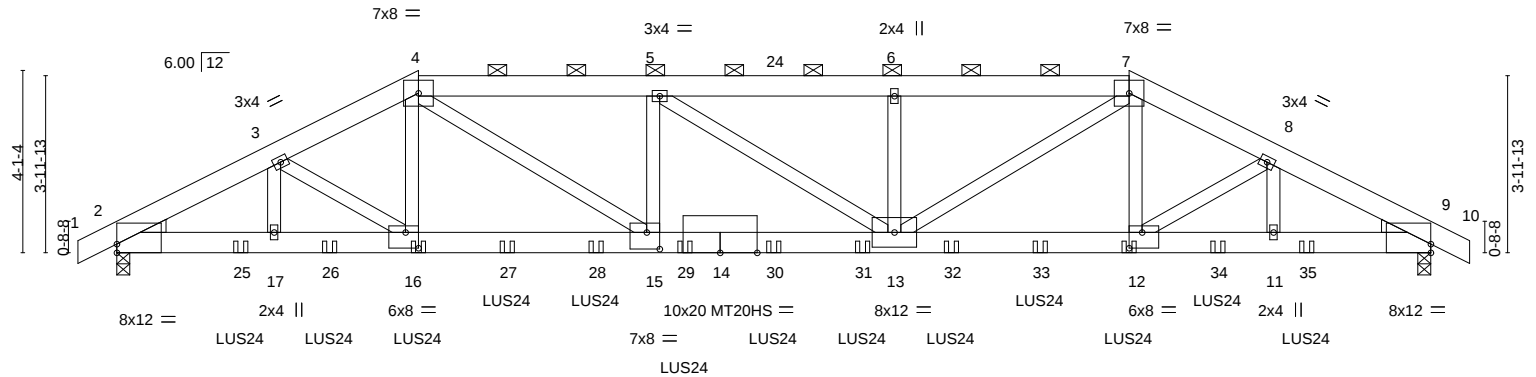


Plate Offsets (X, Y)--		[2:0-0-0,0-2-6], [9:0-0-0,0-2-6], [12:0-3-8,0-4-4], [15:0-3-8,0-4-8], [16:0-3-8,0-4-4]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.72	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.72	Vert(LL) -0.31 13-15 >999 240
BCLL 0.0	Rep Stress Incr NO	WB 0.71	Vert(CT) -0.56 13-15 >636 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.13 9 n/a n/a
		PLATES	
		MT20 197/144	
		MT20HS 187/143	
		Weight: 177 lb FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied or 2-2-12 oc purlins, except
4-7: 2x6 SPF 2100F 1.8E	2-0-0 oc purlins (3-0-13 max.): 4-7.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 6-8-10 oc bracing.
WEBS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS.	(size) 2=0-3-8, 9=0-3-8
	Max Horz 2=66(LC 8)
	Max Uplift 2=1073(LC 8), 9=1122(LC 9)
	Max Grav 2=3956(LC 1), 9=4000(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7003/1908, 3-4=-7026/1944, 4-5=-8617/2436, 5-6=-8615/2441, 6-7=-8616/2442, 7-8=-7054/1977, 8-9=-7069/1985
BOT CHORD	2-17=-1688/6135, 16-17=-1688/6135, 15-16=-1702/6290, 13-15=-2384/8616, 12-13=-1690/6315, 11-12=-1690/6194, 9-11=-1690/6194
WEBS	3-16=-155/377, 4-16=-300/1098, 4-15=-870/2878, 5-15=-452/186, 6-13=-406/166, 7-13=-843/2847, 7-12=-328/1123, 8-12=-111/338

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) All plates are MT20 plates unless otherwise indicated.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1073, 9=1122.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-9-8 from the left end to 20-9-8 to connect truss(es) to front face of bottom chord.
 - 10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 22-9-8 from the left end to 26-9-8 to connect truss(es) to front face of bottom chord.
 - 11) Fill all nail holes where hanger is in contact with lumber.
 - 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO	I49230761
3021298	B11	HIP GIRDER	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:23 2021 Page 2
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-03YbmQhw3EWJm0GHAUkuCaThyyF3Dkj4S7ChxJy9ONk

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-4=-70, 4-7=-70, 7-10=-70, 18-21=-20
 - Concentrated Loads (lb)
 - Vert: 16=-393(F) 12=-393(F) 25=-404(F) 26=-388(F) 27=-393(F) 28=-393(F) 29=-393(F) 30=-393(F) 31=-393(F) 32=-393(F) 33=-393(F) 34=-388(F) 35=-457(F)

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	C01	ROOF SPECIAL GIRDER	1	2	149230762

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,

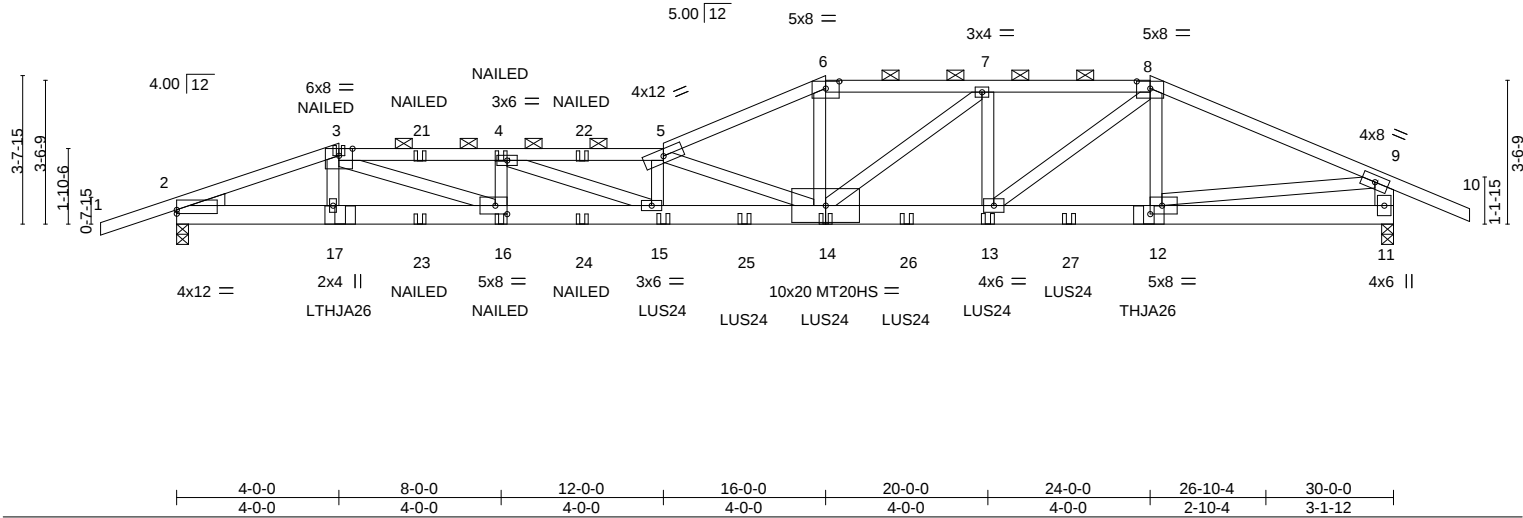
8.430 s Aug 16 2021
MiTek Industries, Inc.
Mon Dec 13 11:38:25 2021
Page 1

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-1-10-8
4-0-0
8-0-0
12-0-0
16-0-0
20-0-0
24-0-0
26-10-4
30-0-0
31-10-8

1-10-8
4-0-0
4-0-0
4-0-0
4-0-0
4-0-0
4-0-0
2-10-4
3-1-12
1-10-8

Scale = 1:56.8



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230762
3021298	C01	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

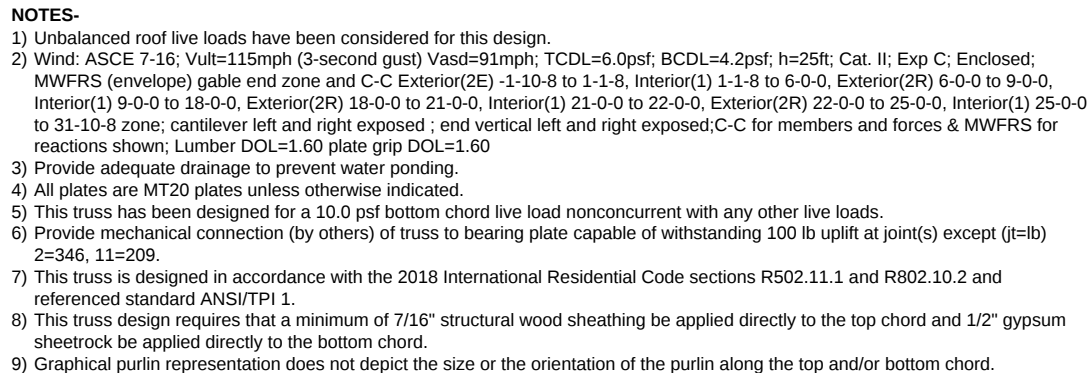
Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Aug 16 2021
MiTek Industries, Inc.
Mon Dec 13 11:38:25 2021
Page 2
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-ySgMB5jAbrm1?JQfhvmMH?Y?smxOheBNwRho?By9ONi

- NOTES-**
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - Use Simpson Strong-Tie LTHJA26 (LTHJA26 on 2 ply, Right Hand Hip) or equivalent at 4-0-6 from the left end to connect truss(es) to back face of bottom chord.
 - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 12-0-0 from the left end to 22-0-0 to connect truss(es) to back face of bottom chord.
 - Use Simpson Strong-Tie THJA26 (THJA26 on 2 ply, Left Hand Hip) or equivalent at 23-11-10 from the left end to connect truss(es) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.
 - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

- LOAD CASE(S)** Standard
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-3=-70, 3-5=-70, 5-6=-70, 6-8=-70, 8-9=-70, 9-10=-70, 11-18=-20
 - Concentrated Loads (lb)
 - Vert: 3=-79(B) 14=-290(B) 17=-223(B) 16=-48(B) 4=-79(B) 15=-282(B) 13=-290(B) 12=-631(B) 21=-79(B) 22=-82(B) 23=-48(B) 24=-51(B) 25=-285(B) 26=-290(B) 27=-290(B)

Job Reference (optional)

Scale = 1:56.8



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230764
3021298	C03	Roof Special	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

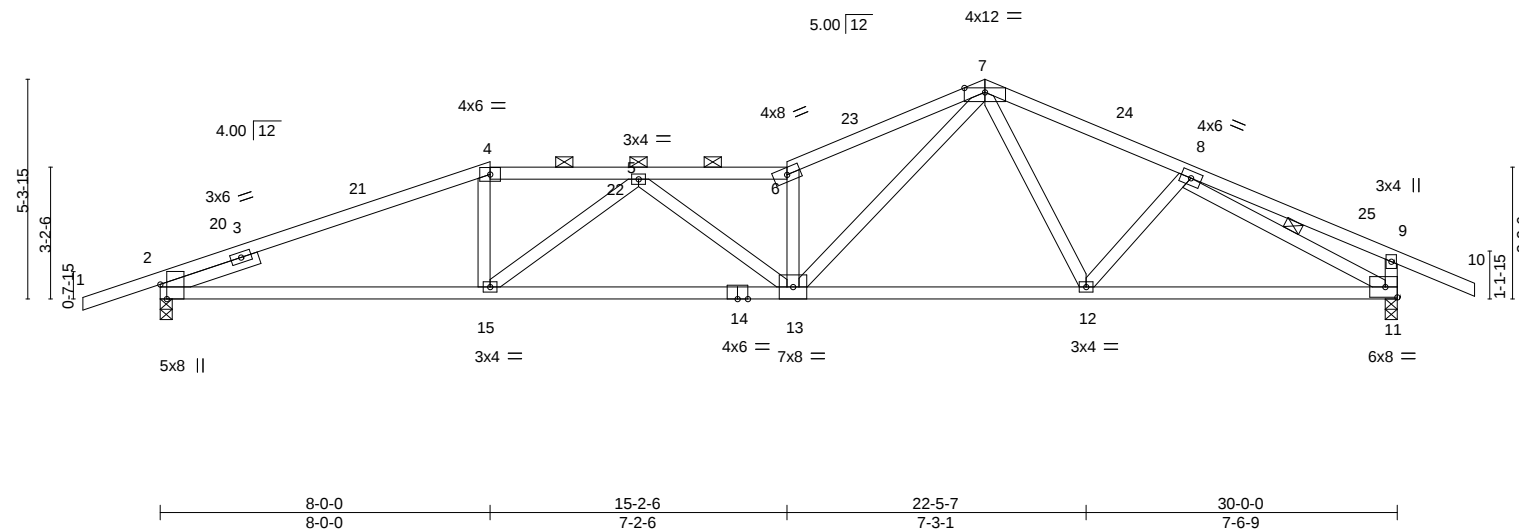
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:28 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-M1LUp7I3um8csn9Ez1J3veAWnzW6u1pcPwScWy9ONf

Job Reference (optional)

-1-10-8	8-0-0	11-7-3	15-2-6	20-0-0	24-10-4	30-0-0	31-10-8
1-10-8	8-0-0	3-7-3	3-7-3	4-9-10	4-10-4	5-1-12	1-10-8

Scale = 1:55.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.84	Vert(LL)	-0.26 13-15	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.53 13-15	>681	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.56	Horz(CT)	0.11 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 119 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
Max Horz 2=88(LC 16)
Max Uplift 2=339(LC 8), 11=227(LC 13)
Max Grav 2=1474(LC 1), 11=1486(LC 1)

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

TOP CHORD 2-4=-2857/656, 4-5=-2623/656, 5-6=-3383/810, 6-7=-3651/910, 7-8=-2047/524, 8-9=-257/96, 9-11=-406/205
BOT CHORD 2-15=-548/2650, 13-15=-678/3228, 12-13=-300/1757, 11-12=-357/1832
WEBS 4-15=-63/599, 6-13=-1638/461, 7-13=-534/2270, 7-12=-52/265, 8-11=-1944/476, 5-15=-769/211

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 31-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=339, 11=227.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	C04	Roof Special	1	1	I49230765

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

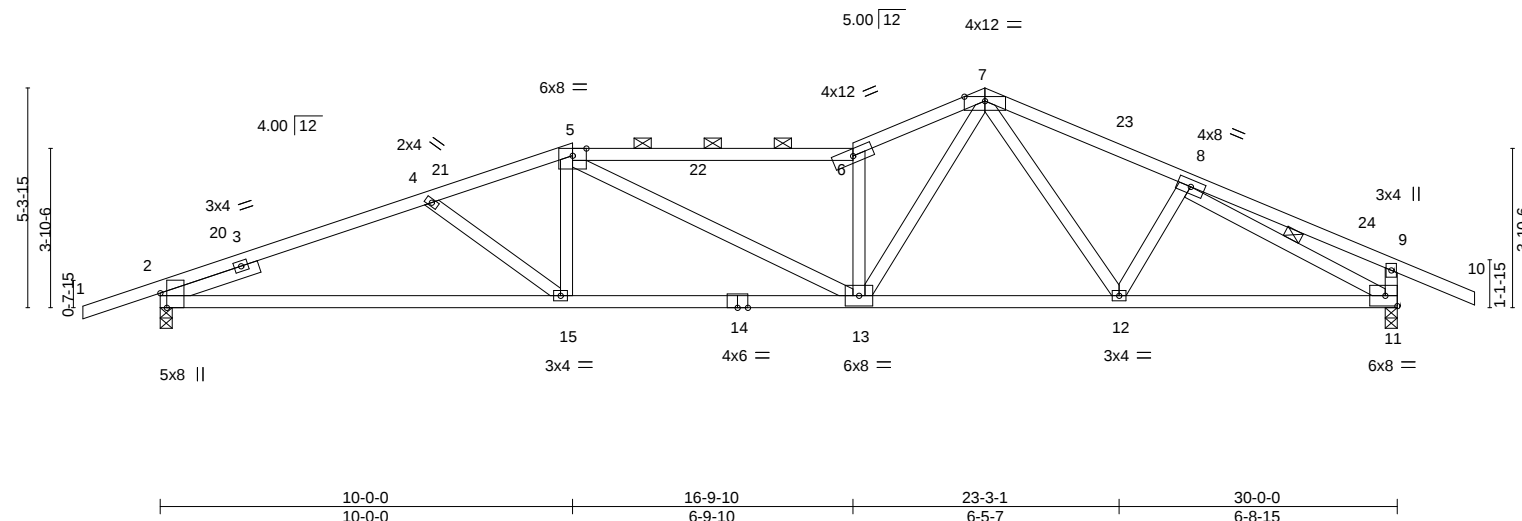
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:29 2021 Page 1

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Job Reference (optional)

-1-10-8	6-7-0	10-0-0	16-9-10	20-0-0	24-10-4	30-0-0	31-10-8
1-10-8	6-7-0	3-5-0	6-9-10	3-2-6	4-10-4	5-1-12	1-10-8

Scale = 1:55.9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.21 13-15 >999 240	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.39 13-15 >914 180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.11 11 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 123 lb FT = 20%			

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
5-6: 2x4 SPF 1650F 1.5E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS.

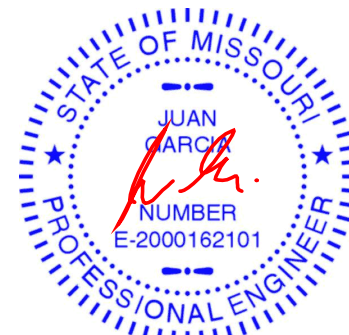
(size) 2=0-3-8, 11=0-3-8
Max Horz 2=88(LC 16)
Max Uplift 2=-346(LC 8), 11=-227(LC 13)
Max Grav 2=1474(LC 1), 11=1486(LC 1)

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

TOP CHORD 2-4=-2818/682, 4-5=-2639/635, 5-6=-2741/701, 6-7=-2976/784, 7-8=-2057/541, 9-11=-397/205
BOT CHORD 2-15=-582/2612, 13-15=-497/2497, 12-13=-303/1746, 11-12=-358/1842
WEBS 5-15=0/339, 5-13=-90/278, 6-13=-1533/459, 7-13=-444/1797, 7-12=-78/271, 8-11=-1970/475

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 31-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=346, 11=227.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	C05	Roof Special	1	1	I49230766
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-JQTFEpmJQOOK65Jd4SMX_3GvnnbmMqo63jPZgPy9ONd

-1-10-8	6-1-12	12-0-0	18-4-13	20-0-0	24-8-0	29-7-8
1-10-8	6-1-12	5-10-4	6-4-13	1-7-3	4-8-0	4-11-8

Scale = 1:53.9

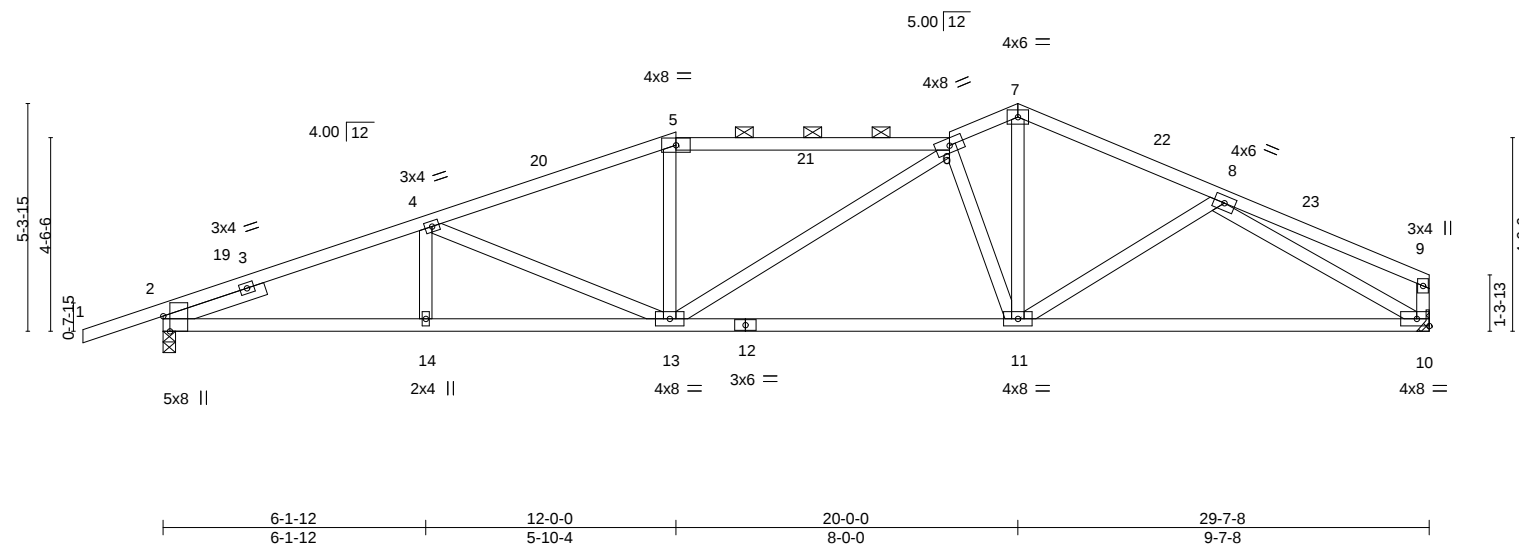


Plate Offsets (X,Y)-- [2:0-4-4,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.19 10-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.40 10-11	>883	180		
BCLL	0.0	Rep Stress Incr	YES	WB	1.00	Horz(CT)	0.10 10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 121 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 2-6-0

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 10=Mechanical
Max Horz 2=103(LC 16)
Max Uplift 2=-351(LC 8), 10=-181(LC 8)
Max Grav 2=1462(LC 1), 10=1322(LC 1)

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

TOP CHORD 2-4=-2834/652, 4-5=-2413/598, 5-6=-2249/598, 6-7=-1940/532, 7-8=-1944/495, 8-9=-302/69, 9-10=-256/85
BOT CHORD 2-14=-617/2634, 13-14=-617/2634, 11-13=-462/2160, 10-11=-415/1730
WEBS 4-13=-440/161, 5-13=0/343, 6-11=-1224/368, 7-11=-315/1328, 8-10=-1795/472

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 12-0-0, Exterior(2R) 12-0-0 to 15-0-0, Interior(1) 15-0-0 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 29-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=351, 10=181.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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

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

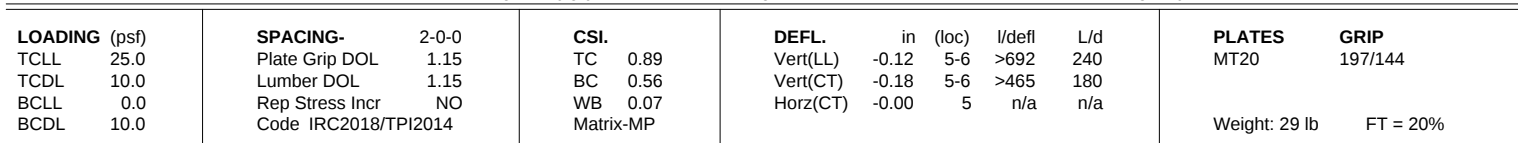


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Scale = 1:21.6



Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:33 2021 Page 1
 ID:q0ZUiNd1SQn_5kyS6a2asYzcail-j_9NsppBjJmuzY1ClavEchuNI_jzZPDYmhdDHky9ONa
 -2-1-8 1-6-14 4-3-5 8-6-11
 2-1-8 1-6-14 2-8-7 4-3-5



REACTIONS. (size) 5=Mechanical, 6=0-9-15
 Max Horz 6=111(LC 7)
 Max Uplift 5=-72(LC 5), 6=-245(LC 4)
 Max Grav 5=217(LC 1), 6=697(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 6=245.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-20, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 10=37(F) 11=-5(B) 14=-6(F=8, B=-14)

