



RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
07/08/2021 5:01:16

MiTek USA, Inc.

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

Re: 2826819

SUMMIT/hawthorne ridge #127/MO

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

Pages or sheets covered by this seal: I46505623 thru I46505661

My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



June 10, 2021

Sevier, Scott ,Engineer

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 or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO 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.

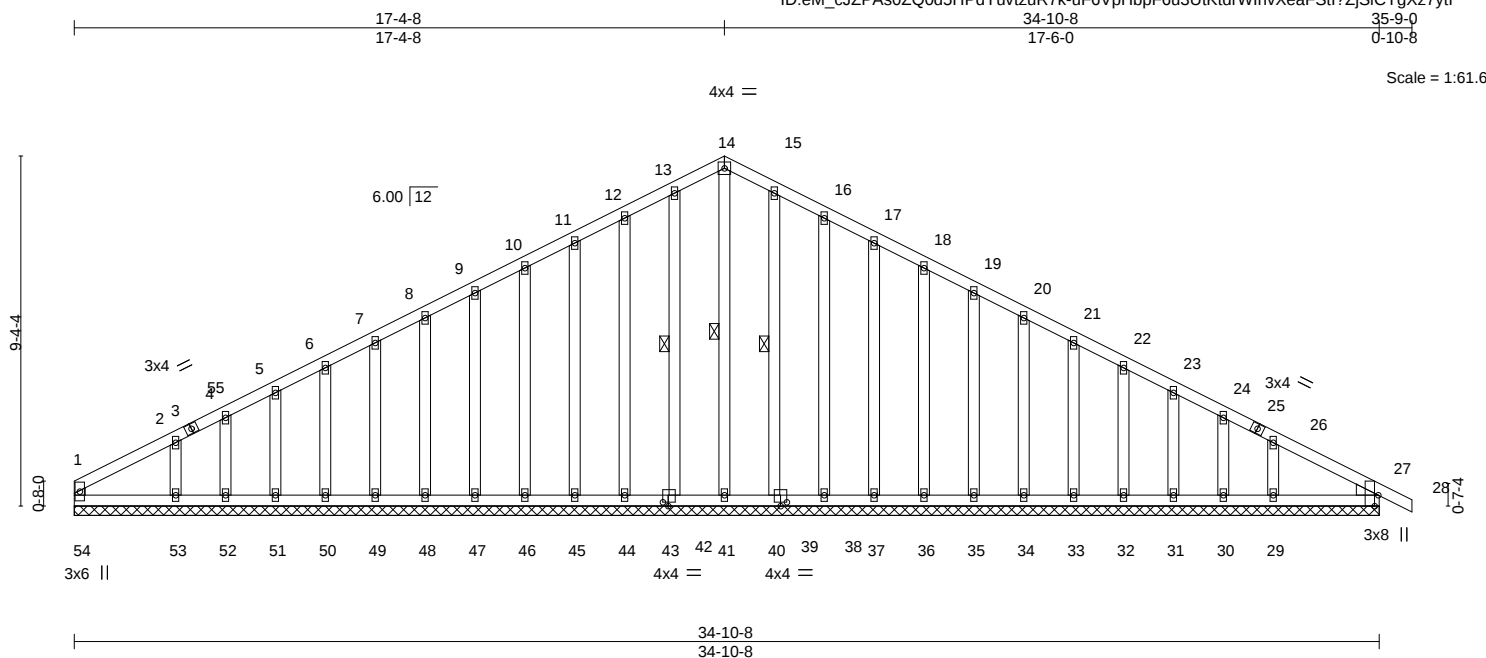


Plate Offsets (X,Y)-- [27:0-3-8,Edge], [40:0-2-0,0-1-4], [43:0-1-12,0-1-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	0.00	28	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	28	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	27	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							Weight: 217 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
 WEDGE
 Right: 2x4 SPF No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 14-41, 13-42, 15-40

REACTIONS.