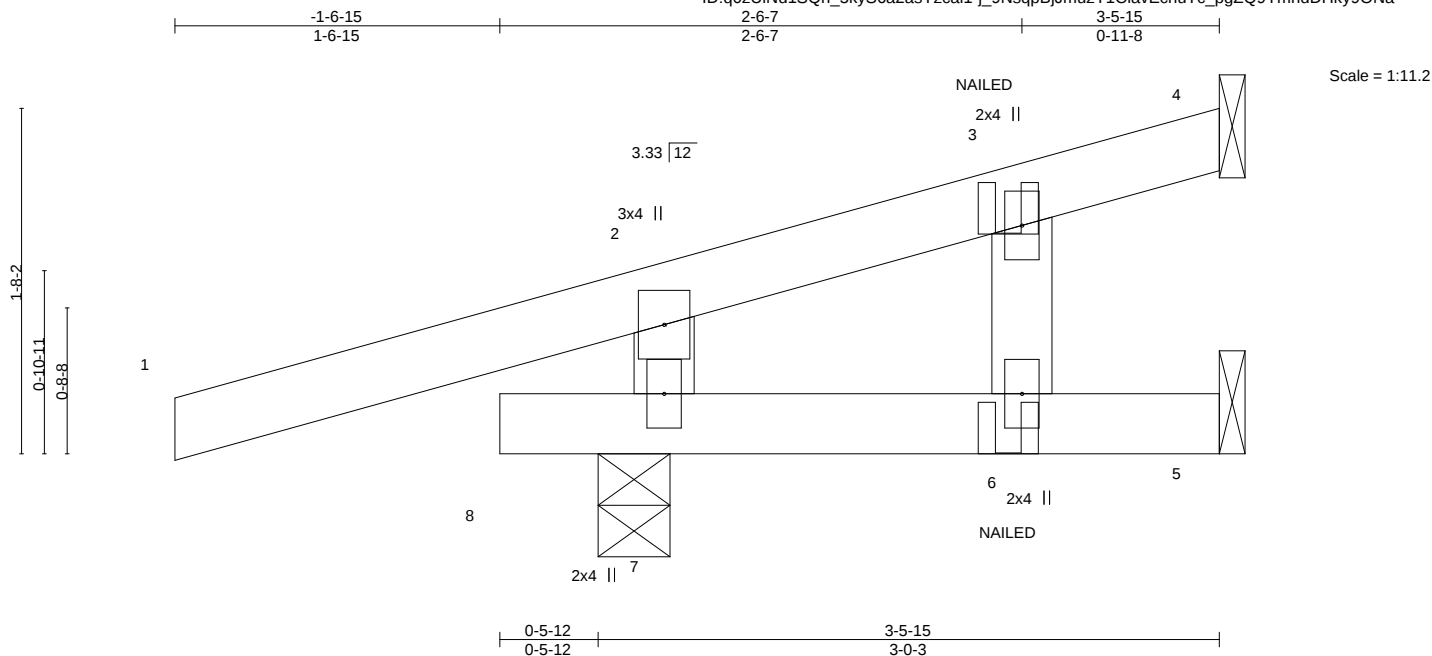


Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230769
3021298	CJ03	Jack-Open Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:33 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-j_9NsqpBjJmuzY1ClavEchuTc_pgZQ9YmhdDHky9ONa



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	0.00	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	0.00	6-7	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.01	Horz(CT)	-0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 7=0-4-3
Max Horz 7=55(LC 4)
Max Uplift 4=-19(LC 8), 5=-3(LC 9), 7=-152(LC 4)
Max Grav 4=37(LC 1), 5=33(LC 21), 7=377(LC 1)

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

TOP CHORD 2-7=-312/162

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 7=152.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



December 14, 2021

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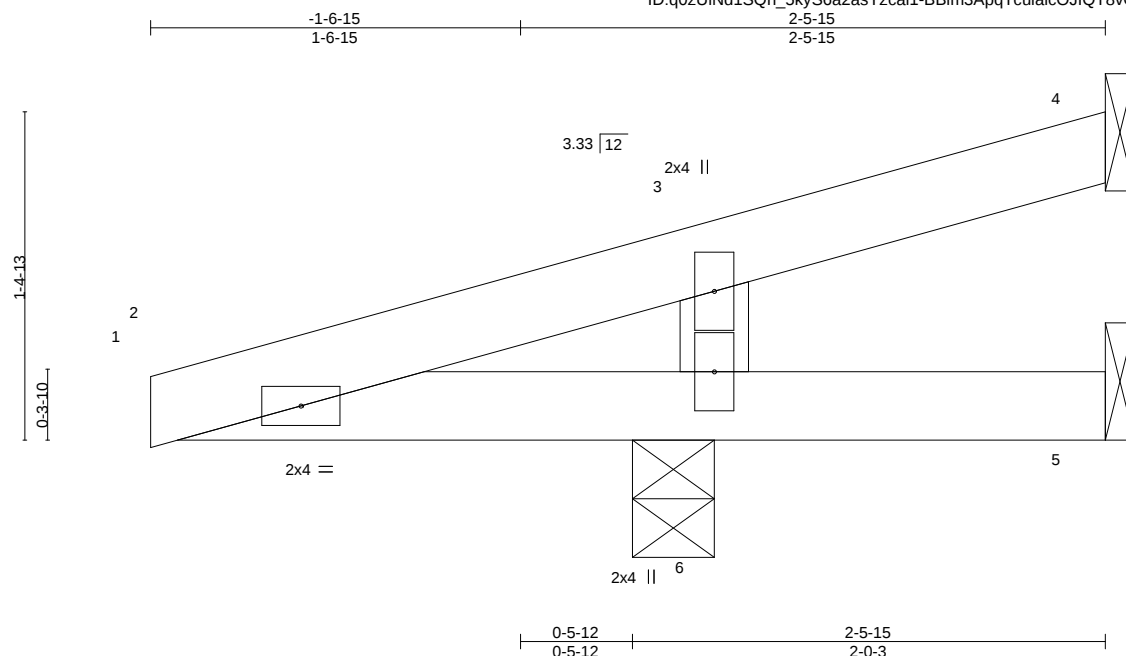
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:34 2021 Page 1
ID:g0zUiNd1SQn 5kyS6a2asYzcaj1-BBim3AqgTculaicOJlOT8vOhlO6mIsTh LNmpAv9ONZ



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc)	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.26	Vert(LL) -0.01 5-6	>999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT) 0.00 5-6	>999 180		
BCLL 0.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.02 4	n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP			Weight: 10 lb	FT = 20%

LUMBER-
TOP CHO
BOT CHO
WEBS

REACTION

FORCES.
WEBS

NOTES-
1) Wind: A
MWFR
exposed
2) This tru
3) Refer to
4) Provide
6=164.
5) This tru
referen

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

BRACING-
TOP CHOR
BOT CHOR

Structural wood sheathing directly applied or 2-5-15 oc purlins.
Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 5=Mechanical, 6=0-4-3
 Max Horz 6=45(LC 8)
 Max Uplift 4=-32(LC 3), 5=-57(LC 1), 6=-164(LC 8)
 Max Grav 4=5(LC 8), 5=33(LC 8), 6=431(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-253/370

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C/C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 6=164.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

WARNING: Velly design parameters are 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	SUMMIT/HAWTHORN RIDGE #139/MO	I49230771
3021298	CJ06	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:35 2021 Page 1

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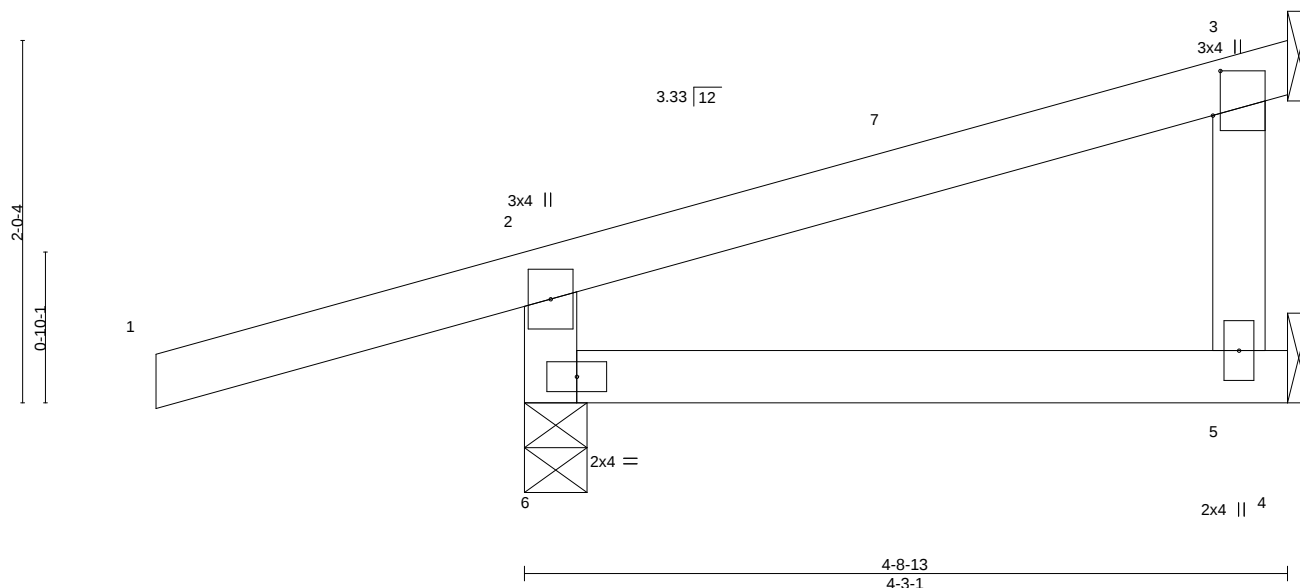


Plate Offsets (X,Y)--		[3:0-3-0,0-0-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.32	Vert(LL)	-0.01 5-6 >999	240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.11	Vert(CT)	-0.02 5-6 >999	180	
BCLL	0.0	Rep Stress Incr YES		WB	0.00	Horz(CT)	0.01 3 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 14 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

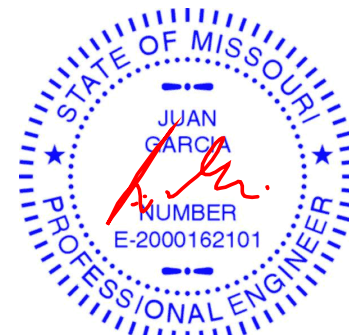
(size) 6=0-4-3, 5=Mechanical, 3=Mechanical
Max Horz 6=67(LC 8)
Max Uplift 6=-145(LC 8), 3=-49(LC 12)
Max Grav 6=371(LC 1), 5=79(LC 3), 3=98(LC 1)

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

TOP CHORD 2-6=-324/338

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-6-15 to 2-8-0, Exterior(2R) 2-8-0 to 4-5-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=145.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



December 14, 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



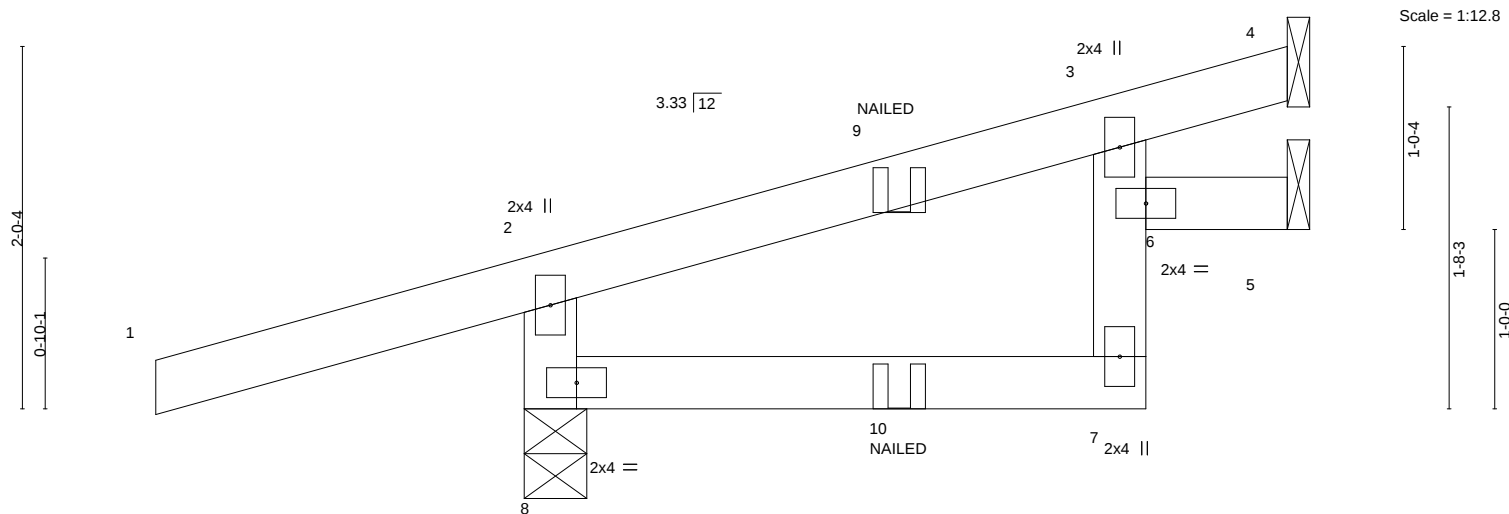
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230772
3021298	CJ07	Jack-Open Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:36 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-7ZqWUusr4?E8Tq0mnRjTxDKW0vCr0mnz_Sfstu2y9ONX



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	in (loc)	l/defl	L/d	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(LL)	-0.01 6 >999	240			
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Vert(CT)	-0.01 6 >999	180			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR		Horz(CT)	-0.01 4 n/a	n/a			
										Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=0-4-3, 4=Mechanical, 5=Mechanical
Max Horz 8=69(LC 4)
Max Uplift 8=-147(LC 4), 4=-24(LC 4), 5=-19(LC 8)
Max Grav 8=376(LC 1), 4=80(LC 1), 5=59(LC 3)

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

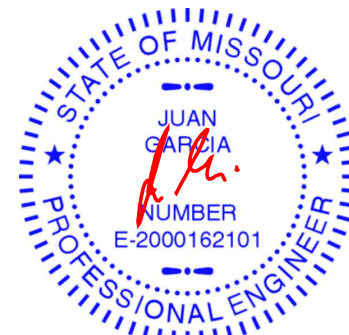
TOP CHORD 2-8=-334/157

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 8=147.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 7-8=-20, 5-6=-20
Concentrated Loads (lb)
Vert: 10=4(F)



December 14, 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

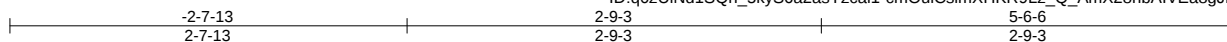
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230773
3021298	CJ08	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:37 2021 Page 1

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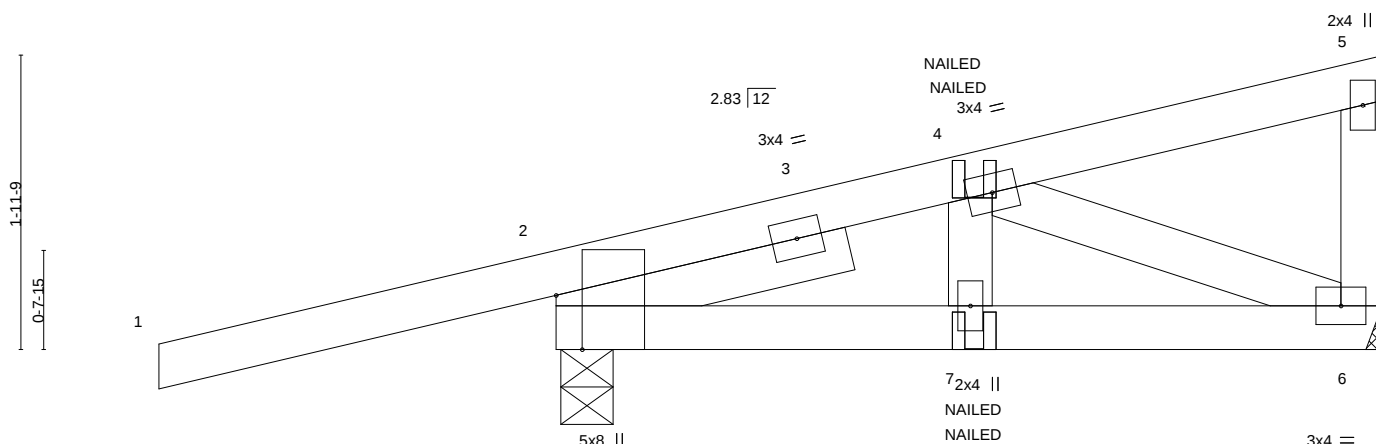


Plate Offsets (X,Y)--	[2:0-4-5,Edge]	0-0-6	2-9-3	5-6-6
		0-0-6	2-8-13	2-9-3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.01	6-7	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 23 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-

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

REACTIONS.

(size) 2=0-4-3, 6=Mechanical
 Max Horz 2=77(LC 7)
 Max Uplift 2=-188(LC 4), 6=-42(LC 8)
 Max Grav 2=480(LC 1), 6=203(LC 1)

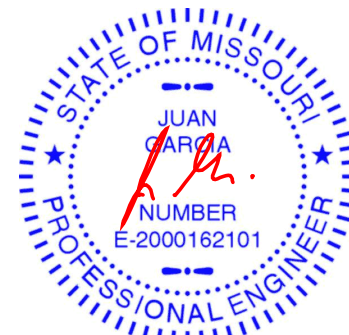
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=188.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-5=-70, 6-8=-20
 Concentrated Loads (lb)
 Vert: 7=-13(B)



December 14, 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

MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

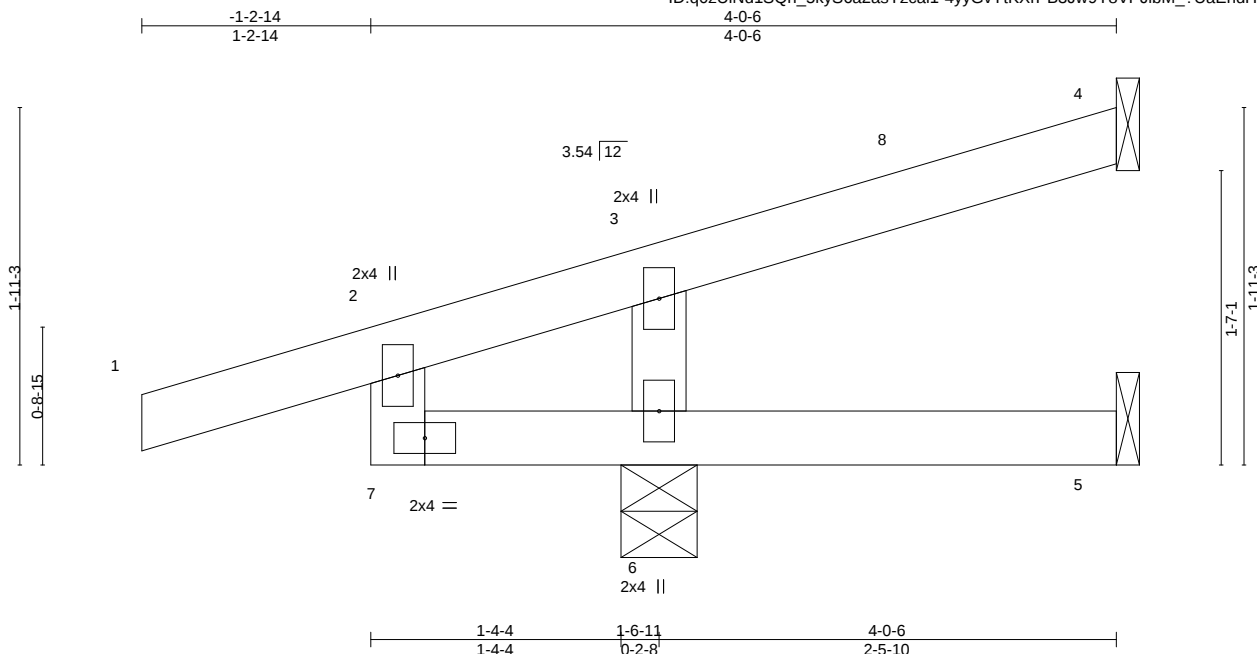
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230774
3021298	CJ09	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:38 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-4yyGvYtKXrPB3Jw9Y8VPJlbM_?UaEhdHvzL_yxy9ONV



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.01	5-6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	0.01	5-6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.04	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

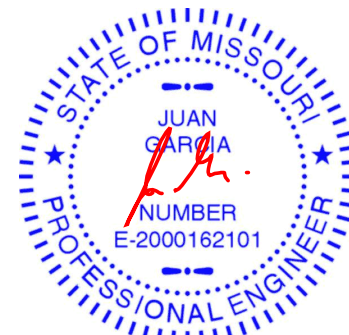
(size) 4=Mechanical, 5=Mechanical, 6=0-4-15
Max Horz 6=60(LC 8)
Max Uplift 4=-25(LC 12), 5=-33(LC 1), 6=-185(LC 8)
Max Grav 4=19(LC 1), 5=32(LC 8), 6=454(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-278/311

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -1-2-14 to 3-0-1, Exterior(2R) 3-0-1 to 3-11-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5 except (jt=lb) 6=185.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

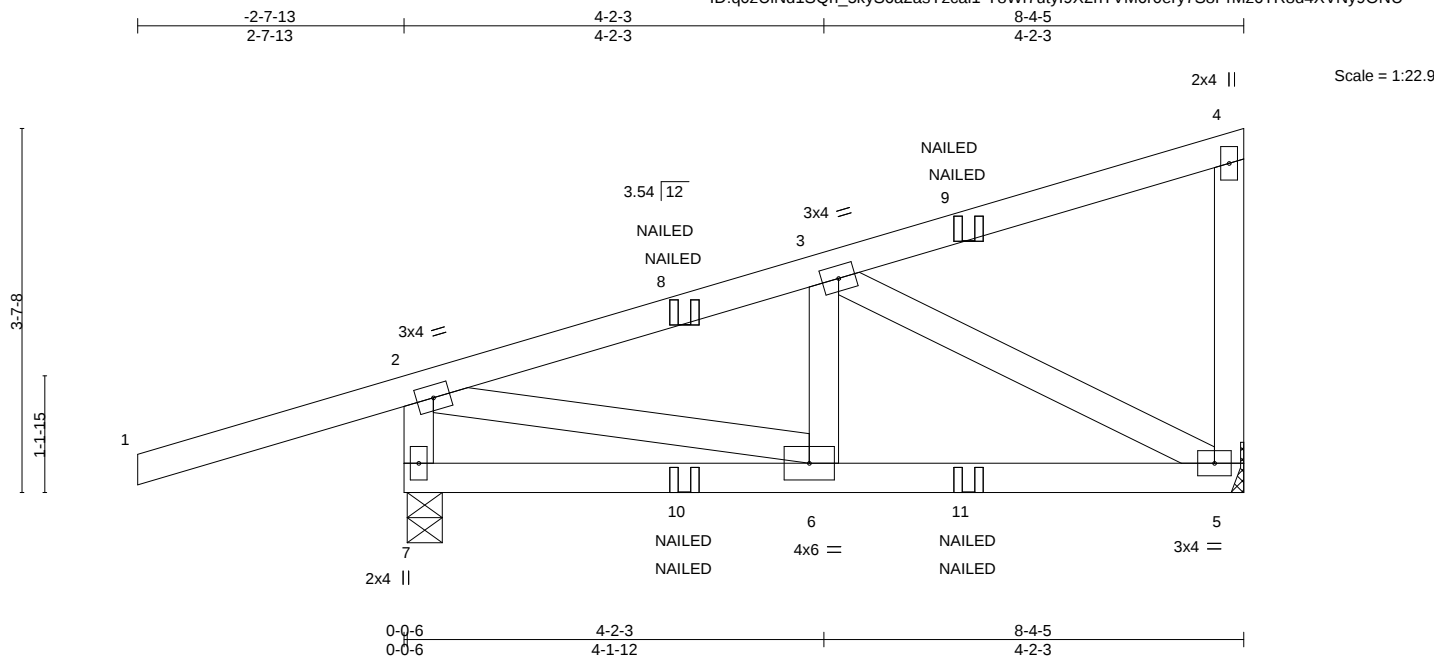
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230775
3021298	CJ10	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:39 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-Y8Wf7utyI9X2hTVM6r0ery7S8PrMz6TR8d4XVny9ONU



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.01	5-6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.03	5-6	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.14	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 38 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=0-4-3, 5=Mechanical
Max Horz 7=156(LC 5)
Max Uplift 7=225(LC 4), 5=-113(LC 5)
Max Grav 7=598(LC 21), 5=369(LC 1)

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

TOP CHORD 2-7=-572/235, 2-3=-426/106
BOT CHORD 5-6=-162/357
WEBS 2-6=-80/366, 3-5=-402/152

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=225, 5=113.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 8=71(B) 9=-53(F) 10=-3(F) 11=-39(F=-33, B=-6)



December 14, 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



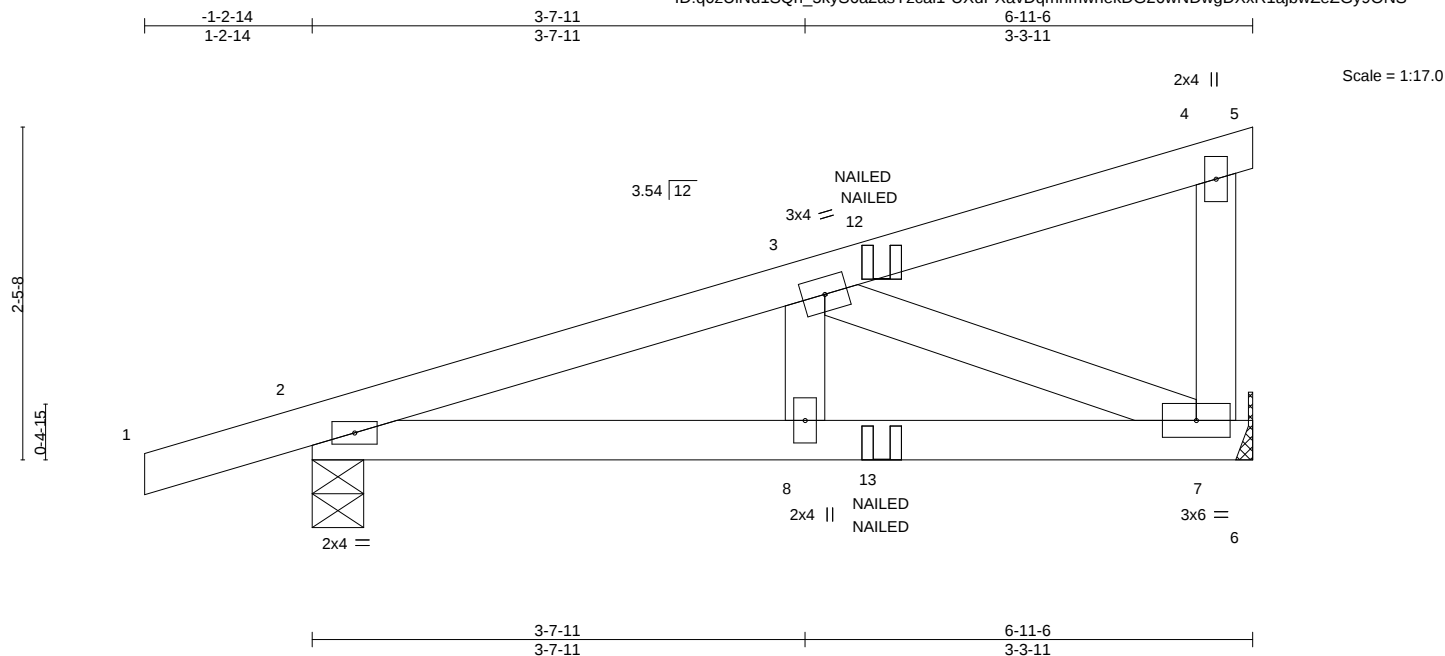
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	CJ12	Diagonal Hip Girder	2	1	I49230777
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:41 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-UXdPXavDqmmmwnekDG26wNDwgDXxR1ajbwZeZGy9ONS



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	-0.01	8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.01	8	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.11	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 24 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-4-9, 7=Mechanical
Max Horz 2=99(LC 7)
Max Uplift 2=-118(LC 4), 7=-76(LC 8)
Max Grav 2=402(LC 1), 7=316(LC 1)

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

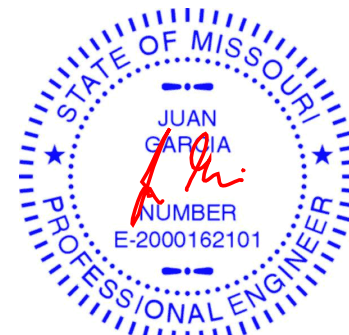
TOP CHORD 2-3=-528/94
BOT CHORD 2-8=-104/481, 7-8=-104/481
WEBS 3-7=-516/132

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 2=118.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



December 14, 2021

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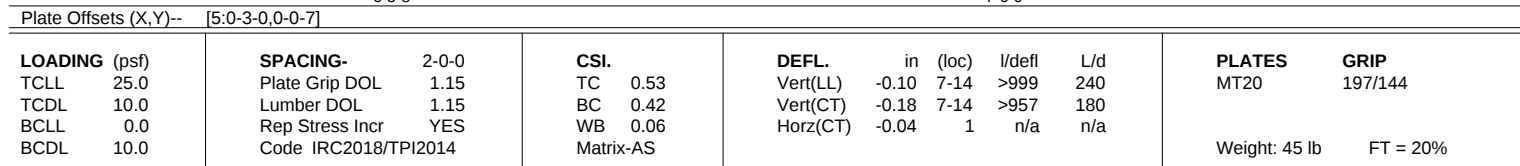
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:42 2021 Page 1
ID:q0zUjNd1SQn_5kyS6a2asYzcai1-yjBnlwrb4vdYxDwnzaLTbl_?cpAAVWtqaJB6iy9ONR
6-5-8 13-11-8 15-10-0
6-5-8 7-6-0 1-10-8
Scale = 1:26.3



REACTIONS. (size) 1=Mechanical, 5=0-3-8
 Max Horz 5=-76(LC 9)
 Max Uplift 1=-112(LC 8), 5=-204(LC 9)
 Max Grav 1=619(LC 1), 5=768(LC 1)

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

TOP CHORD	1-3=-924/347, 3-5=-871/324
BOT CHORD	1-7=-258/827, 5-7=-258/827
WEBS	3-7=0/269

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 6-5-8, Exterior(2R) 6-5-8 to 9-5-8, Interior(1) 9-5-8 to 15-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=112, 5=204.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230779
3021298	D02	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:43 2021 Page 2
ID:q0zUiNd1SQn_5kyS6a2asYzca1-Qwl9yFwTMN1U94o7Lh5a0oI52042vxJ03E2le8y9ONQ

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
 - Vert: 1-4=-70, 4-5=-70, 5-8=-70, 11-15=-20
- Concentrated Loads (lb)
 - Vert: 10=-232(F) 9=-232(F) 19=-68(F) 20=-68(F) 21=-68(F) 22=-40(F) 23=-40(F) 24=-40(F)

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



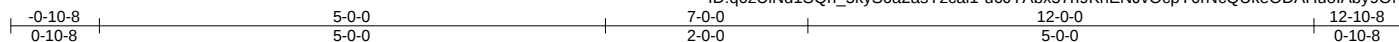
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	E01	Hip Girder	1	1	149230780
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:44 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-u6JYAbx57h9KnENJvOcpY0rNcQUkeODAhuolAby9ONP



Scale = 1:22.8

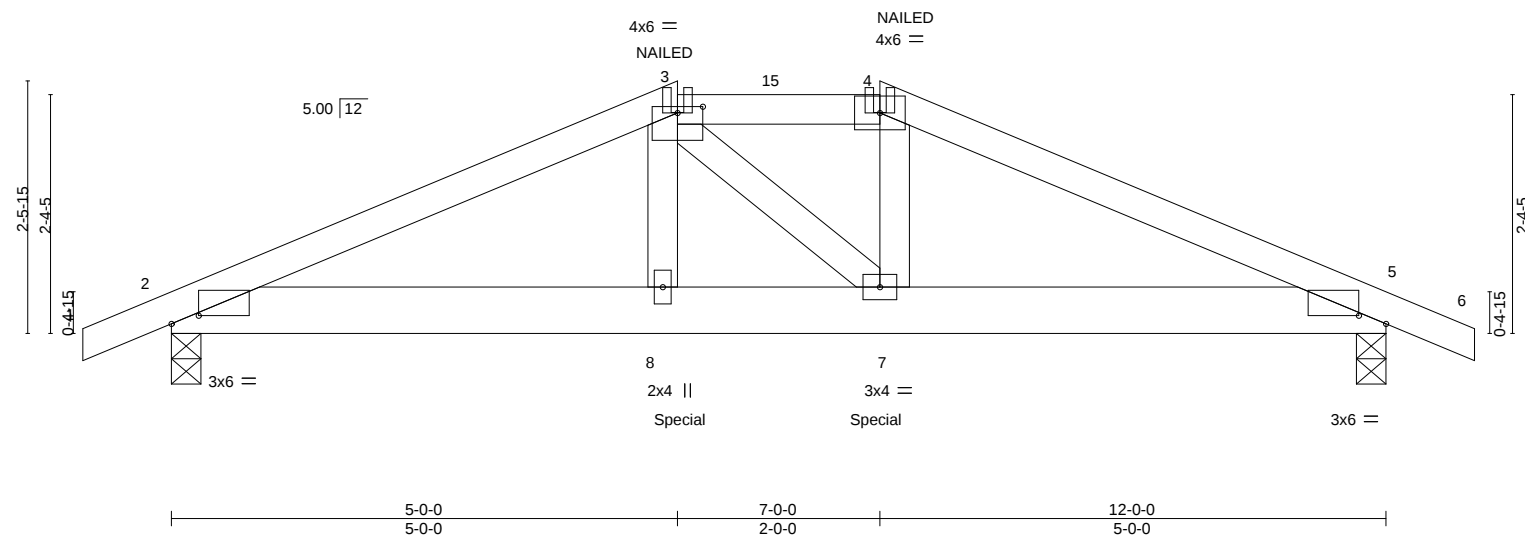


Plate Offsets (X,Y)--		[2:0-3-4,0-1-0], [3:0-3-0,0-0-12], [5:0-3-4,0-0-15]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.34	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.48	Vert(LL) -0.04 8 >999 240
BCLL 0.0	Rep Stress Incr NO	WB 0.11	Vert(CT) -0.07 8 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.02 5 n/a n/a
		PLATES MT20	
		GRIP 197/144	
		Weight: 45 lb FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=-42(LC 34)
Max Uplift 2=-242(LC 8), 5=-242(LC 9)
Max Grav 2=1016(LC 1), 5=1016(LC 1)

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

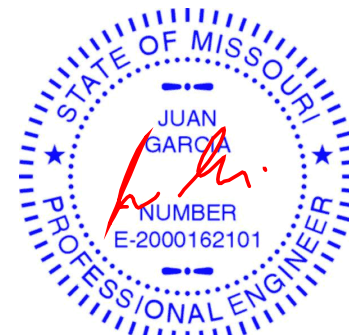
TOP CHORD 2-3=-1987/474, 3-4=-1762/459, 4-5=-1988/474
BOT CHORD 2-8=-410/1792, 7-8=-404/1761, 5-7=-374/1793
WEBS 3-8=-78/454, 4-7=-76/450

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=242, 5=242.
- This truss 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.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 333 lb down and 106 lb up at 5-0-0, and 333 lb down and 106 lb up at 6-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 4-6=-70, 9-12=-20
Concentrated Loads (lb)
Vert: 4=-82(B) 8=-333(B) 7=-333(B) 3=-82(B)



December 14, 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

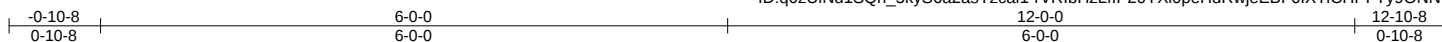
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230781
3021298	E02	Common	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:46 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-rVRibHzLfIP20YXi0peHdRwjeEBF6IXTICHPFTy9ONN



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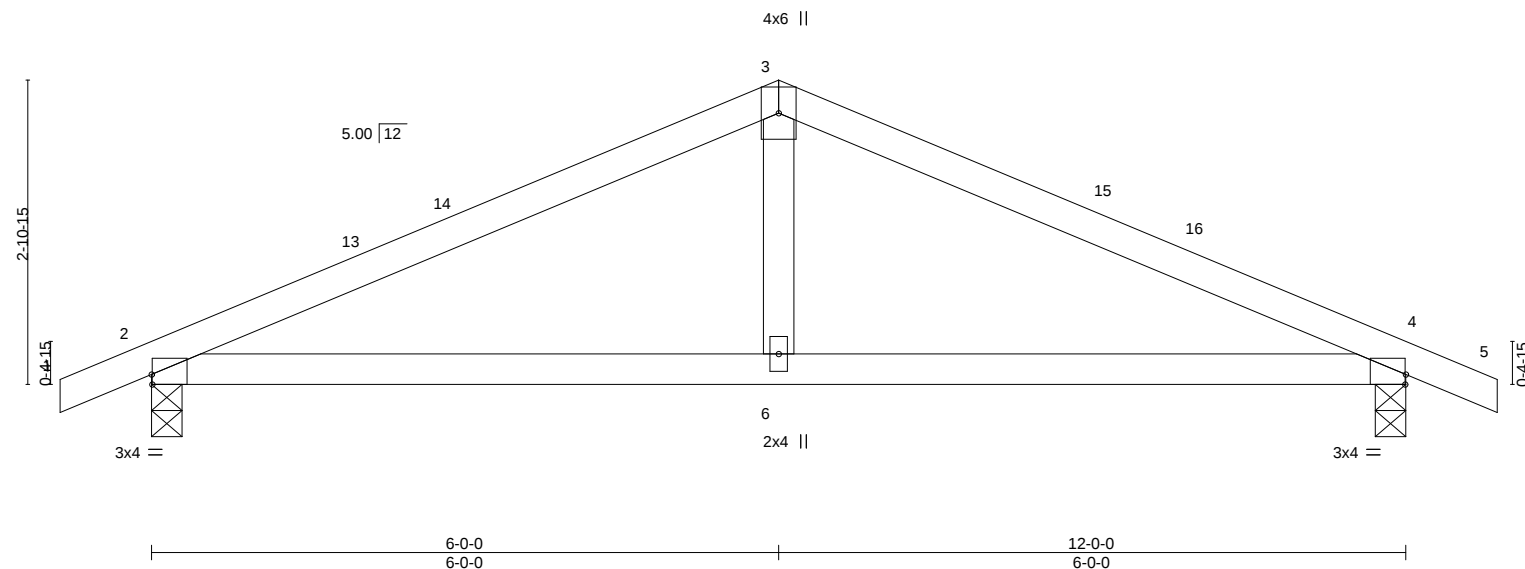


Plate Offsets (X,Y)--		[2:0-0-1,Edge], [4:0-0-1,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37
TCDL 10.0	Lumber DOL	1.15	BC 0.35
BCLL 0.0	Rep Stress Incr	YES	WB 0.06
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.05 6-12 >999 240
			Vert(CT) -0.08 6-12 >999 180
			Horz(CT) 0.01 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 34 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=-50(LC 13)
Max Uplift 2=-112(LC 12), 4=-112(LC 13)
Max Grav 2=601(LC 1), 4=601(LC 1)

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

TOP CHORD 2-3=-844/317, 3-4=-844/317
BOT CHORD 2-6=-188/717, 4-6=-188/717
WEBS 3-6=0/265

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=112, 4=112.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO	I49230782
3021298	F01	Jack-Open	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:47 2021 Page 1

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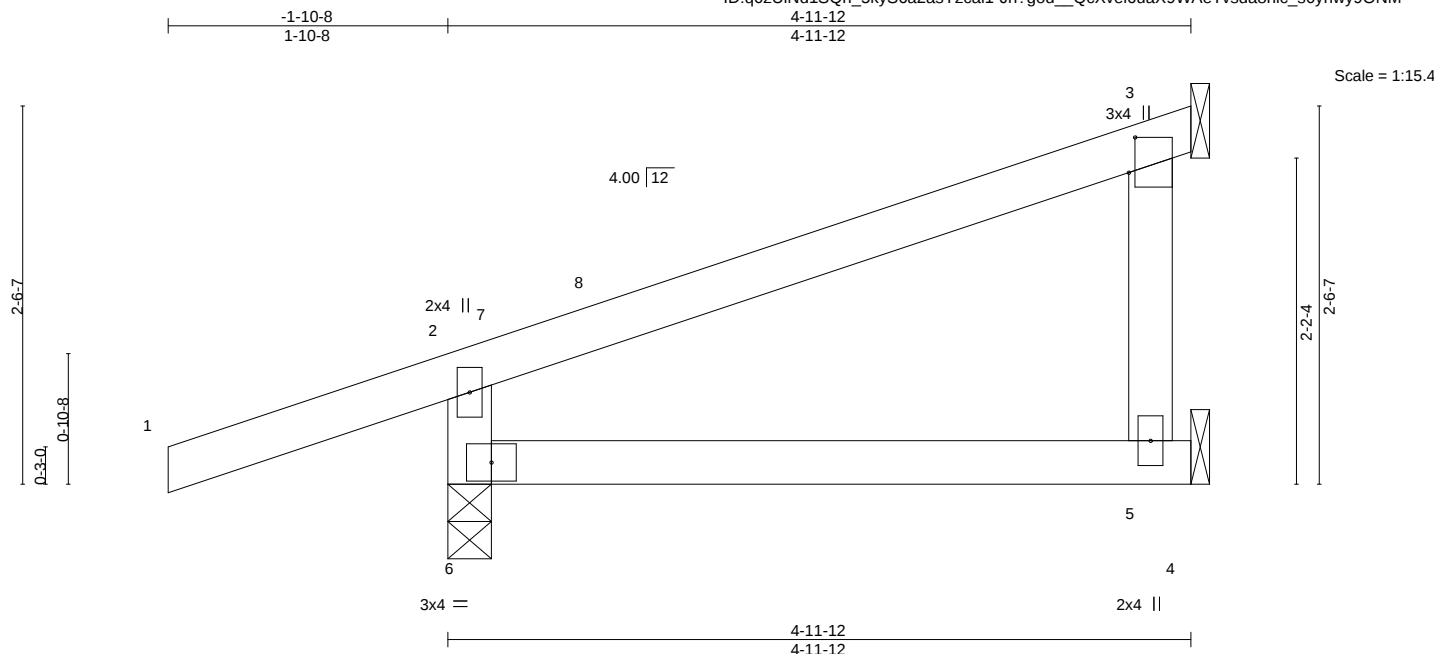


Plate Offsets (X,Y)--		[3:0-2-13,0-0-8]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	-0.02	5-6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.04	5-6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.02	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 17 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

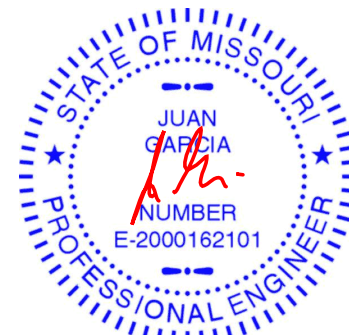
(size) 5=Mechanical, 3=Mechanical, 6=0-3-8
Max Horz 6=88(LC 8)
Max Uplift 3=-65(LC 12), 6=-131(LC 8)
Max Grav 5=94(LC 3), 3=130(LC 1), 6=378(LC 1)

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

TOP CHORD 2-6=-331/254

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 4-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 6=131.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



December 14, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

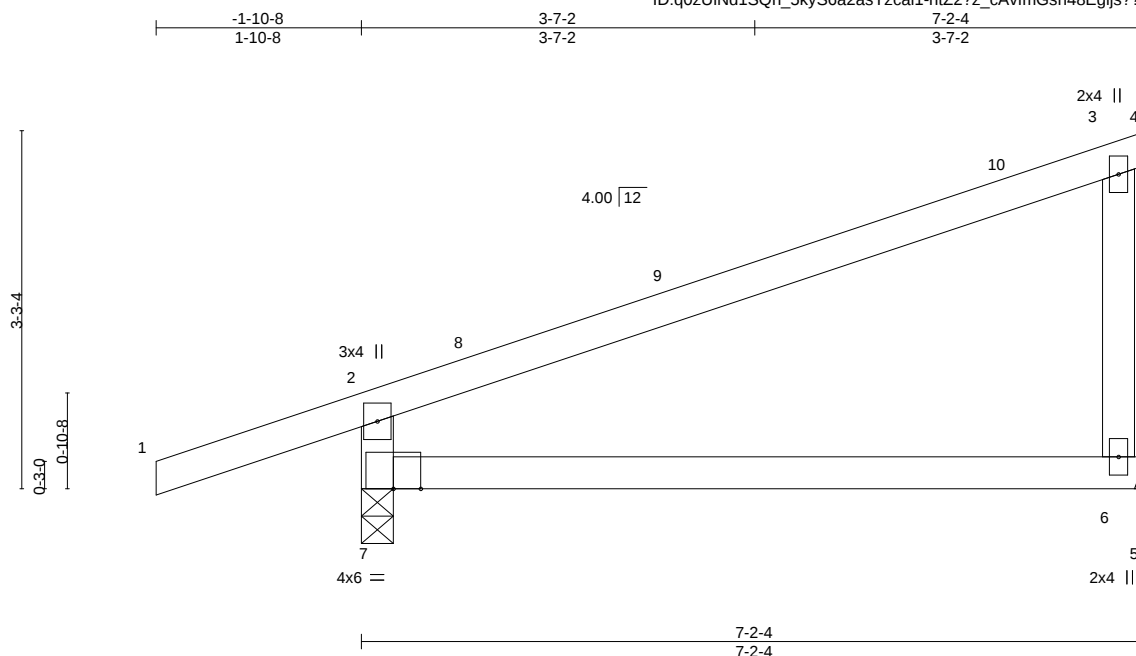
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230783
3021298	F02	Jack-Partial	11	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:48 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-ntZ2?z_cAvfmGsh48Egljs??O1sVaCJICWmWJMy9ONL



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.10 6-7	>853	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.21 6-7	>394	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 23 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 6=Mechanical, 7=0-3-8
Max Horz 7=121(LC 8)
Max Uplift 6=-87(LC 8), 7=-141(LC 8)
Max Grav 6=295(LC 1), 7=467(LC 1)

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

TOP CHORD 2-7=-405/281

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 7-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=6) 7=141.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

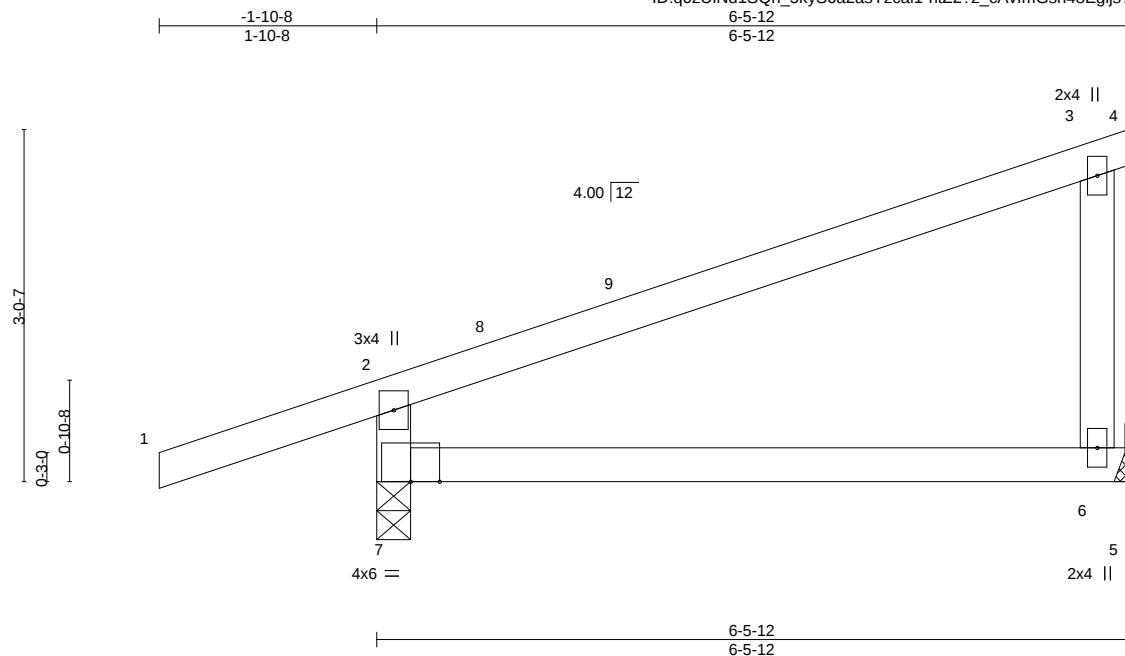
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230784
3021298	F03	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:48 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-ntZ2?z_cAvfmGsh48Egljs?1U1txaCLICWmWJMy9ONL