ONS. All bearings 34-10-8.
(lb) - Max Horz 54--166(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 54, 42, 44, 45, 46, 47, 48, 49, 50,
51, 52, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 27 except 53--132(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 54, 41, 42, 44, 45, 46, 47, 48,
49, 50, 51, 52, 53, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 27

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

TOP CHORD 11-12=-102/266, 12-13=-115/304, 13-14=-121/324, 14-15=-121/324, 15-16=-115/304,
16-17=-102/266

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 Corner(3E) 0-1-12 to 3-7-10, Exterior(2N) 3-7-10 to 17-4-8, Corner(3R) 17-4-8 to 20-10-6, Exterior(2N) 20-10-6 to 35-9-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 54, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 27 except (jt=lb) 53=132.
- 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.



June 10, 2021



WARNING – Velly design parameters are READ-ONLY 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/hawthorne ridge #127/MO	146505624
2826819	A2	COMMON	7	1	Job Reference (optional)	

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

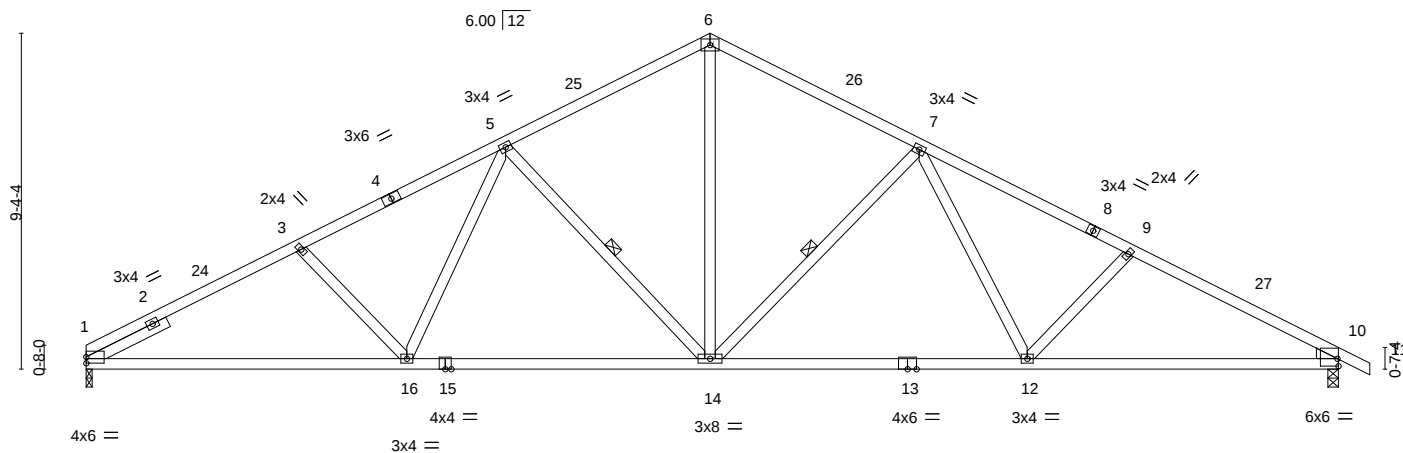
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ID:eM_cJZPAs0ZQ0d5HPdYuvtzur7k-qeEFEyd4nk8mjBUGkGYmnKdtQ3yNmr30v3hflPz7ytG

5-11-13	11-8-3	17-4-8	23-2-6	29-0-5	34-10-8	35-9-0
5-11-13	5-8-5	5-8-5	5-9-14	5-9-14	5-10-3	0-10-8

4x6 =

Scale: 3/16"=1'



8-11-3	17-4-8	26-2-8	34-10-8
8-11-3	8-5-5	8-10-0	8-8-0

Plate Offsets (X,Y)--		[1:0-0-0,0-2-1], [10:Edge,0-2-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.57	Vert(LL)	-0.18 12-14 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL 1.15		BC	0.84	Vert(CT)	-0.40 12-14 >999 180		
BCLL	0.0	Rep Stress Incr YES		WB	0.29	Horz(CT)	0.11 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 146 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 1-15: 2x4 SP 2400F 2.0E
 WEBS 2x4 SPF No.2
 WEDGE
 Right: 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 -t 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 5-14, 7-14

REACTIONS.