Scale = 1:19.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	-0.06	6-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.34	Vert(CT)	-0.13	6-7	>550	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 21 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 6=Mechanical, 7=0-3-8
Max Horz 7=112(LC 8)
Max Uplift 6=-79(LC 12), 7=-137(LC 8)
Max Grav 6=260(LC 1), 7=438(LC 1)

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

TOP CHORD 2-7=-381/273

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=6) 7=137.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

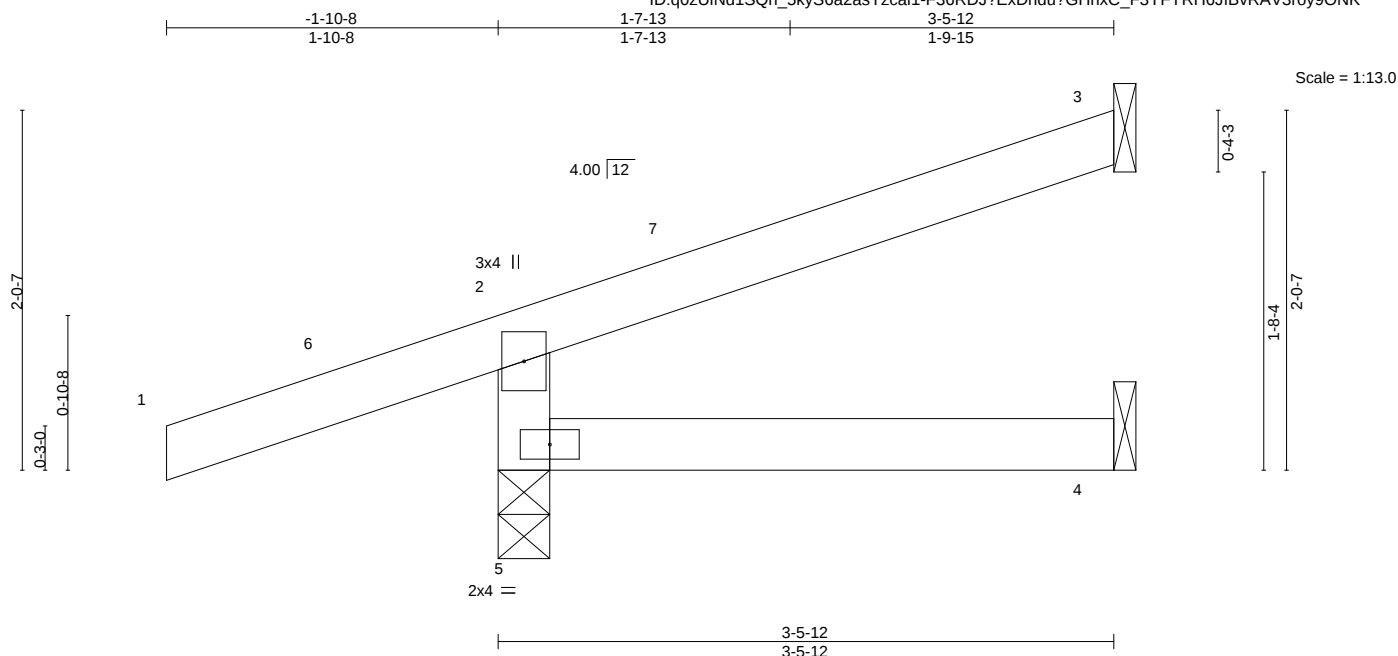
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230785
3021298	F04	Jack-Open	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:49 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-F36RDJ?ExDndu?GHhxC_F3YFYRH6JfBvRav3roy9ONK



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-5-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=71(LC 8)
Max Uplift 3=-44(LC 12), 5=-127(LC 8)
Max Grav 3=80(LC 1), 4=57(LC 3), 5=332(LC 1)

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

TOP CHORD 2-5=-290/235

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=6) 5=127.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	F05	Half Hip Girder	1	1	I49230786
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:50 2021 Page 1

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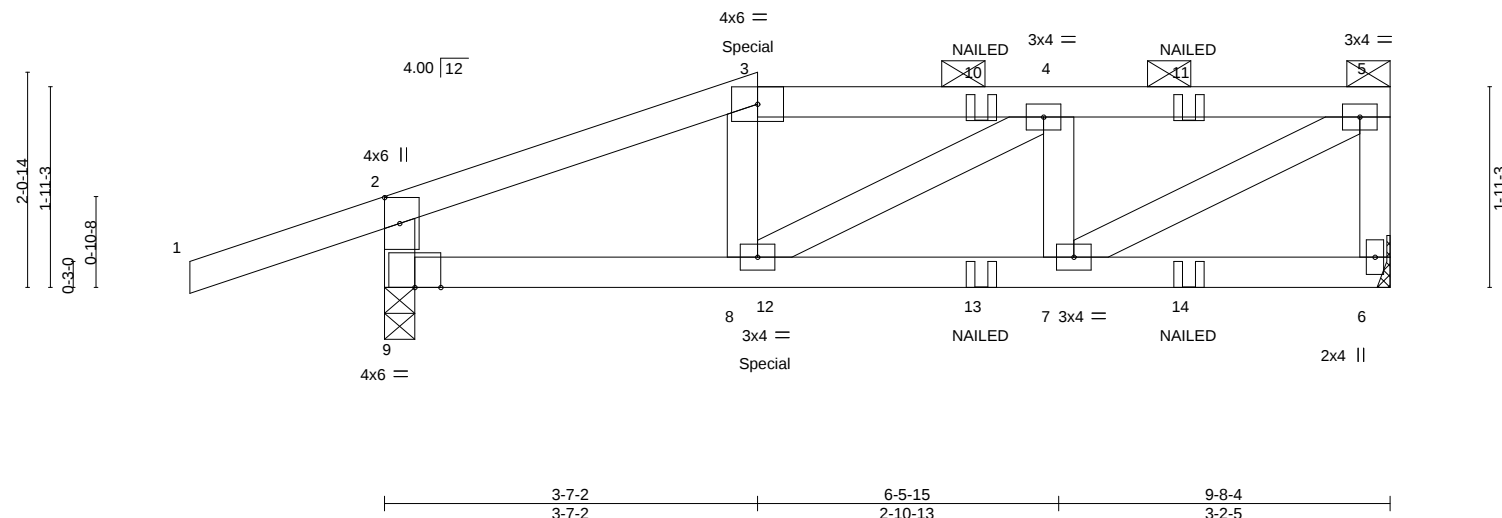


Plate Offsets (X,Y)--		[2:0-3-0,0-1-12]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.57		Vert(LL) -0.04 7-8 >999 240		MT20 197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.44		Vert(CT) -0.07 7-8 >999 180			
BCLL	0.0	Rep Stress Incr NO		WB 0.16		Horz(CT) 0.01 6 n/a n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 37 lb FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 9=0-3-8
Max Horz 9=83(LC 5)
Max Uplift 6=-121(LC 5), 9=-206(LC 4)
Max Grav 6=424(LC 1), 9=591(LC 1)

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

TOP CHORD 2-3=-537/130, 3-4=-451/135, 4-5=-581/180, 5-6=-396/131, 2-9=-494/201
BOT CHORD 8-9=-155/452, 7-8=-185/581
WEBS 5-7=-187/635

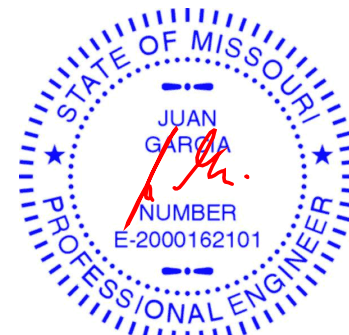
NOTES-

- 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=121, 9=206.
- This truss 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.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 57 lb down and 106 lb up at 3-7-2 on top chord, and 46 lb down at 3-7-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-5=-70, 6-9=-20

Continued on page 2



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO	I49230786
3021298	F05	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:50 2021 Page 2
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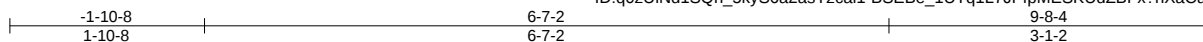
LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-3(B) 8=-1(B) 10=-3(B) 11=-3(B) 12=-6(B) 13=-6(B) 14=-6(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	149230787
3021298	F06	Half Hip	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:51 2021 Page 1

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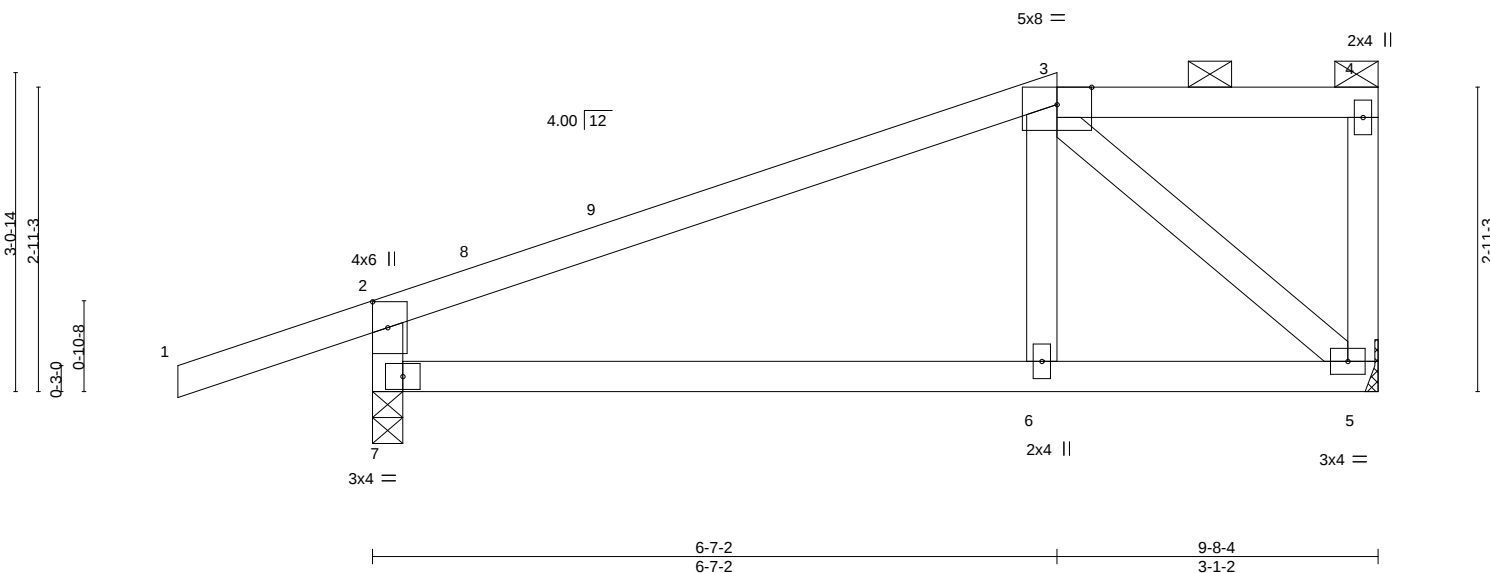


Plate Offsets (X,Y)-- [2:0-3-0,0-1-12]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.04	6-7	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	-0.07	6-7	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	5	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 35 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

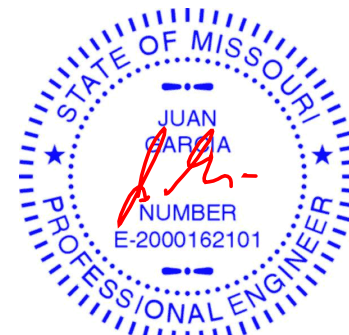
(size) 5=Mechanical, 7=0-3-8
Max Horz 7=128(LC 9)
Max Uplift 5=94(LC 8), 7=184(LC 8)
Max Grav 5=408(LC 1), 7=579(LC 1)

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

TOP CHORD 2-3=-457/155, 2-7=-512/310
BOT CHORD 6-7=-265/360, 5-6=-267/355
WEBS 3-5=-473/322

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-7-2, Exterior(2E) 6-7-2 to 9-6-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=184.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230788
3021298	F07	MONO TRUSS	8	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

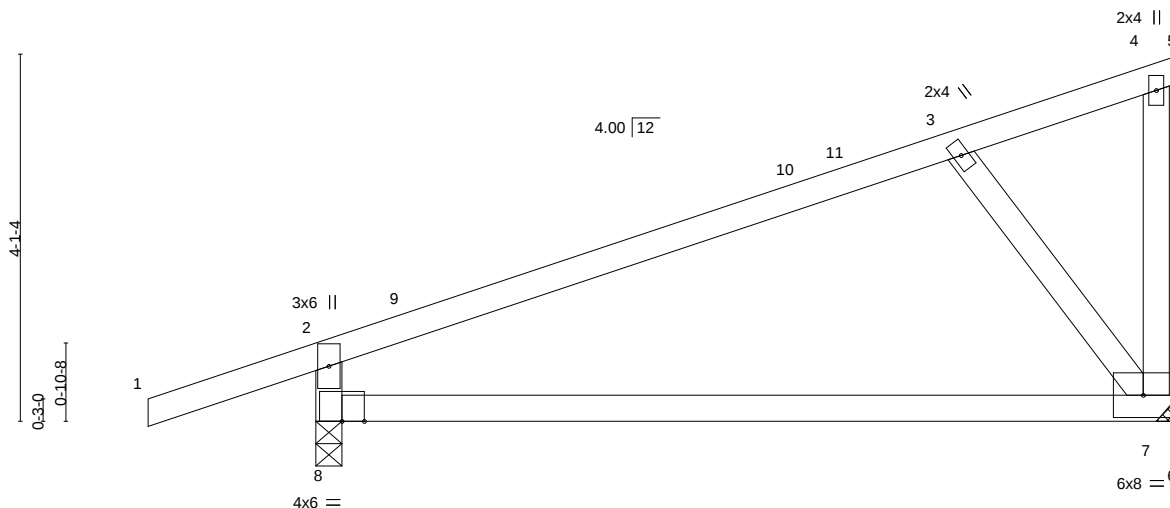
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:52 2021 Page 1

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Scale = 1:25.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.19	7-8	>590	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.38	7-8	>294	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 33 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

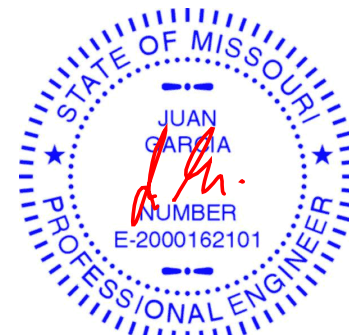
(size) 7=Mechanical, 8=0-3-8
Max Horz 8=155(LC 8)
Max Uplift 7=-121(LC 8), 8=-158(LC 8)
Max Grav 7=413(LC 1), 8=573(LC 1)

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

TOP CHORD 2-3=-384/85, 2-8=-484/286
BOT CHORD 7-8=-197/291
WEBS 3-7=-423/349

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 9-8-4 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=121, 8=158.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 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

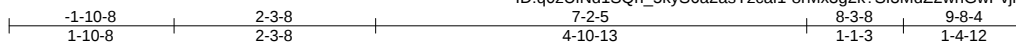
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	F08	Jack-Closed	1	1	I49230789

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:53 2021 Page 1

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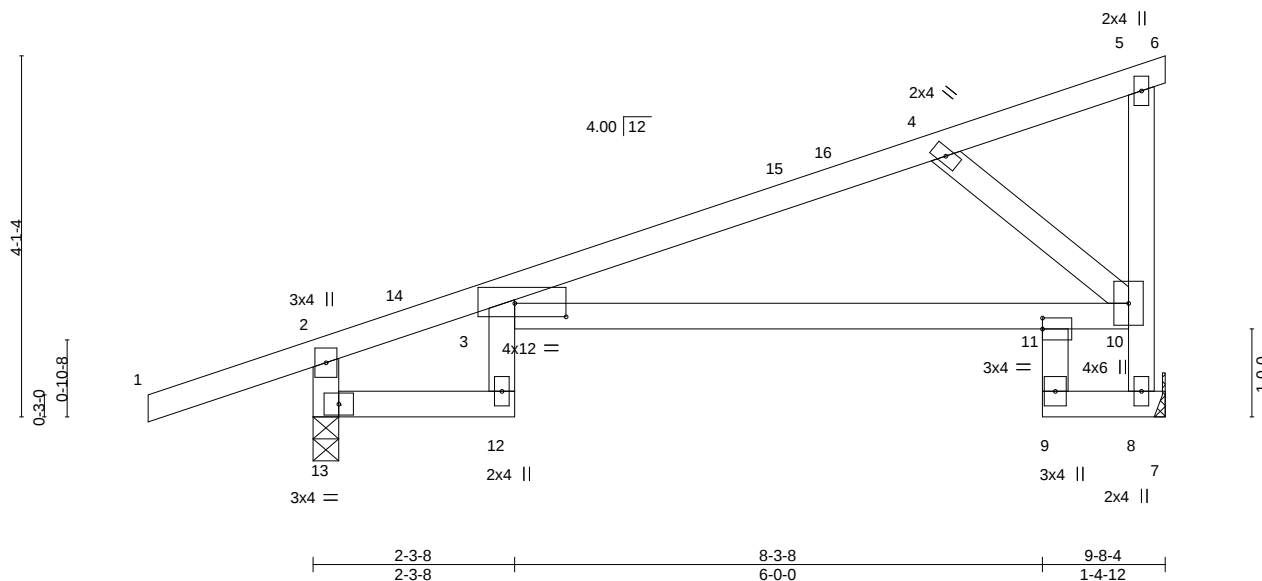


Plate Offsets (X,Y)-- [3:0-7-0,0-1-13], [11:0-0-0,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	0.22	3-11	>514	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.42	3-11	>263	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.33	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 36 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 9-11: 2x4 SPF 1650F 1.5E
 WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS.

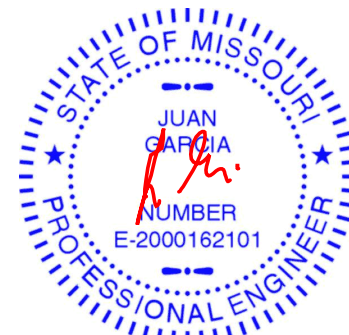
(size) 8=Mechanical, 13=0-3-8
 Max Horz 13=155(LC 8)
 Max Uplift 8=121(LC 8), 13=157(LC 8)
 Max Grav 8=413(LC 1), 13=575(LC 1)

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

TOP CHORD 2-13=-588/289, 3-4=-509/189
 BOT CHORD 3-11=-298/476, 10-11=-322/638
 WEBS 8-10=-330/251, 4-10=-537/374

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 9-8-4 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=121, 13=157.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230790
3021298	F09	Half Hip	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:54 2021 Page 1

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-1-10-8	2-3-8	6-7-2	8-3-8	9-8-4
1-10-8	2-3-8	4-3-10	1-8-6	1-4-12

Scale = 1:22.7

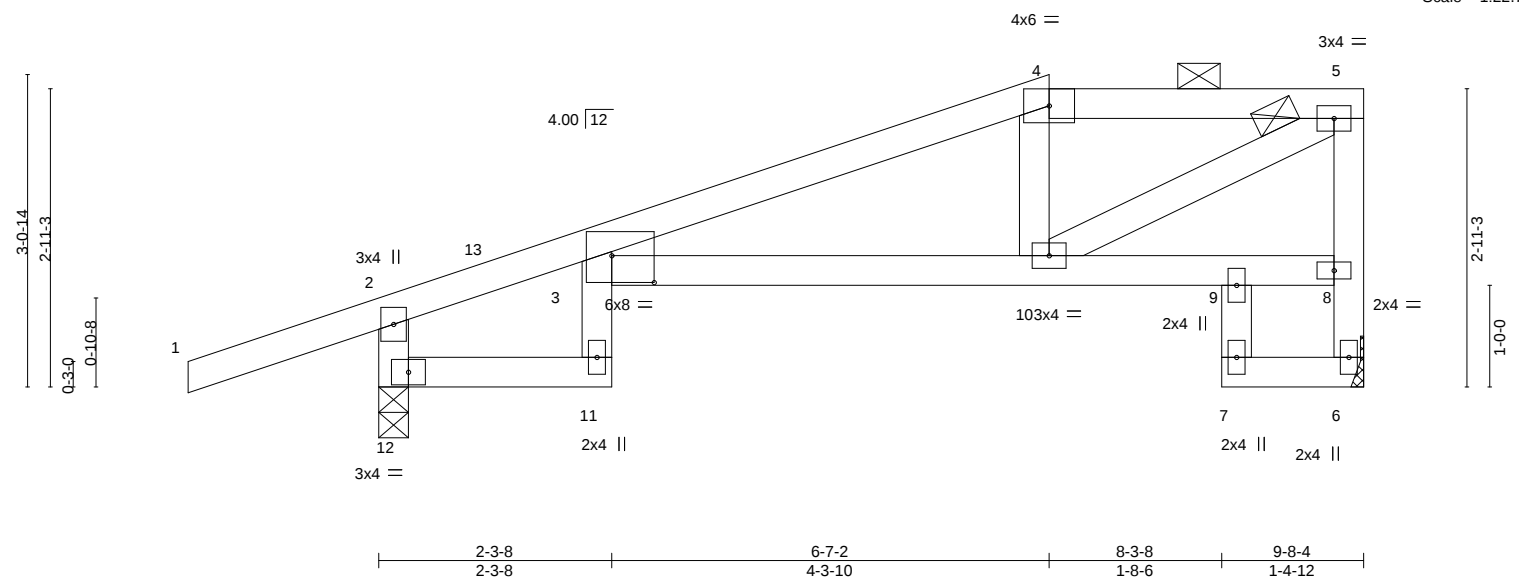


Plate Offsets (X,Y)--	[3:0-5-0,0-3-3]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	0.21 3-10	>548	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.31 3-10	>361	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.24 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 36 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 12=0-3-8
Max Horz 12=109(LC 8)
Max Uplift 6=-102(LC 8), 12=-175(LC 8)
Max Grav 6=408(LC 1), 12=581(LC 1)

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

TOP CHORD 3-4=-678/322, 4-5=-647/376, 6-8=-397/201, 5-8=-418/230, 2-12=-594/302
BOT CHORD 3-10=-358/630
WEBS 5-10=-440/733

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 6-7-2, Exterior(2E) 6-7-2 to 9-6-8 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=102, 12=175.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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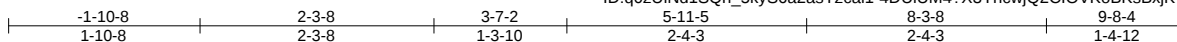
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230791
3021298	F10	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:55 2021 Page 1

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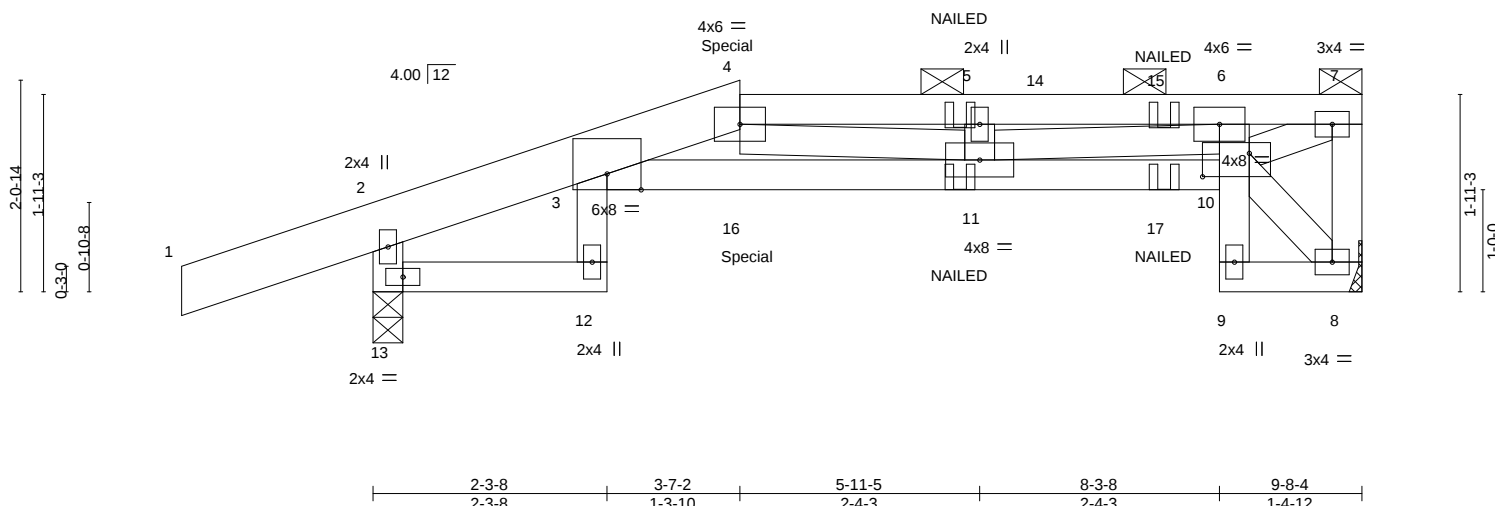


Plate Offsets (X,Y)--		[10:0-5-8,0-2-12]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.62		Vert(LL) 0.11 3-11		>999 240		MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.70		Vert(CT) -0.16 3-11		>685 180					
BCLL	0.0	Rep Stress Incr NO		WB 0.20		Horz(CT) 0.14 8		n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 41 lb		FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 13=0-3-8
Max Horz 13=84(LC 7)
Max Uplift 8=-173(LC 5), 13=-256(LC 4)
Max Grav 8=477(LC 1), 13=636(LC 1)

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

TOP CHORD 3-4=-1705/676, 4-5=-1641/651, 5-6=-1641/651, 6-7=-756/299, 7-8=-410/167,
2-13=-629/270
BOT CHORD 3-11=-731/1740, 10-11=-440/1045, 6-10=-258/107
WEBS 7-10=-338/816, 6-11=-267/621

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=173, 13=256.
- This truss 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.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 111 lb down and 60 lb up at 3-7-2 on top chord, and 58 lb down and 79 lb up at 3-7-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



December 14, 2021

Continued on page 2

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

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230791
3021298	F10	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:55 2021 Page 2
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-4DUiUM4?X3YncwjQ2CIOVKoBKsBxjKYnp6yN3Sy9ONE

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-7=-70, 12-13=-20, 3-10=-20, 8-9=-20

Concentrated Loads (lb)

Vert: 11=-34(F) 16=-58(F) 17=-34(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230792
3021298	G01	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

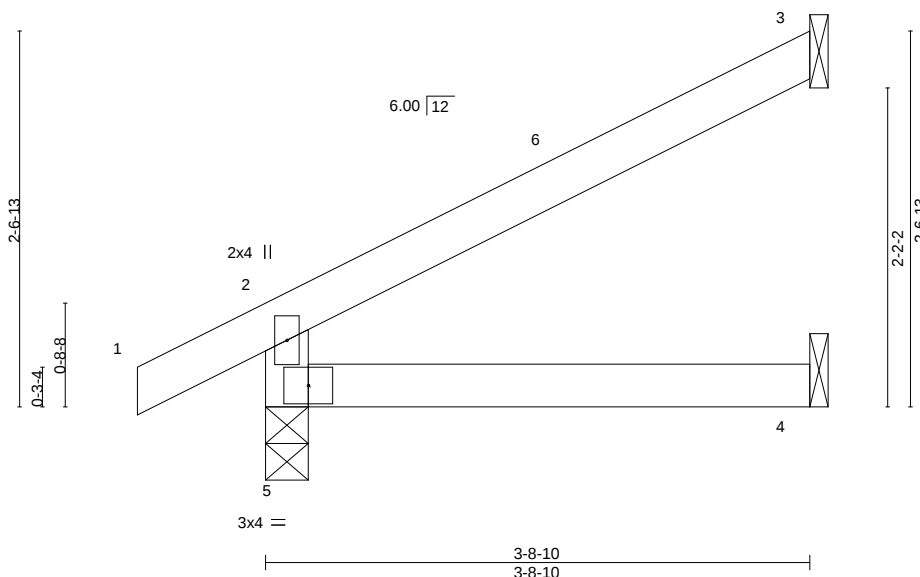
8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:56 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-YQ24hi5dNgeD4ldcwqd1XLT9Gf4Sqwx2mixbuy9OND

-0-10-8
0-10-8

3-8-10
3-8-10

Scale = 1:15.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.02	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 11 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-10 oc purlins, except end verticals.

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8

Max Horz 5=83(LC 12)

Max Uplift 3=-62(LC 12), 5=-34(LC 12)

Max Grav 3=107(LC 1), 4=66(LC 3), 5=240(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-7-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14,2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

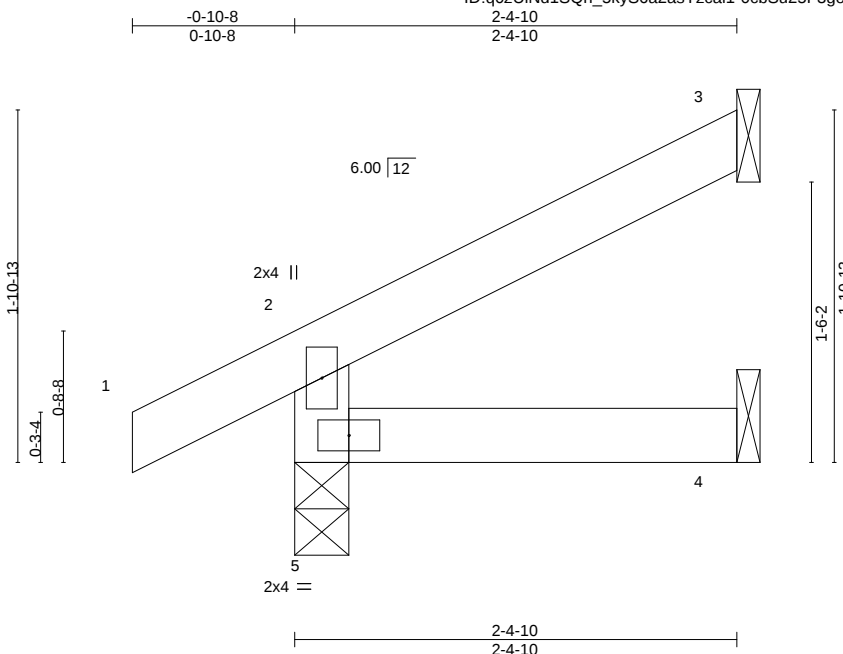
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	G02	Jack-Open	1	1	I49230793
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:57 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-0cbSu25F3goUrEtp9dLsaltfTf1WBHA4HQRU7Ky9ONC



Scale = 1:12.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

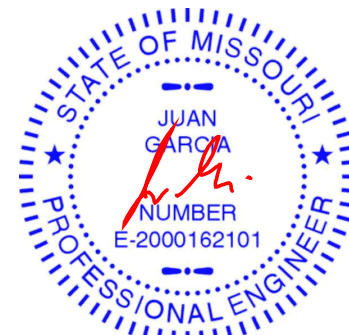
REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=56(LC 12)
Max Uplift 3=-39(LC 12), 5=-29(LC 12)
Max Grav 3=60(LC 1), 4=40(LC 3), 5=186(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

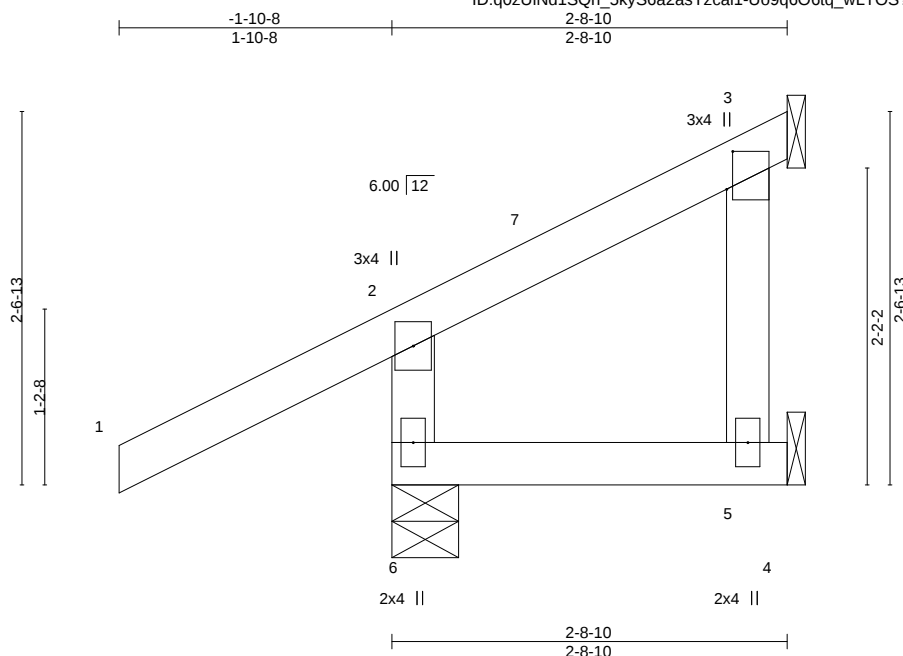
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	G03	Jack-Open	1	1	149230794
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:58 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-Uo9q6O6tq_wLTOS?jKs56yQns3MGwkQEV4B2gny9ONB



Scale = 1:15.8

Plate Offsets (X,Y)--		[3:0-3-2,0-0-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	0.00	5-6	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.00	5-6	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
								Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

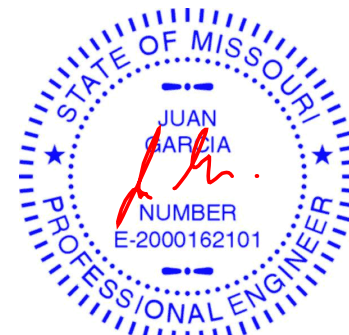
(size) 6=0-5-8, 5=Mechanical, 3=Mechanical
Max Horz 6=69(LC 9)
Max Uplift 6=-54(LC 12), 3=-37(LC 12)
Max Grav 6=307(LC 1), 5=50(LC 3), 3=34(LC 1)

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

TOP CHORD 2-6=-268/217

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 2-5-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



December 14, 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 3021298	Truss G04	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #139/MO I49230795
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

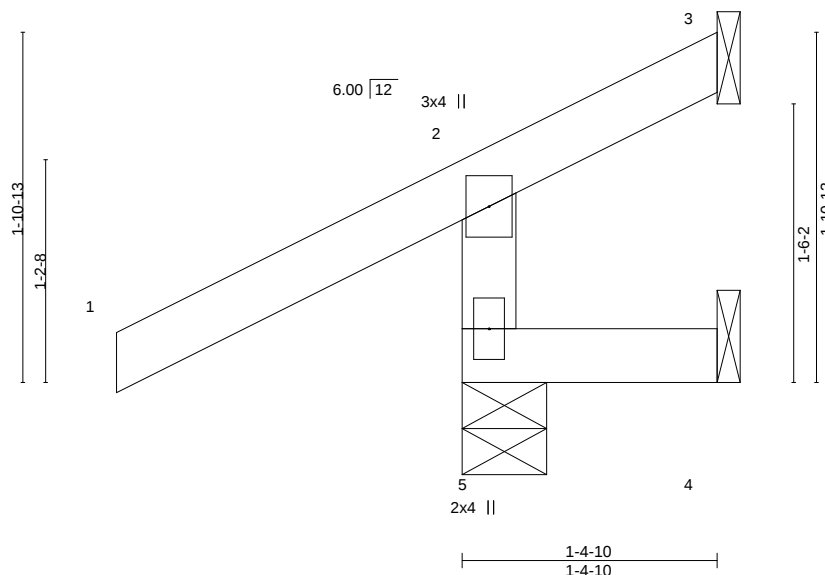
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:58 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-Uo9q6O6tq_wLTOS?jKs56yQns3NawkQEV4B2gny9ONB



Scale = 1:12.5



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

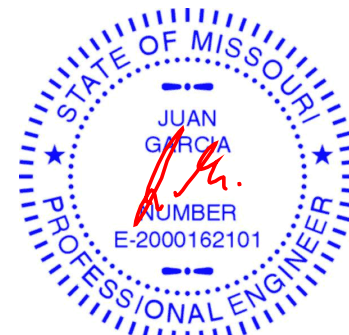
(size) 5=0-5-8, 3=Mechanical, 4=Mechanical
Max Horz 5=56(LC 9)
Max Uplift 5=-63(LC 12), 3=-46(LC 1), 4=-16(LC 1)
Max Grav 5=313(LC 1), 3=13(LC 8), 4=15(LC 3)

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

TOP CHORD 2-5=-273/237

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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	SUMMIT/HAWTHORN RIDGE #139/MO	I49230796
3021298	G05	Jack-Open	3	1		

Builders FirstSource (Valley Center),

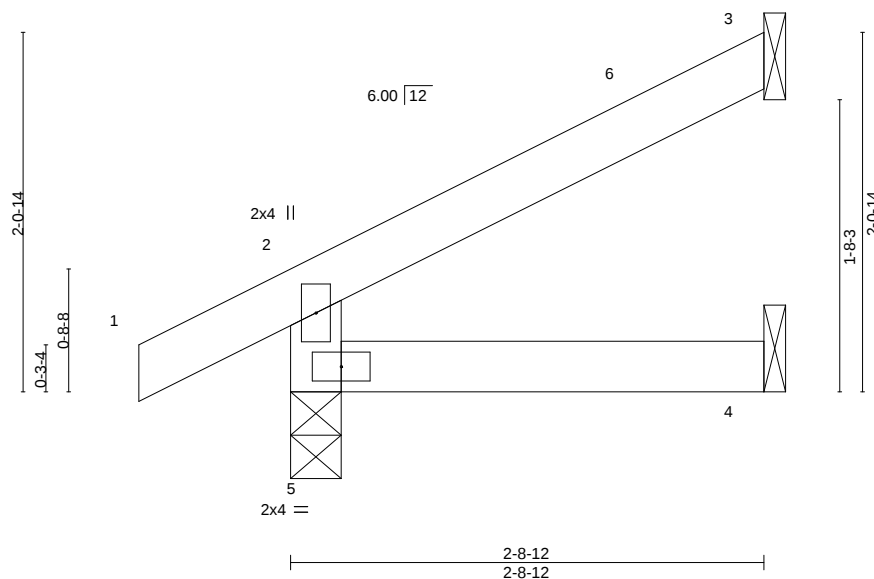
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:38:59 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-y?jCJj7Vbl2C4Y1CH2NKfAz?rThkfBgNkkwbCDy9ONA



Scale = 1:13.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=63(LC 12)
Max Uplift 3=-45(LC 12), 5=-30(LC 12)
Max Grav 3=73(LC 1), 4=47(LC 3), 5=199(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	G06	Jack-Open	3	1	I49230797
Job Reference (optional)					

Builders FirstSource (Valley Center),

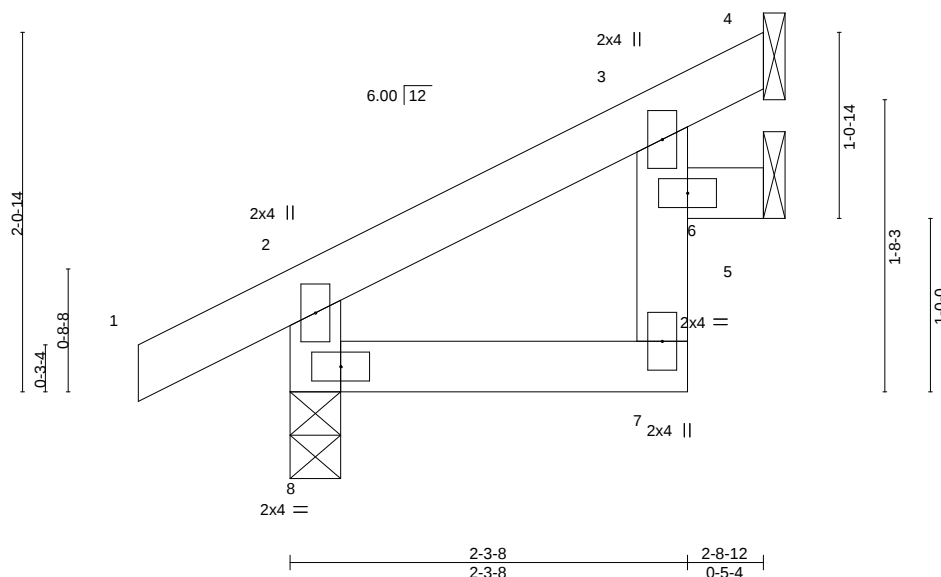
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:00 2021 Page 1

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Scale = 1:13.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 10 lb	FT = 20%

LUMBER-

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

BRACING-

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

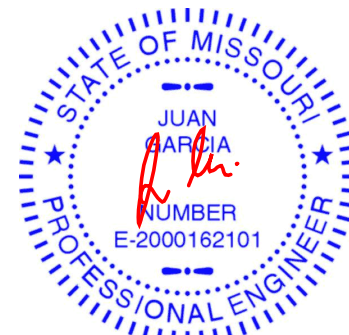
REACTIONS.

(size) 4=Mechanical, 5=Mechanical, 8=0-3-8
Max Horz 8=63(LC 12)
Max Uplift 4=15(LC 12), 5=30(LC 12), 8=30(LC 12)
Max Grav 4=45(LC 1), 5=54(LC 1), 8=199(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-15, Interior(1) 2-0-15 to 2-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 5, 8.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

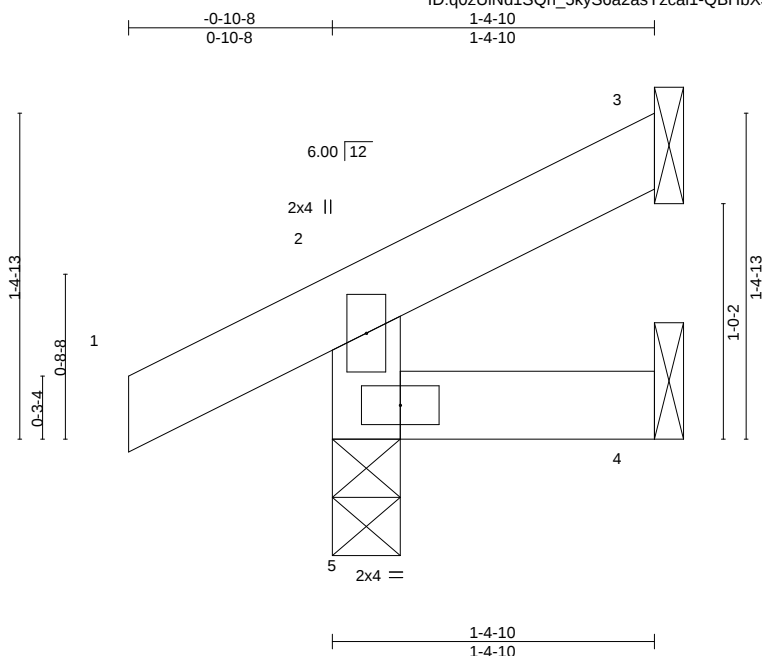
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	G07	Jack-Open	1	1	I49230798
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:00 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-QBHbX387MbA3iibOrluZCNVAit2jOewWzOg8kfy9ON9



Scale = 1:9.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 5 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-4-10 oc purlins, except end verticals.

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8

Max Horz 5=36(LC 12)

Max Uplift 3=-20(LC 12), 4=-1(LC 9), 5=-28(LC 12)

Max Grav 3=21(LC 1), 4=21(LC 3), 5=156(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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Chesterfield, MO 63017

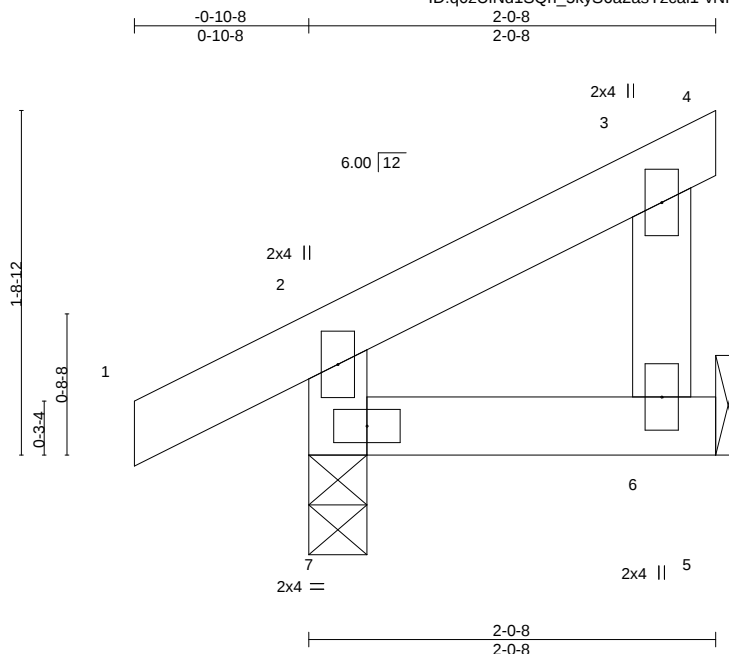
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230799
3021298	G08	Jack-Closed	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:01 2021 Page 1

ID:q0ZUiNd1SQn_5kyS6a2asYzcai1-vNrzkP8m7vIwKrAaOTPokb2LSHOr759gC2PiH6y9ON8



Scale = 1:11.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	7	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	7	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

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

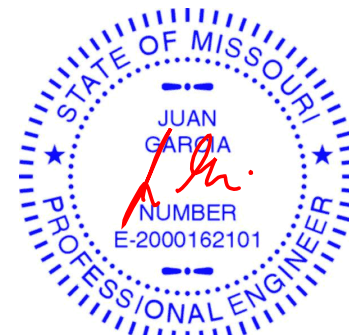
REACTIONS.

(size) 6=Mechanical, 7=0-3-8
Max Horz 7=64(LC 11)
Max Uplift 6=27(LC 12), 7=34(LC 12)
Max Grav 6=62(LC 1), 7=166(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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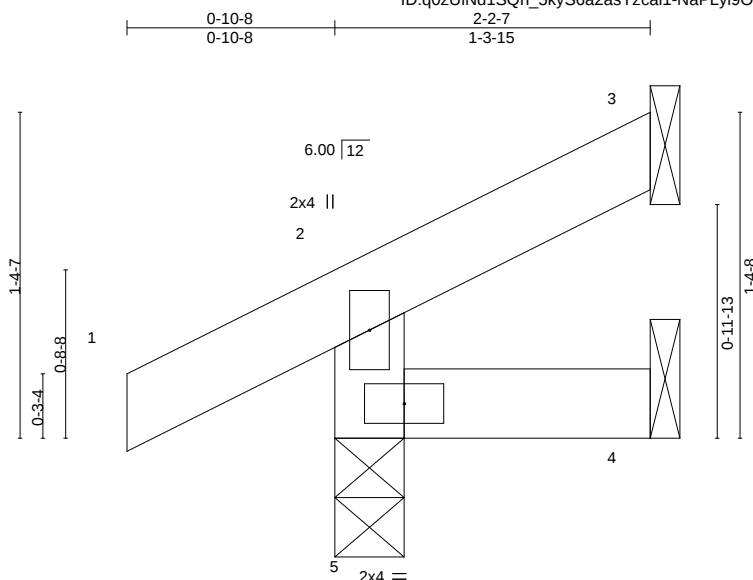
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	G09	Jack-Open	2	1	I49230800
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:02 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-NaPLyI9OtDQnx?lmyAx1HoaWCgkCrYPpQi9FpYy9ON7



Scale = 1:9.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	5	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 5 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-7 oc purlins, except end verticals.