(size) 1=0-2-0, 10=0-3-8
 Max Horz 1=-171(LC 13)
 Max Uplift 1=-258(LC 12), 10=-279(LC 13)
 Max Grav 1=1569(LC 1), 10=1631(LC 1)

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

TOP CHORD 1-3=-2680/460, 3-5=-2482/448, 5-6=-1820/406, 6-7=-1823/403, 7-9=-2527/445,
 9-10=-2770/467
 BOT CHORD 1-16=-475/2336, 14-16=-315/1992, 12-14=-216/2009, 10-12=-325/2388
 WEBS 3-16=-299/191, 5-16=-74/417, 5-14=-690/275, 6-14=-202/1171, 7-14=-701/281,
 7-12=-75/438, 9-12=-314/194

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) 0-0-0 to 3-5-14, Interior(1) 3-5-14 to 17-4-8, Exterior(2R) 17-4-8 to 20-10-6, Interior(1) 20-10-6 to 35-9-0 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) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 1.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=258, 10=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.
- 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.



June 10,2021

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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/hawthorne ridge #127/MO	I46505625
2826819	A3	COMMON	1	1		

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

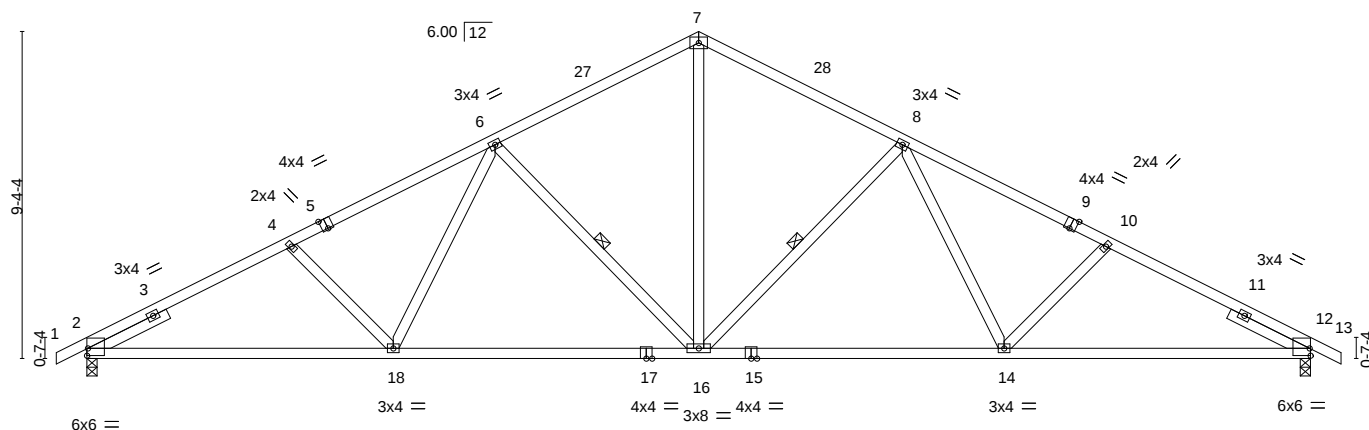
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0-10-8 5-10-3 11-8-2 17-6-0 23-3-14 29-1-13 35-0-0 35-10-8
0-10-8 5-10-3 5-9-14 5-9-14 5-9-14 5-9-14 5-10-3 0-10-8

4x6 =

Scale = 1:65.9



	8-9-3	17-6-0	26-2-13	35-0-0
	8-9-3	8-8-13	8-8-13	8-9-3

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	-0.17 14-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.77	Vert(CT)	-0.38 14-16	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.28	Horz(CT)	0.13 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 146 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 -t 2-6-0, Right 2x4 SPF No.2 -t 2-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-16, 6-16

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
Max Horz 2=162(LC 12)
Max Uplift 2=281(LC 12), 12=281(LC 13)
Max Grav 2=1633(LC 1), 12=1633(LC 1)

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

TOP CHORD 2-4=-2655/457, 4-6=-2468/434, 6-7=-1805/392, 7-8=-1805/392, 8-10=-2468/435, 10-12=-2655/457
BOT CHORD 2-18=-474/2307, 16-18=-318/1983, 14-16=-203/1983, 12-14=-313/2307
WEBS 7-16=-193/1156, 8-16=-689/278, 8-14=-67/407, 10-14=-271/185, 6-16=-689/278, 6-18=-67/407, 4-18=-271/185

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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 17-6-0, Exterior(2R) 17-6-0 to 20-6-0, Interior(1) 20-6-0 to 35-10-8 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=281, 12=281.
- This truss 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.