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

REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8

Max Horz 5=35(LC 12)

Max Uplift 3=-19(LC 12), 4=-1(LC 9), 5=-28(LC 12)

Max Grav 3=18(LC 1), 4=20(LC 3), 5=155(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

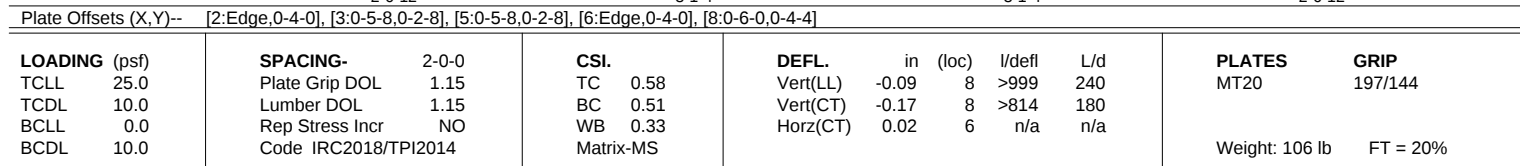
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:04 2021 Page 1
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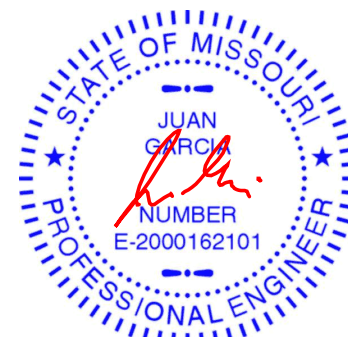
 1-10-8 2-6-12 3-1-4 11-4-0
 1-10-8 2-6-12 3-1-4 2-6-12
 Scale = 1:21.8



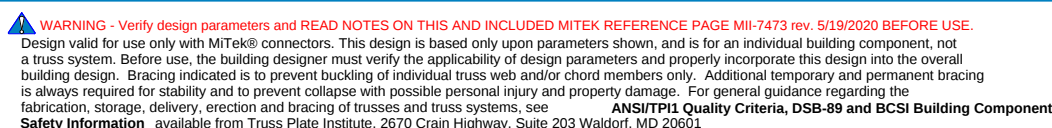
REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=46(LC 25)
Max Uplift 2=-1046(LC 4), 6=-754(LC 5)
Max Grav 2=5252(LC 1), 6=4298(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6966/1337, 3-4=-9017/1711, 4-5=-9017/1711, 5-6=-7081/1301
BOT CHORD 2-9=-1194/6369, 8-9=-1224/6531, 7-8=-1194/6673, 6-7=-1169/6508
WEBS 3-9=-290/1525, 3-8=-489/2724, 5-8=-536/2598, 5-7=-232/1538

- NOTES-**
- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - 3) Unbalanced roof live loads have been considered for this design.
 - 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 5) Provide adequate drainage to prevent water ponding.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=1046, 6=754.
 - 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 10) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-1-0 oc max. starting at 0-0-0 from the left end to 10-1-0 to connect truss(es) to front face of bottom chord.
 - 11) Use Simpson Strong-Tie TJC37 (4 nail 90-150) or equivalent at 2-6-12 from the left end to connect truss(es) to back face of bottom chord, skewed 56.3 deg.to the right, sloping 0.0 deg. down.
 - 12) Fill all nail holes where hanger is in contact with lumber.
- Detail Note indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.



December 14.2021



Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230801
3021298	H01	Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:04 2021 Page 2
ID:q0zUiNd1SQn_5kyS6a2asYzcai1-JyW5MRBePqgVBJv94bzVMDgkmUJ?JMh6u?eMtRy9ON5

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-3=-70, 3-5=-70, 5-6=-70, 10-13=-20
 - Concentrated Loads (lb)
 - Vert: 9=7(B) 8=-42(B) 7=7(B) 10=-1360(F) 15=-1387(F) 16=-1381(F) 17=-42(B) 18=-1381(F) 19=-1391(F) 20=-42(B) 21=-1387(F)

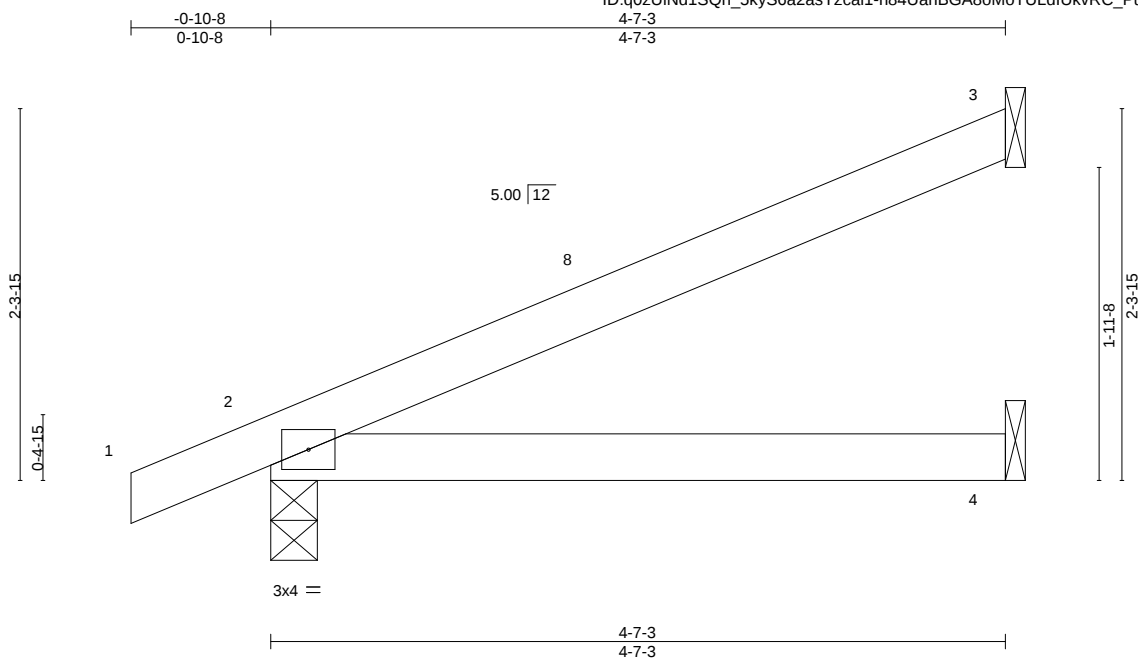
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:05 2021 Page 1
ID:q0ZjJiNd1SQn_5kvS6a2asYzcai1-n84JJanBGA8oMoTIll_dJlJkvRC_Pui62jU9E6fNvOtv9ON4



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.27	Vert(LL) 0.03 4-7 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) -0.04 4-7 >999 180		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 2 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=90(LC 12)
 Max Uplift 3=-65(LC 12), 2=-51(LC 12)
 Max Grav 3=138(LC 1), 2=271(LC 1), 4=82(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

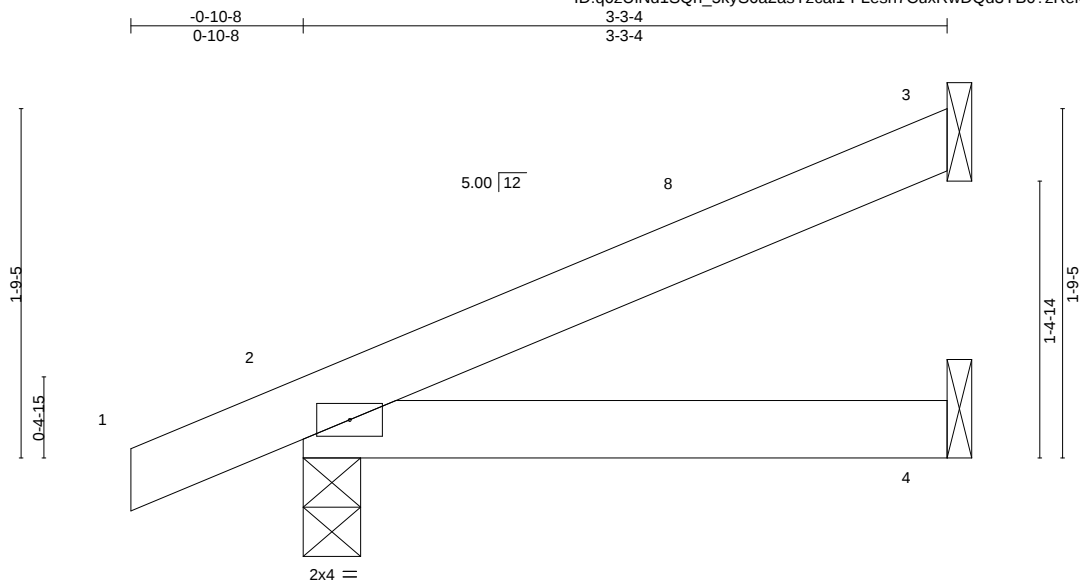
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	J02	Jack-Open	2	1	I49230803
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:06 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-FLesn7CuxRwDQd3YB0?zRelCNI4ynLPPLJ7TyJy9ON3



Scale = 1:11.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	-0.01	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 9 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=67(LC 12)
Max Uplift 3=-44(LC 12), 2=-43(LC 12)
Max Grav 3=93(LC 1), 2=214(LC 1), 4=58(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

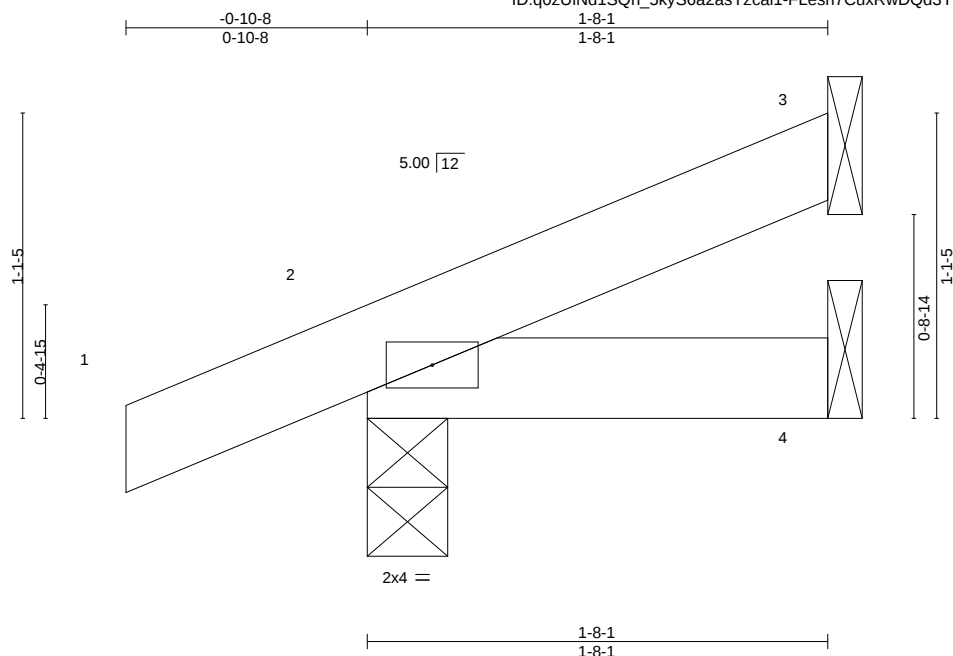
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230804
3021298	J03	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:06 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-FLesn7CuxRwDQd3YB0?zRelDVI56nLPPLJ77TyJy9ON3



Scale = 1:8.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 5 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=41(LC 12)
Max Uplift 3=-20(LC 12), 2=-37(LC 8)
Max Grav 3=41(LC 1), 2=152(LC 1), 4=28(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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 3021298	Truss J04	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #139/MO I49230805
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Builders FirstSource (Valley Center),

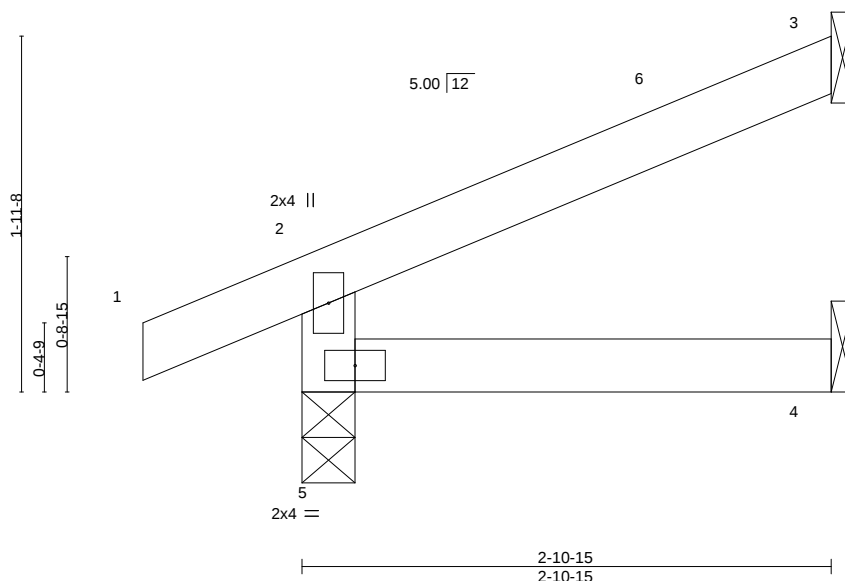
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:07 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-jXCE?TDWl242mekijWC_slNehQaWofYazs0Uly9ON2



Scale = 1:12.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

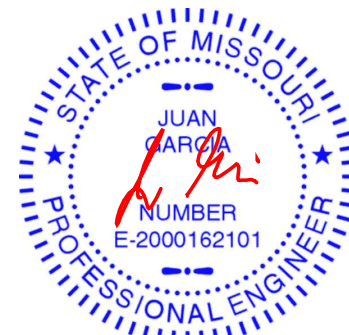
REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8
Max Horz 5=54(LC 12)
Max Uplift 3=44(LC 12), 5=36(LC 12)
Max Grav 3=80(LC 1), 4=50(LC 3), 5=207(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

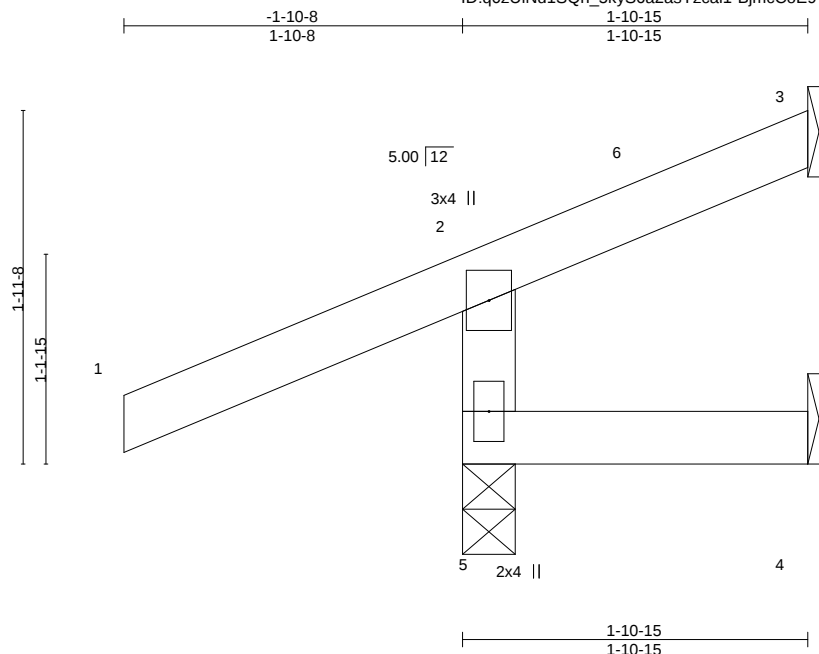
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	J06	Jack-Open	1	1	I49230807
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:08 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-BjmcCoE9T3AxfwDwJR1RW3qVN5mnFFuipdcZ0Cy9ON1



Scale = 1:12.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.00	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	0.00	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

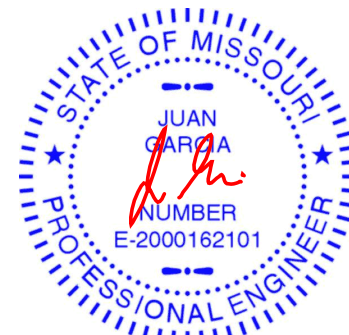
(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=57(LC 9)
Max Uplift 5=-84(LC 8), 3=-19(LC 12), 4=-4(LC 1)
Max Grav 5=302(LC 1), 3=3(LC 17), 4=27(LC 3)

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

TOP CHORD 2-5=-263/227

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 1-10-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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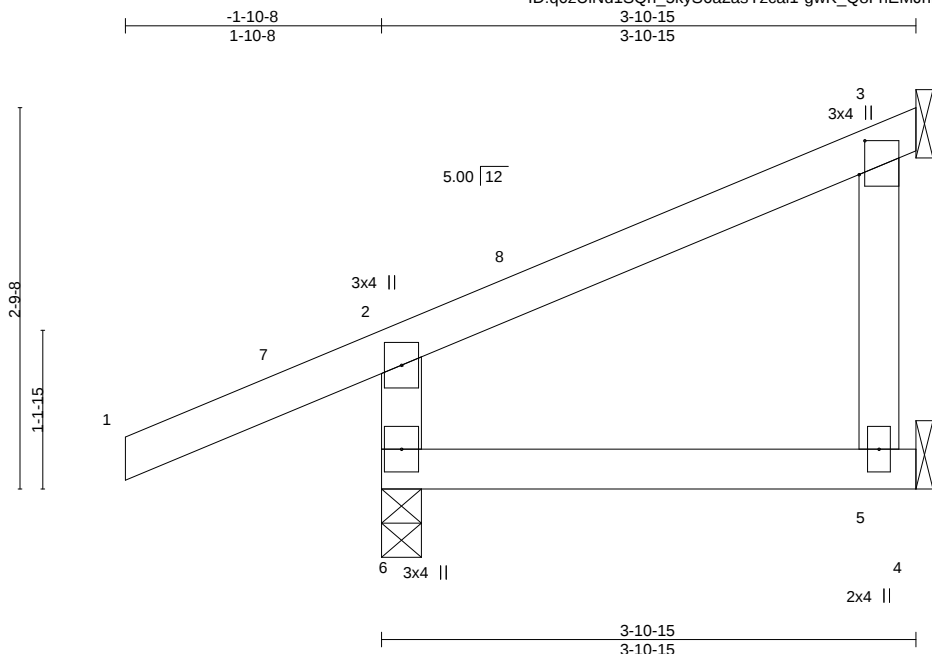
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	J07	Jack-Open	1	1	I49230808
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:09 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-gwK_Q8FnEMJnH4n7s8Zg3HNgtV5x_i8r1HL7Zey9ON0



Scale = 1:16.9

Plate Offsets (X,Y)--	[3:0-3-0,0-0-8]				
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(LL) -0.01 5-6 >999 240	GRIP
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Vert(CT) -0.01 5-6 >999 180	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP	Horz(CT) -0.02 3 n/a n/a	
					Weight: 15 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

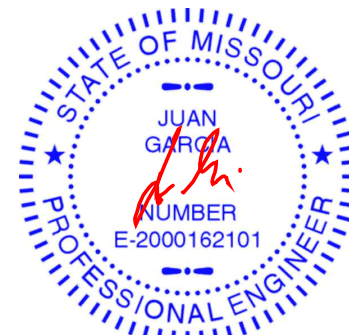
(size) 6=0-3-8, 5=Mechanical, 3=Mechanical
Max Horz 6=77(LC 9)
Max Uplift 6=-73(LC 8), 3=-56(LC 12)
Max Grav 6=339(LC 1), 5=74(LC 3), 3=88(LC 1)

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

TOP CHORD 2-6=-298/233

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 3-7-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



December 14, 2021

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

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	J08	Jack-Open	5	1	I49230809
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:10 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-86uNdUFP?gRevEMJQs4vcUwlZvNZj9h?Gx5g54y9ON?

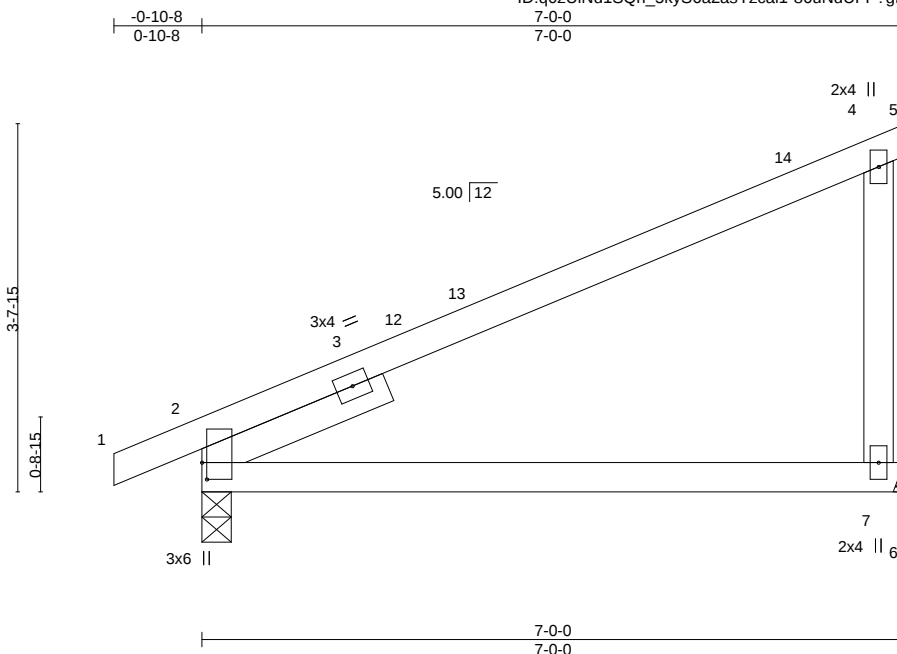


Plate Offsets (X,Y)--		[2:0-2-0,0-0-9]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL 1.15		TC	0.62	Vert(LL)	0.11	7-10	>752	240	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.43	Vert(CT)	-0.20	7-10	>396	180		
BCLL	0.0	Rep Stress Incr YES		WB	0.05	Horz(CT)	0.05	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 24 lb FT = 20%		

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 2-0-0

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS.

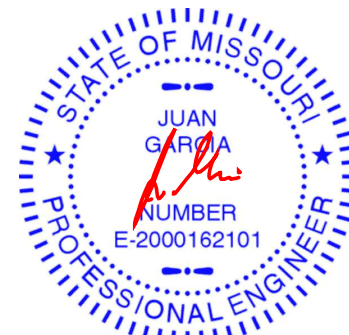
(size) 2=0-3-8, 7=Mechanical
 Max Horz 2=126(LC 12)
 Max Uplift 2=-58(LC 12), 7=-91(LC 12)
 Max Grav 2=368(LC 1), 7=310(LC 1)

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

TOP CHORD 2-4=-369/65

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 7-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

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

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 Chesterfield, MO 63017

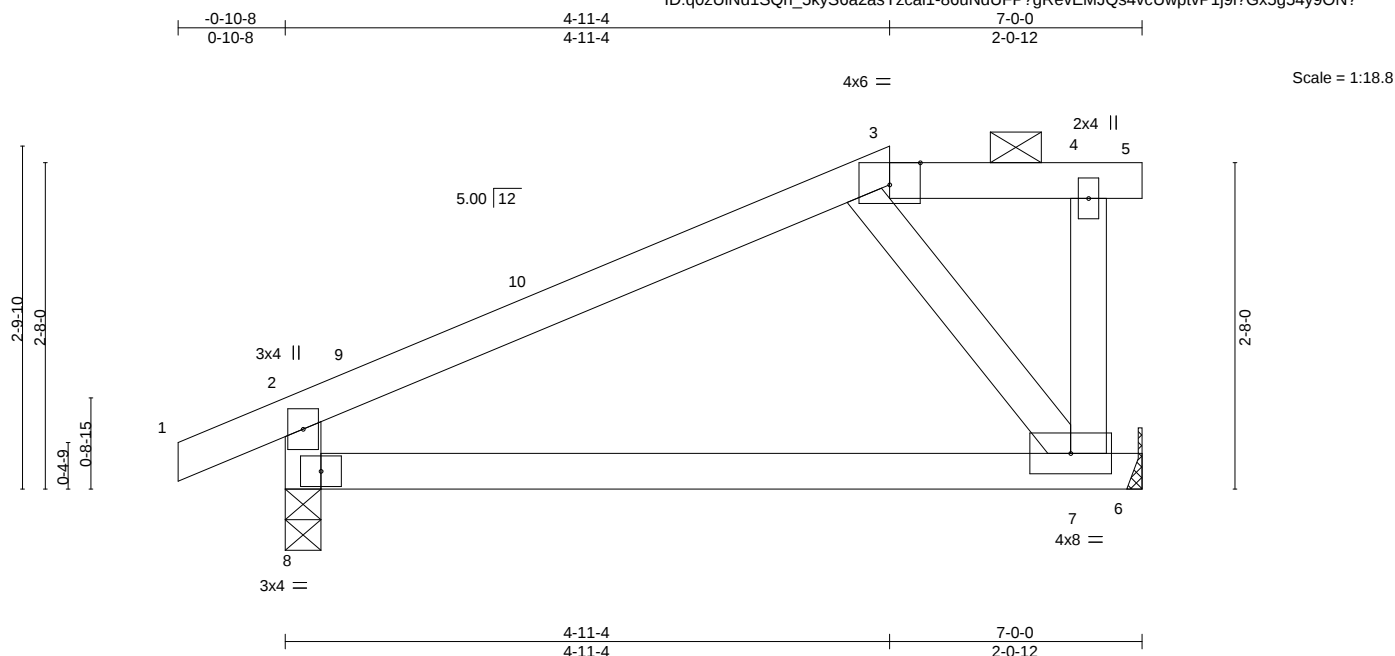


Plate Offsets (X,Y)--		[3:0-3:0,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.05 7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.11 7-8	>772	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00 6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 23 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 8=0-3-8
Max Horz 8=109(LC 9)
Max Uplift 6=-71(LC 9), 8=-81(LC 12)
Max Grav 6=305(LC 1), 8=382(LC 1)

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

TOP CHORD 2-3=-266/112, 2-8=-316/223
WEBS 3-7=-218/251

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-11-4, Exterior(2E) 4-11-4 to 7-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 8.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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

WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1473 (Rev. 3/29/2020) BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



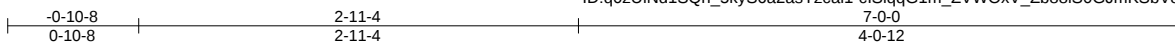
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230811
3021298	J10	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:11 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-clSlqqG1m_ZVWOxV_Zb88iS0GJmKSbV8VbqEdXy9ON_



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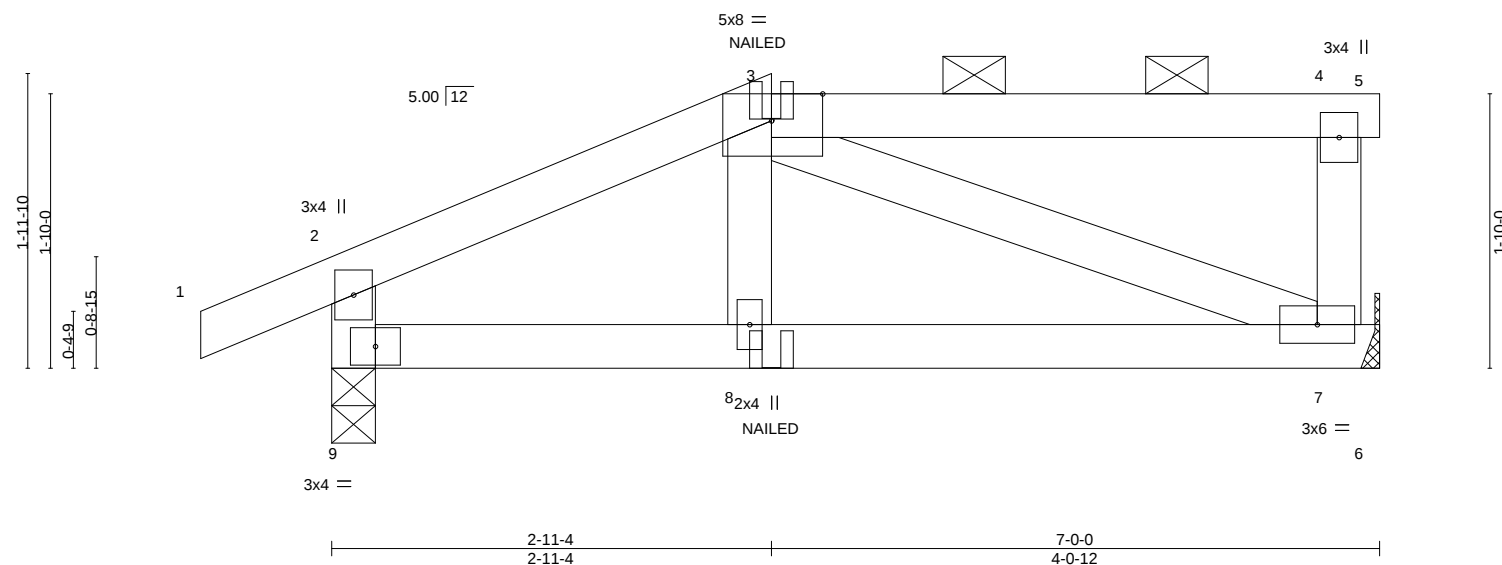


Plate Offsets (X,Y)--		[3:0-4-2,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01	8	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.02	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 25 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 9=0-3-8
Max Horz 9=73(LC 5)
Max Uplift 7=-74(LC 5), 9=-80(LC 4)
Max Grav 7=302(LC 1), 9=373(LC 1)

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

TOP CHORD 2-3=-358/67, 2-9=-318/83
BOT CHORD 8-9=-85/288, 7-8=-87/286

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-3=-70, 3-4=-70, 4-5=-20, 6-9=-20



December 14, 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

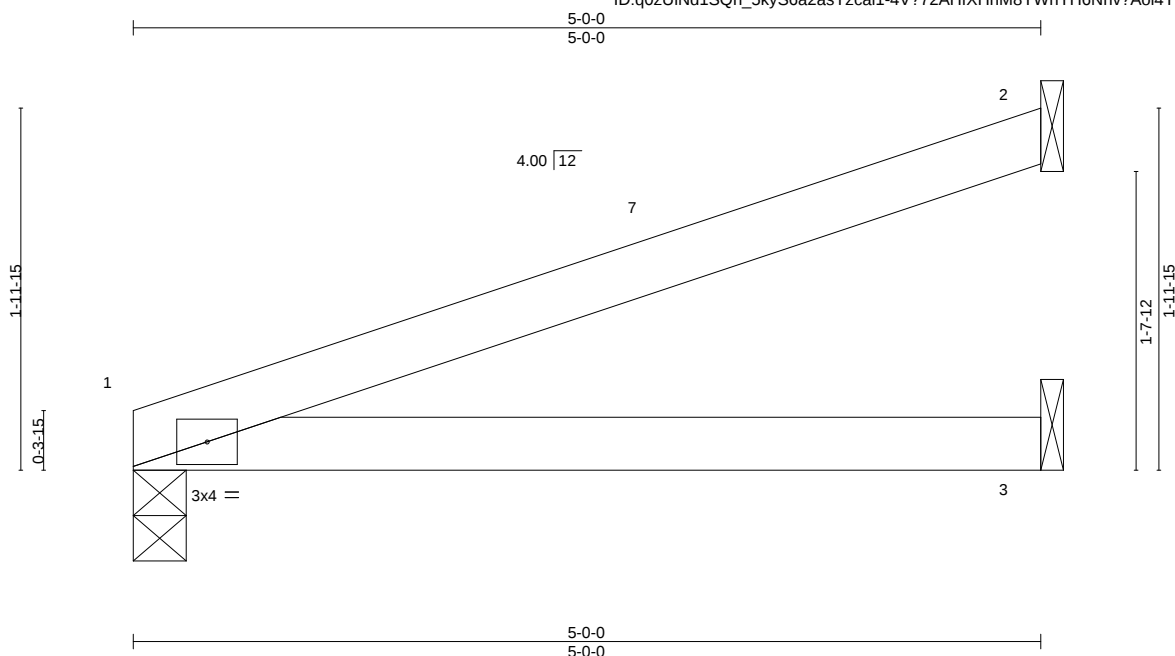
Job 3021298	Truss J11	Truss Type Jack-Open	Qty 1	Ply 1	SUMMIT/HAWTHORN RIDGE #139/MO Job Reference (optional)	I49230812
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:12 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-4V?72AHfXhM8YWhYH6Nhv?Aoi4YB3uHjFan8zy9OMz



Scale = 1:12.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	0.05	3-6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.07	3-6	>859	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	1	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 12 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

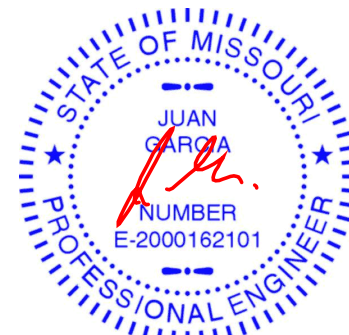
REACTIONS.

(size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=67(LC 8)
Max Uplift 1=-39(LC 8), 2=-64(LC 8)
Max Grav 1=222(LC 1), 2=152(LC 1), 3=89(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 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



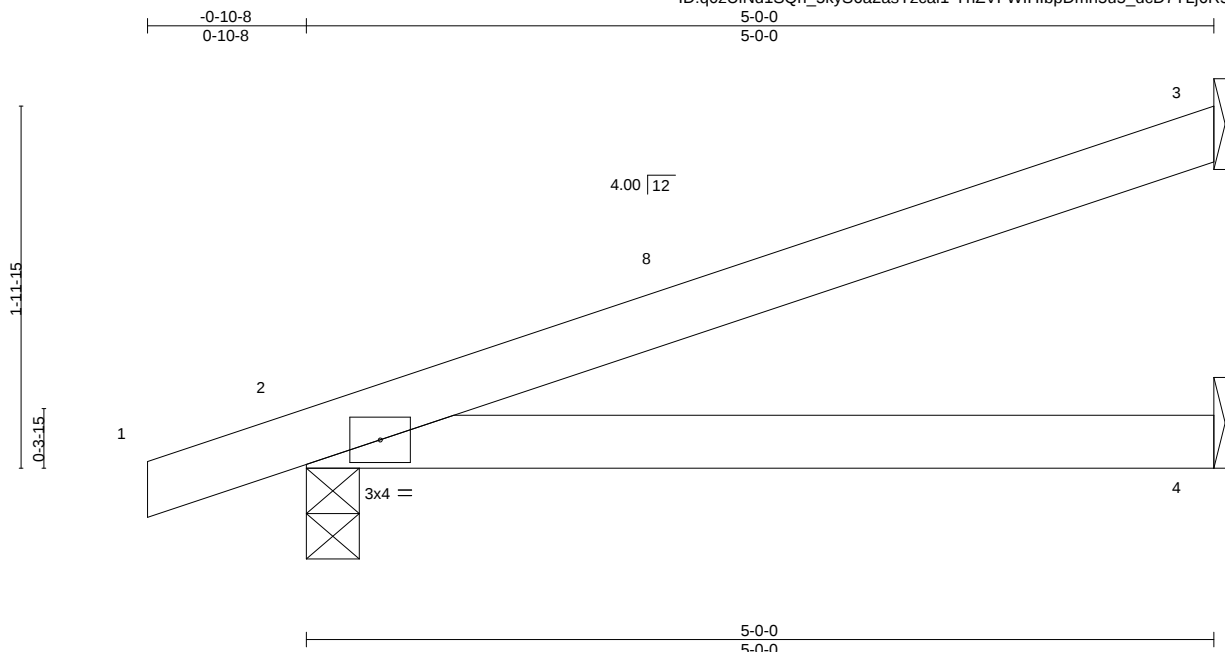
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	J12	Jack-Open	3	1	I49230813
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:13 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-YhZVFWIHlpDmh5u5_dcD7YLj6R5wW8RyvJKhPy9OMy



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	0.04	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.06	4-7	>917	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

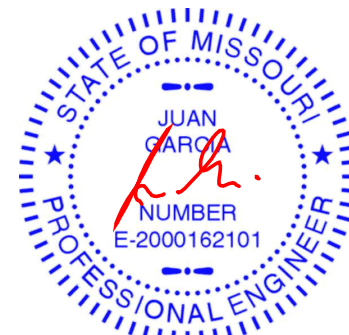
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=83(LC 8)
Max Uplift 3=-63(LC 12), 2=-80(LC 8)
Max Grav 3=149(LC 1), 2=289(LC 1), 4=88(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 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

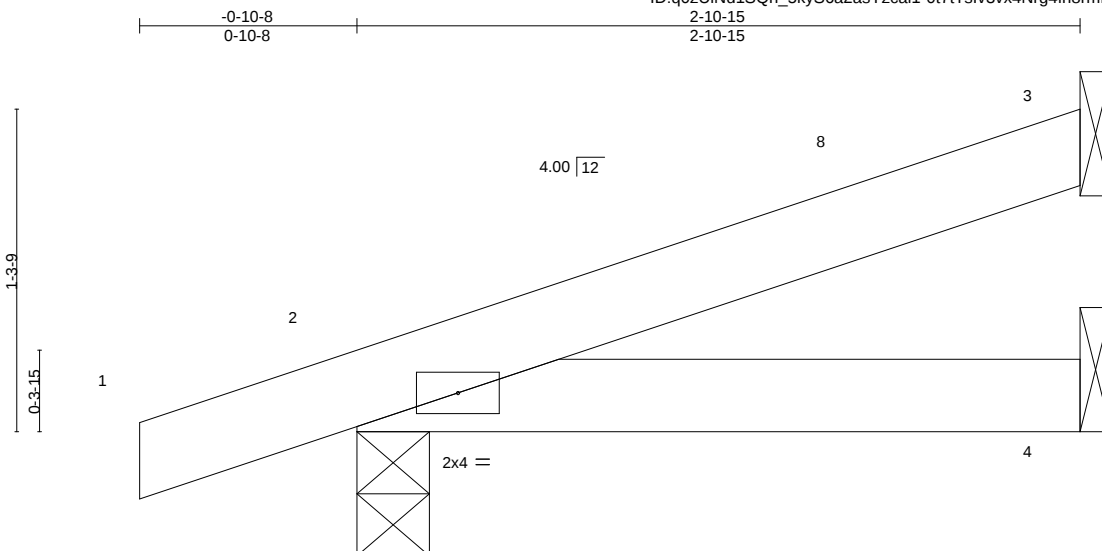
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230814
3021298	J13	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:14 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-0t7tTslv3vx4Nrg4fh8rmK4Z_Wp2fzNaBZ3uDry9OMx



Scale = 1:9.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

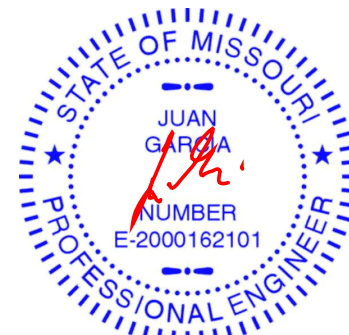
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=55(LC 8)
Max Uplift 3=-32(LC 12), 2=-66(LC 8)
Max Grav 3=78(LC 1), 2=199(LC 1), 4=50(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

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

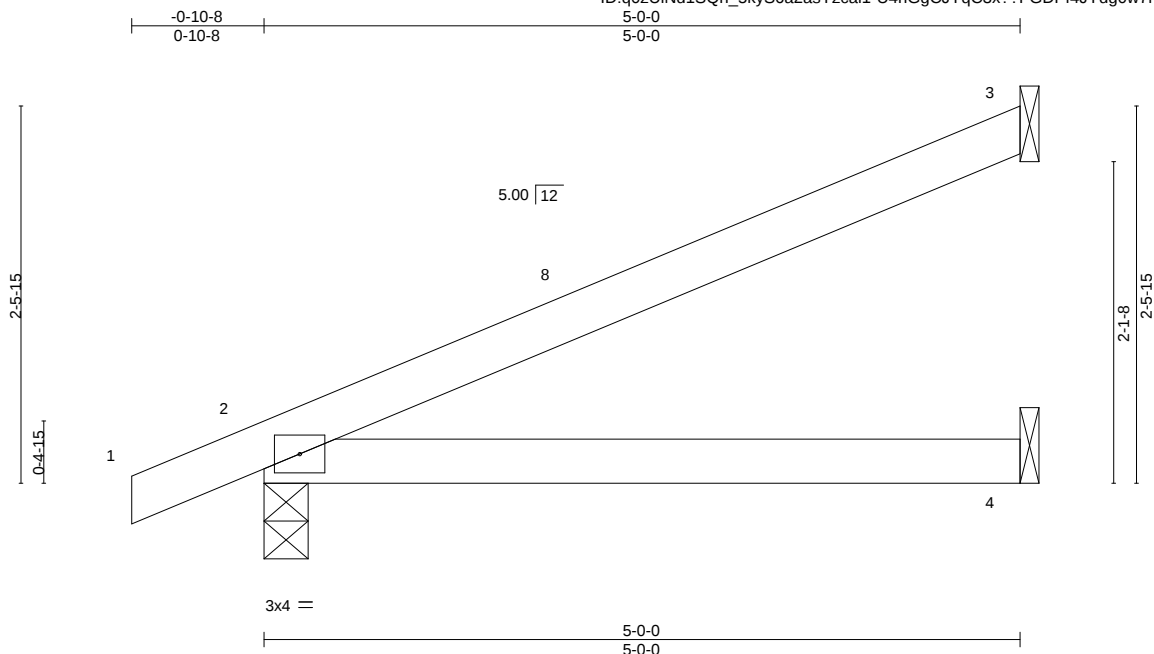
Job 3021298	Truss J15	Truss Type Jack-Open	Qty 2	Ply 1	SUMMIT/HAWTHORN RIDGE #139/MO I49230816
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:15 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-U4hGgCJYqC3x??FGDPf4JYdg0w7rOQdkQDoRlly9OMw



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	0.04	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.06	4-7	>954	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.

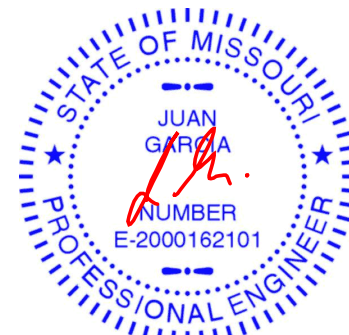
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=97(LC 12)
Max Uplift 3=-72(LC 12), 2=-53(LC 12)
Max Grav 3=152(LC 1), 2=289(LC 1), 4=90(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 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

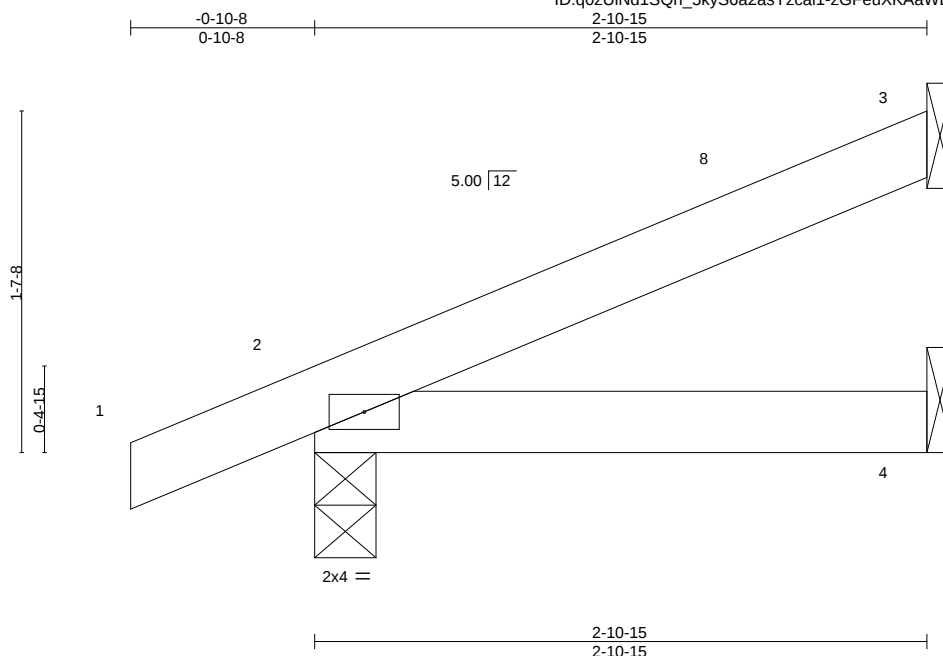
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230817
3021298	J16	Jack-Open	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:16 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-zGFeuXKAaWBod9qTn6BJrIAvKKVg7tttY_Hky9OMv



Scale = 1:11.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

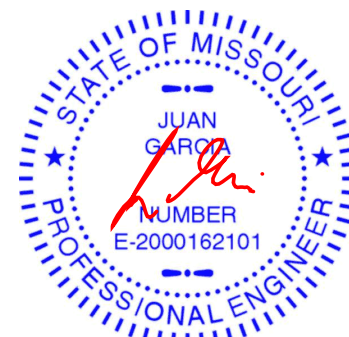
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=61(LC 12)
Max Uplift 3=-39(LC 12), 2=-41(LC 12)
Max Grav 3=81(LC 1), 2=199(LC 1), 4=51(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

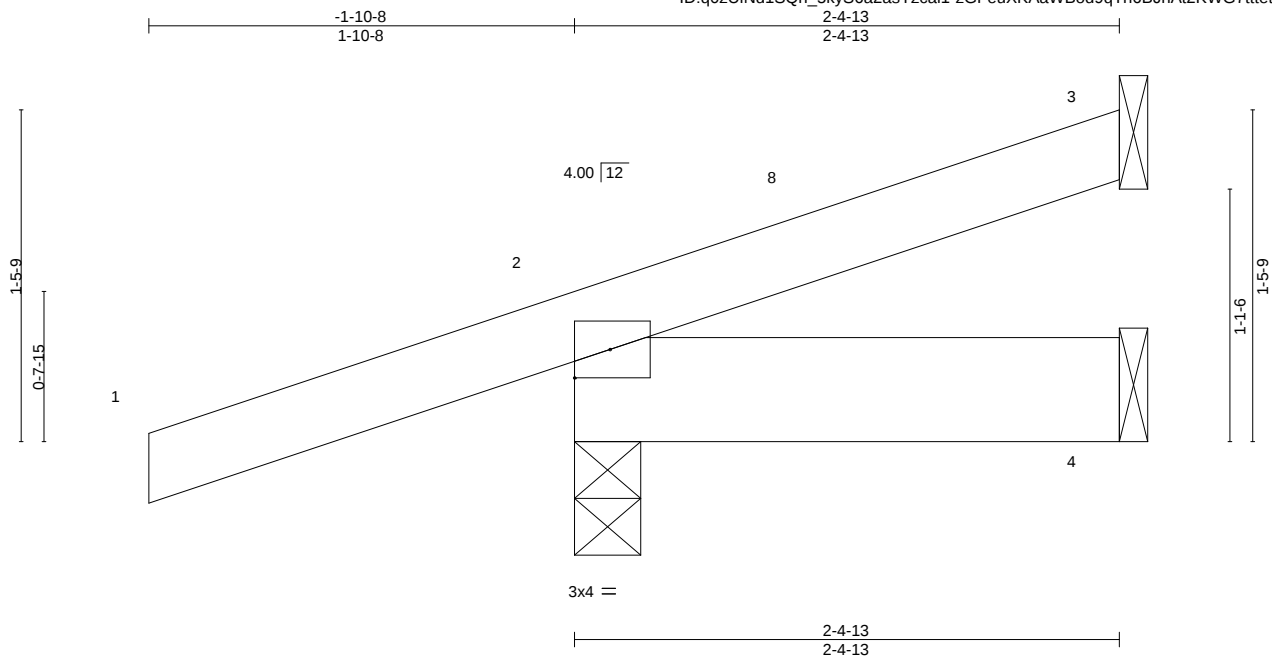
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO	I49230818
3021298	J17	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:16 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-zGFeuXKAaWBod9qTn6BjrlAt2KWG7tttetY_Hky9OMv