June 10,2021

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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/hawthorne ridge #127/MO
2826819	A3A	Roof Special	1	1	146505626

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

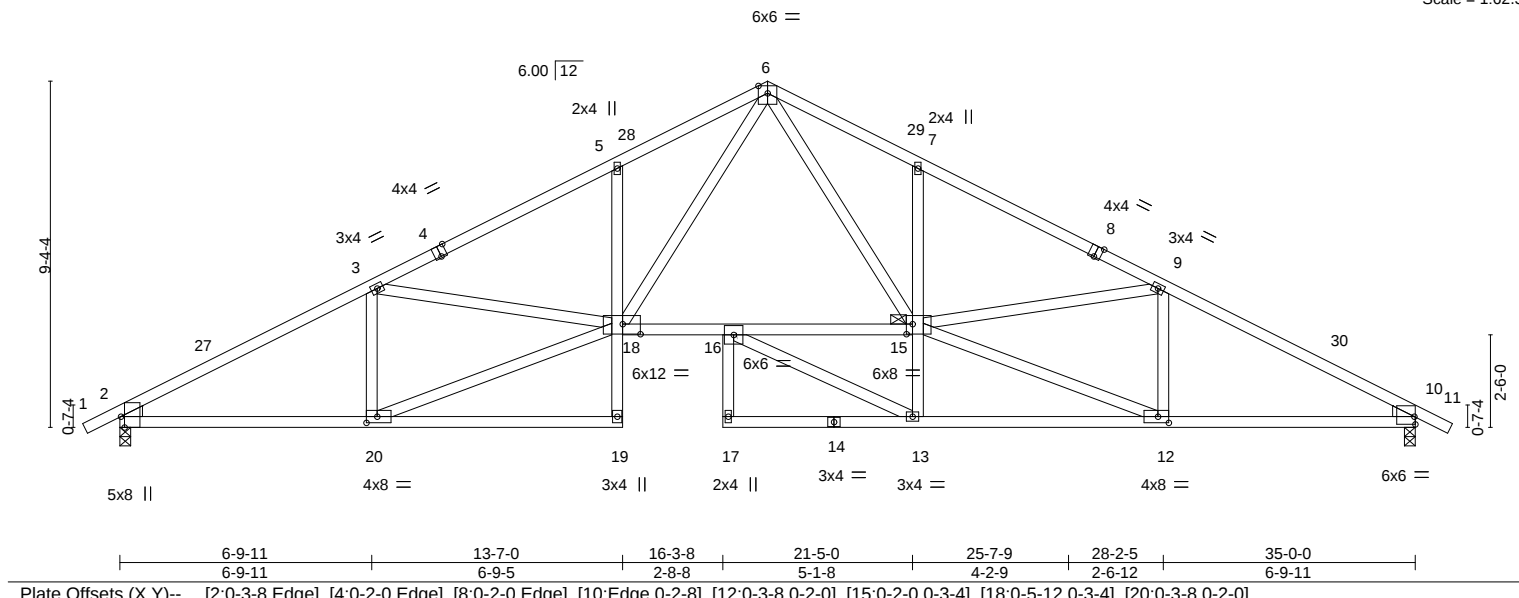
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Job Reference (optional)

0-10-8 6-9-11 13-7-0 16-3-8 17-6-0 21-5-0 23-3-14 28-2-5 29-1-13 35-0-0 35-10-8
0-10-8 6-9-11 6-9-5 2-8-8 1-2-8 3-11-0 1-10-14 4-10-7 0-11-8 5-10-3 0-10-8

Scale = 1:62.3



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 0.66	Vert(LL)	-0.34	16	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.64	16	>659	180	
BCLL 0.0	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.24	10	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 173 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
JOINTS 1 Brace at Jt(s): 15

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=-163(LC 13)
Max Uplift 2=-281(LC 12), 10=-281(LC 13)
Max Grav 2=1641(LC 1), 10=1641(LC 1)

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

TOP CHORD 2-3=-2770/448, 3-5=-3387/547, 5-6=-3369/657, 6-7=-3158/553, 7-9=-3191/458,
9-10=-2768/451
BOT CHORD 2-20=-460/2381, 5-18=-402/215, 16-18=-176/2052, 15-16=-102/1780, 12-13=-85/290,
10-12=-300/2381
WEBS 3-20=801/230, 13-15=0/281, 7-15=-403/220, 6-18=-429/1696, 6-15=-282/1372,
9-12=-687/133, 12-15=-232/2228, 9-15=-1/428, 18-20=-497/2536, 3-18=0/565

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) -0-11-5 to 2-6-11, Interior(1) 2-6-11 to 17-6-0, Exterior(2R) 17-6-0 to 21-0-0, Interior(1) 21-0-0 to 35-11-5 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=281, 10=281.
- 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.



June 10,2021

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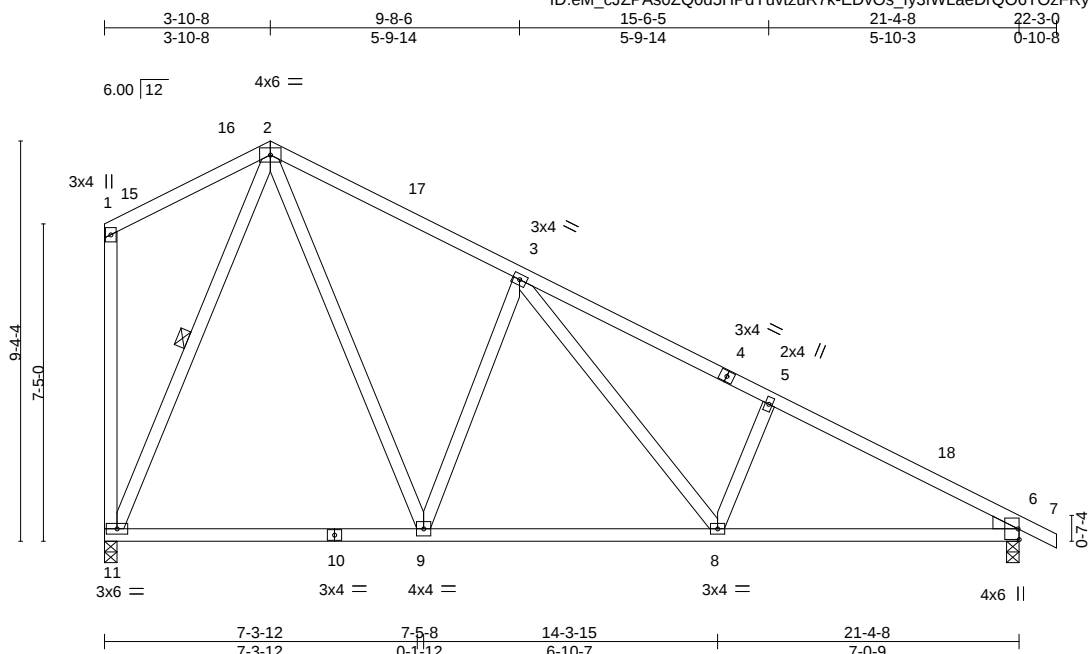
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	I46505627
2826819	A4	COMMON	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:eM_cJZPAs0ZQd5HPdYuvztuR7k-EDvOs_fy3fWLaeDrQO6TOzFRyG5Oz9kSc1vJMkz7ytD



Scale = 1:53.9

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 0.36	Vert(LL)	-0.08 9-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.16 9-11	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.02 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 102 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-11

REACTIONS.