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 10 lb	FT = 20%

LUMBER-

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

BRACING-

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

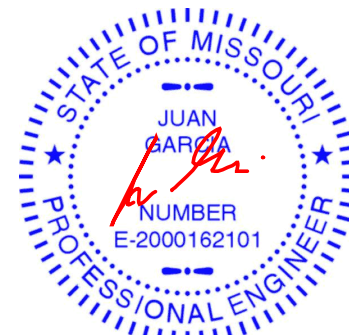
REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=66(LC 8)
Max Uplift 3=-25(LC 12), 2=-127(LC 8)
Max Grav 3=50(LC 1), 2=289(LC 1), 4=38(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-1-8 to 1-1-8, Interior(1) 1-1-8 to 2-4-1 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; 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) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=127.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14,2021

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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	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	LG1	GABLE	1	1	I49230819

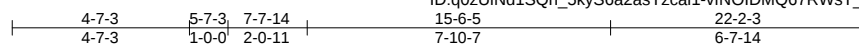
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:18 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-vfNOIDMQ67RWsT_ruXDnwAFE57A7blwA6B15Mdy9OMt

Job Reference (optional)



Scale = 1:59.8

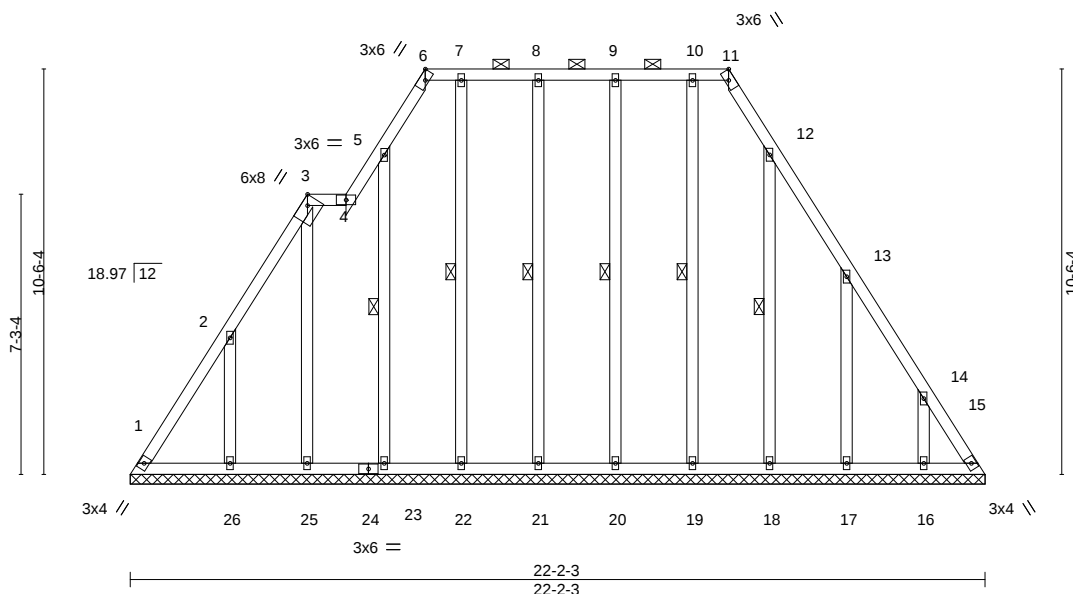


Plate Offsets (X,Y)--		[3:0-2-15,Edge], [6:0-2-15,Edge], [11:0-2-15,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14
TCDL 10.0	Lumber DOL	1.15	BC 0.07
BCLL 0.0	Rep Stress Incr	YES	WB 0.16
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.01 15 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 147 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-4, 6-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-23, 7-22, 8-21, 9-20, 10-19, 12-18

REACTIONS.

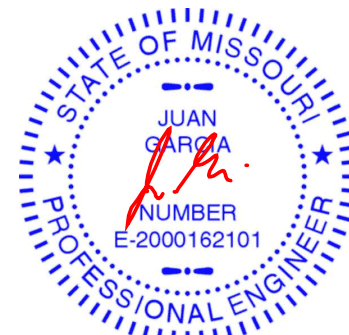
All bearings 22-2-3.
(lb) - Max Horz 1=302(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 23, 22, 21, 20, 19 except 1=177(LC 10), 15=240(LC 11), 26=323(LC 12), 25=190(LC 12), 18=160(LC 13), 17=271(LC 13), 16=221(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 25, 23, 22, 21, 20, 19, 18, 16 except 1=410(LC 12), 15=468(LC 13), 26=329(LC 19), 17=262(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=505/359, 13-14=357/239, 14-15=563/397
BOT CHORD 1-26=231/332, 25-26=231/332, 23-25=231/332, 22-23=231/332, 21-22=231/332, 20-21=231/332, 19-20=231/332, 18-19=231/332, 17-18=231/332, 16-17=231/332, 15-16=231/332
WEBS 2-26=322/326, 13-17=288/289

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 4-7-3, Exterior(2E) 4-7-3 to 5-7-3, Interior(1) 5-7-3 to 7-7-14, Exterior(2R) 7-7-14 to 10-7-1, Interior(1) 10-7-1 to 15-6-5, Exterior(2R) 15-6-5 to 18-7-1, Interior(1) 18-7-1 to 21-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23, 22, 21, 20, 19 except (jt=lb) 1=177, 15=240, 26=323, 25=190, 18=160, 17=271, 16=221.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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MiTek
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Chesterfield, MO 63017

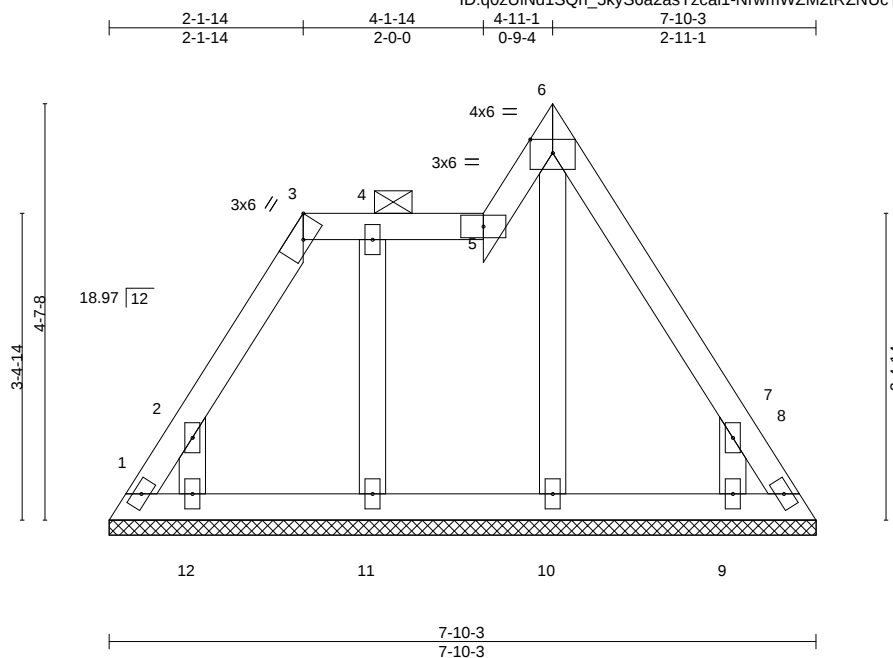
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	LG2	GABLE	1	1	I49230820
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:19 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-NrwmWZM2tRZNUcY2SFk0TOoQIXX5KEzJLrmfu3y9OMs



Scale = 1:25.6

Plate Offsets (X,Y)--		[3:0-2-15,Edge], [6:Edge,0-1-13]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0	Rep Stress Incr	YES	WB 0.04
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 8 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 33 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

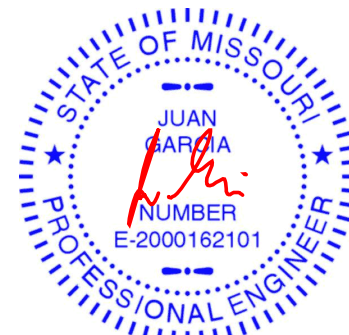
All bearings 7-10-3.
(lb) - Max Horz 1=-124(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 11 except 8=-138(LC 11), 12=-168(LC 12), 9=-225(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 10, 11, 12, 9

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

WEBS 7-9=-266/239

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 4-1-14, Interior(1) 4-1-14 to 4-11-1, Exterior(2E) 4-11-1 to 7-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10, 11 except (jt=lb) 8=138, 12=168, 9=225.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 14, 2021

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



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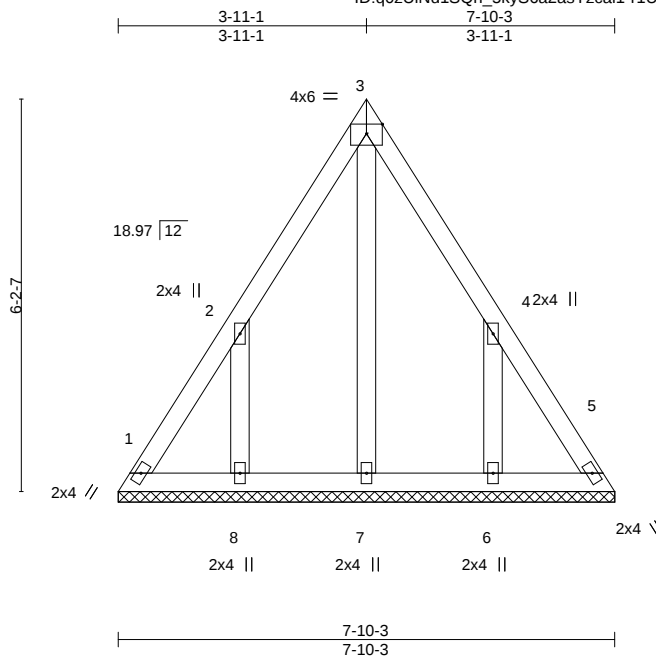
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	LG3	GABLE	1	1	I49230821
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:q0zUiNd1SQn_5kyS6a2asYzcai1-r1U9jvNgelHE6m7E0yFG0bKbBxtF3h?TZVWCQV9OMr



Scale = 1:36.4

Plate Offsets (X,Y)--		[3:Edge,0-1-13]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10
TCDL 10.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.06
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 5 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 37 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-10-3.

(lb) - Max Horz 1=-171(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-279(LC 12), 6=-279(LC 13)

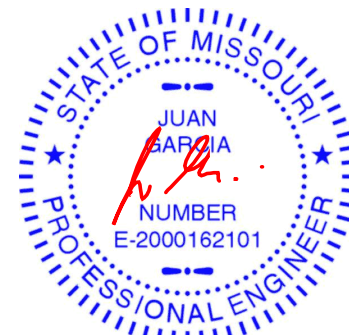
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=283(LC 19), 6=283(LC 20)

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

WEBS 2-8=-337/296, 4-6=-337/296

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 3-11-1, Exterior(2R) 3-11-1 to 6-11-1, Interior(1) 6-11-1 to 7-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=279, 6=279.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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Chesterfield, MO 63017

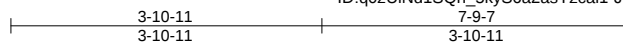
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	LG4	GABLE	1	1	I49230822
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:21 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-JD2XxFOIP2p4jwiQZgmVYptnaLDZo8eco9Flzxy9OMq



4x6 =

Scale = 1:28.8

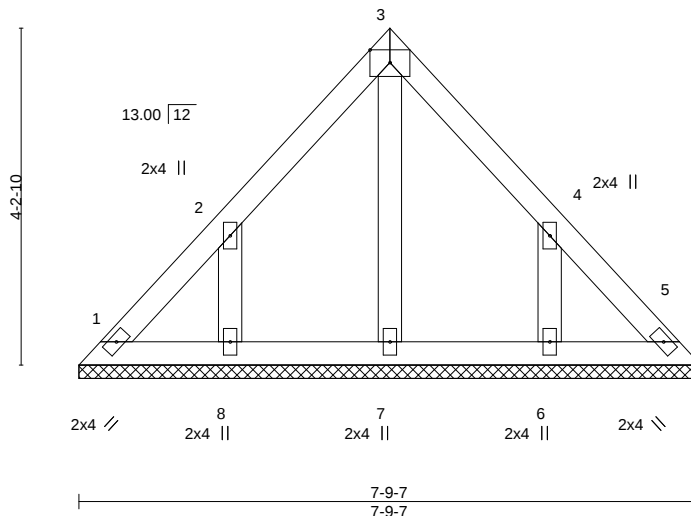


Plate Offsets (X,Y)--		[3:Edge,0-1-15]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06
TCDL 10.0	Lumber DOL	1.15	BC 0.02
BCLL 0.0	Rep Stress Incr	YES	WB 0.03
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 5 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 28 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 7-9-7.

(lb) - Max Horz 1=103(LC 9)

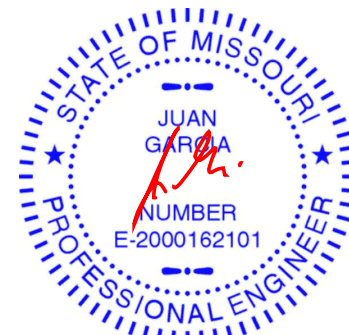
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=154(LC 12), 6=153(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 3-10-11, Exterior(2R) 3-10-11 to 6-10-11, Interior(1) 6-10-11 to 7-5-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=154, 6=153.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 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

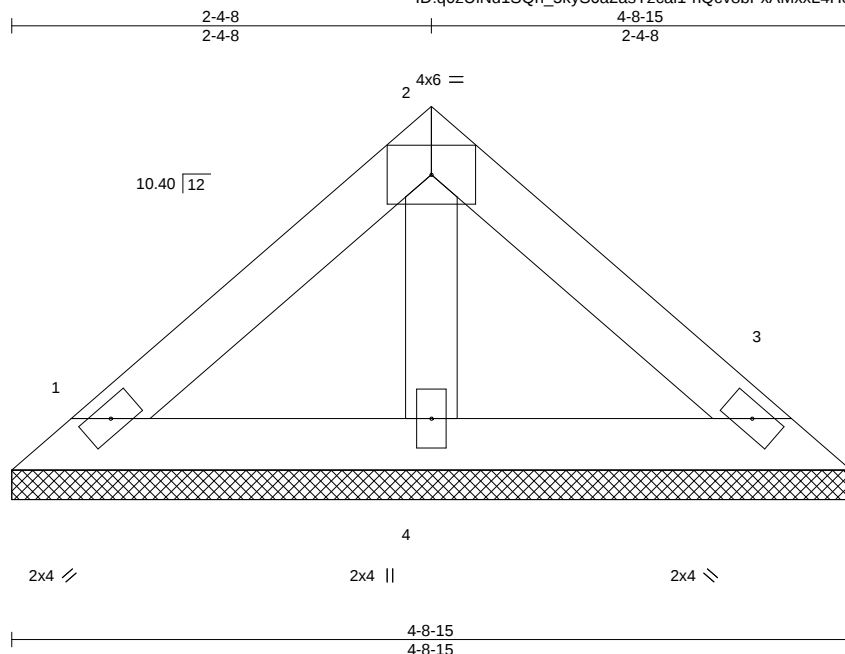
Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	LG5	GABLE	1	1	I49230823
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:22 2021 Page 1

ID:q0zUiNd1SQn_5kyS6a2asYzcai1-nQcv8bPxAMxxL4Hc7NHk50PxxkZdXa9m1p?JVOy9OMP



Scale = 1:13.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.01	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 13 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-8-15, 3=4-8-15, 4=4-8-15
Max Horz 1=45(LC 11)
Max Uplift 1=25(LC 13), 3=29(LC 13), 4=3(LC 12)
Max Grav 1=104(LC 1), 3=104(LC 1), 4=149(LC 1)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	LG6	GABLE	1	1	I49230824
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 11:39:23 2021 Page 1

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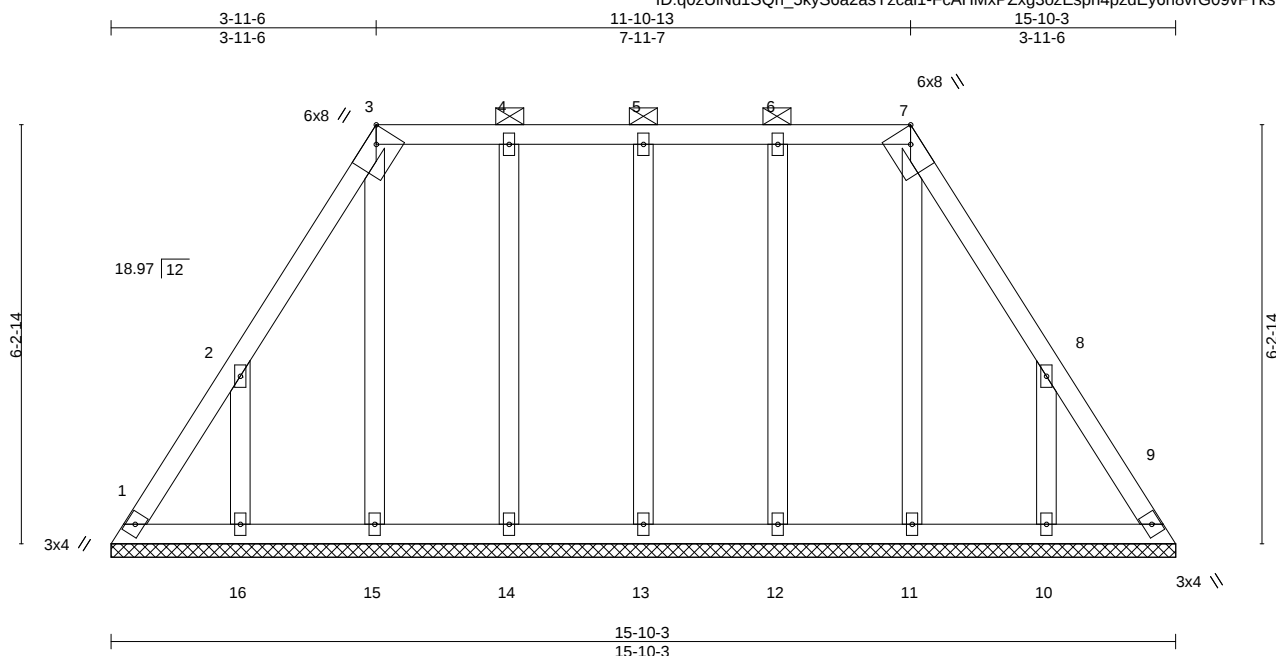


Plate Offsets (X,Y)--		[3:0-2-15,Edge], [7:0-2-15,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 10.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0	Rep Stress Incr	YES	WB 0.09
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 9 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 81 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 15-10-3.
(lb) - Max Horz 1=174(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 9, 13, 14, 15, 12, 11 except 1=110(LC 10), 16=271(LC 12), 10=271(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 12, 11 except 16=275(LC 19), 10=274(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-16=290/278, 8-10=290/278

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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-3 to 3-3-3, Interior(1) 3-3-3 to 3-11-6, Exterior(2R) 3-11-6 to 7-11-1, Interior(1) 7-11-1 to 11-10-13, Exterior(2E) 11-10-13 to 15-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 13, 14, 15, 12, 11 except (jt=lb) 1=110, 16=271, 10=271.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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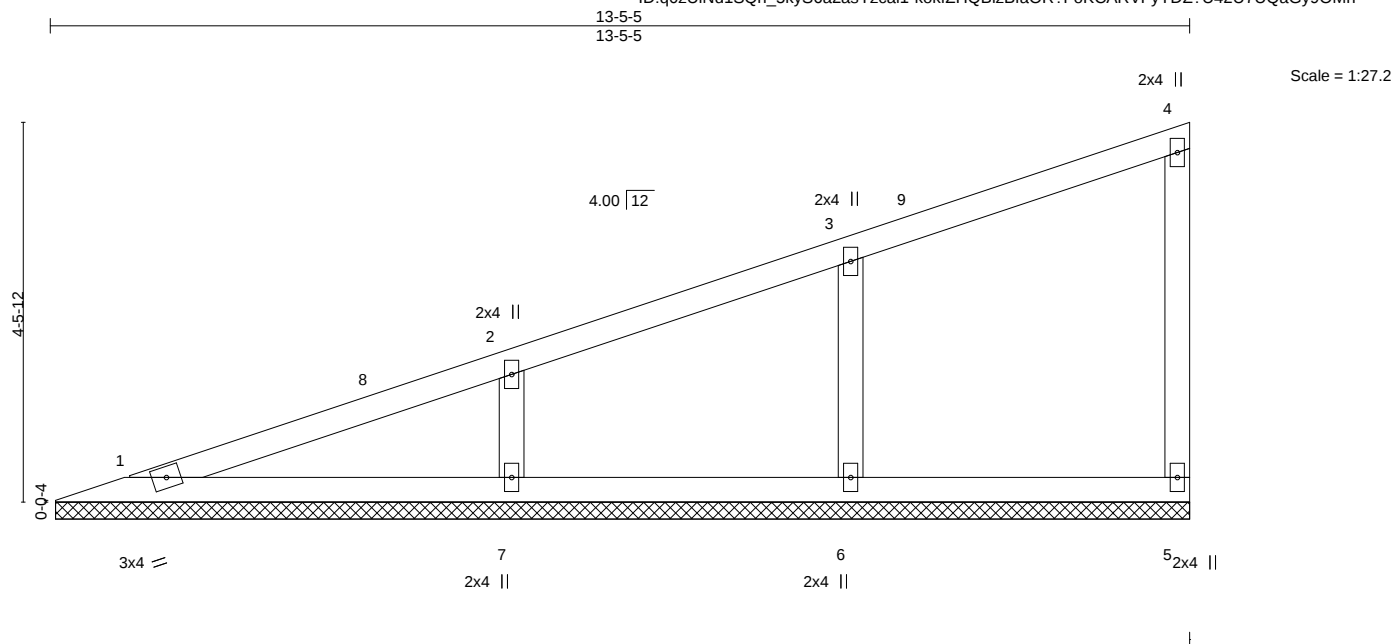
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/HAWTHORN RIDGE #139/MO
3021298	V01	Valley	1	1	I49230825
Job Reference (optional)					

Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:q0zUiNd1SQn_5kyS6a2asYzcai1-kokfZHQBizBfaOR?FoKCARVFyYDZ?U42U7UQaGy9OMn



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 39 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 13-4-9.

(lb) - Max Horz 1=184(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6 except 7=-121(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=361(LC 1), 7=436(LC 1)

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

WEBS 3-6=-284/168, 2-7=-330/183

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-11-5 to 3-11-5, Interior(1) 3-11-5 to 13-3-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6 except (jt=lb) 7=121.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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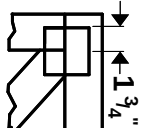
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



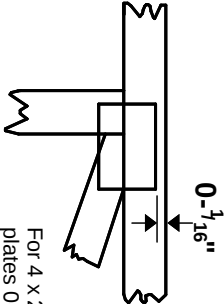
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



Center plate on joint unless X, Y offsets are indicated. Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

*** Plate location details available in MiTek 2012 software or upon request.**

PLATE SIZE

4 X 4

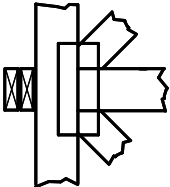
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



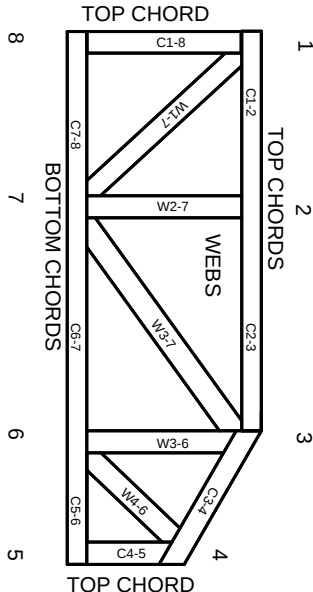
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MiTek Engineering Reference Sheet: MIL-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.