(size) 6=0-3-8, 11=0-3-8
Max Horz 11=-327(LC 10)
Max Uplift 6=-193(LC 13), 11=-194(LC 13)
Max Grav 6=1018(LC 1), 11=954(LC 1)

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

TOP CHORD 2-3=-804/318, 3-5=-1403/375, 5-6=-1535/328
BOT CHORD 9-11=-16/383, 8-9=-47/850, 6-8=-189/1299
WEBS 2-9=-237/823, 3-9=-647/295, 3-8=-162/544, 5-8=-335/197, 2-11=-837/322

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-10-8, Exterior(2R) 3-10-8 to 6-10-8, Interior(1) 6-10-8 to 22-3-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=193, 11=194.
- 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.



June 10, 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/hawthorne ridge #127/MO
2826819	A4A	ROOF SPECIAL	2	1	146505628

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:05 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvtzR7k-iPTm4KgaqyeCCOn1z6dixAnWcgO?iZlcqhsuBz7ytC

Job Reference (optional)

0-4-0 3-10-8 9-8-6 11-0-0 12-6-4 15-6-5 16-11-15 21-4-8 22-3-0
0-4-0 3-6-8 5-9-14 1-3-10 1-6-4 3-0-1 1-5-10 4-4-9 0-10-8

Scale = 1:53.5

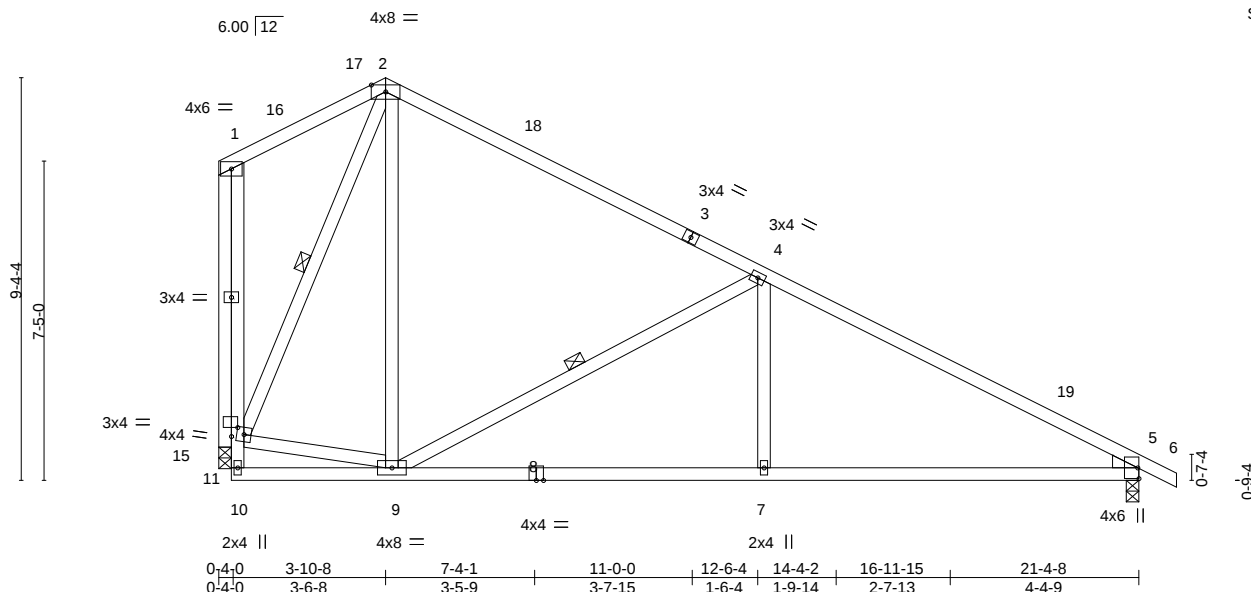


Plate Offsets (X,Y)--		[11:0-1-12,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.75		Vert(LL) -0.10 7-9 >999 240				MT20		197/144	
TCDL	10.0	Lumber DOL 1.15		BC 0.60		Vert(CT) -0.21 7-9 >999 180							
BCLL	0.0	Rep Stress Incr YES		WB 0.66		Horz(CT) 0.01 5 n/a n/a							
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 108 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
WEDGE
Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 4-9, 2-11

REACTIONS.

(size) 5=0-3-8, 15=0-3-8
Max Horz 15=-320(LC 13)
Max Uplift 5=-178(LC 13), 15=-209(LC 13)
Max Grav 5=1018(LC 1), 15=928(LC 1)

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

TOP CHORD 2-4=-571/140, 4-5=-1444/237, 1-11=-210/844
BOT CHORD 7-9=-97/1195, 5-7=-97/1195
WEBS 2-9=-136/534, 4-9=-941/347, 4-7=0/361, 9-11=0/398, 2-11=-827/267, 1-15=-929/247

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) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 3-10-8, Exterior(2R) 3-10-8 to 6-10-8, Interior(1) 6-10-8 to 22-3-0 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.
- Bearing at joint(s) 15 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) 5=178, 15=209.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	A4B	Roof Special	1	1	I46505629

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:eM_cJZPAs0ZQ0d5HPdYuvtzR7k-Bc18HggCbGm3pyMDXp8xUNKho4hSRznI3LOQdZ7ytB

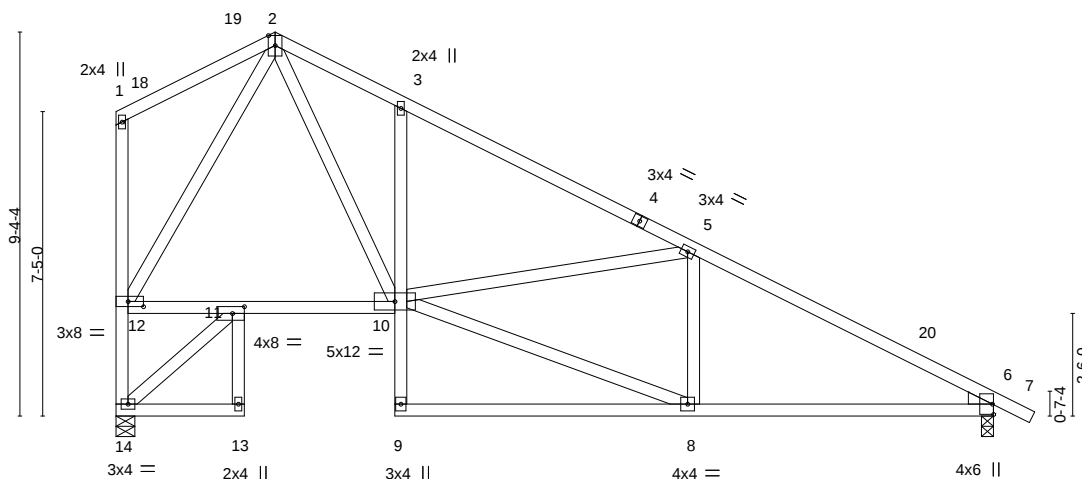
Job Reference (optional)

3-1-8 3-10-8 6-9-8 14-0-13 21-4-8 22-3-0
3-1-8 0-9-0 2-11-0 7-3-5 7-3-11 0-10-8

6.00 12

4x6 ||

Scale = 1:56.1



3-1-8 6-9-8 14-0-13 21-4-8
3-1-8 3-8-0 7-3-5 7-3-11

Plate Offsets (X,Y)-- [11:0-3-8,0-2-0], [12:0-4-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.17 10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.23 10-11	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.21 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 116 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=0-3-8, 14=0-5-8
Max Horz 14=-328(LC 10)
Max Uplift 6=-195(LC 13), 14=-194(LC 13)
Max Grav 6=1023(LC 1), 14=954(LC 1)

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

TOP CHORD 2-3=-1084/313, 3-5=-1151/232, 5-6=-1499/315, 12-14=-905/176
BOT CHORD 11-12=-86/457, 10-11=-7/503, 3-10=-385/199, 6-8=-161/1254
WEBS 8-10=-168/1312, 5-10=-351/304, 5-8=-281/112, 2-12=-844/169, 2-10=-218/1112,
11-14=-279/379

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-10-8, Exterior(2R) 3-10-8 to 7-0-1, Interior(1) 7-0-1 to 22-3-13 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
- 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) 6=195, 14=194.
- This truss 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.



June 10, 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

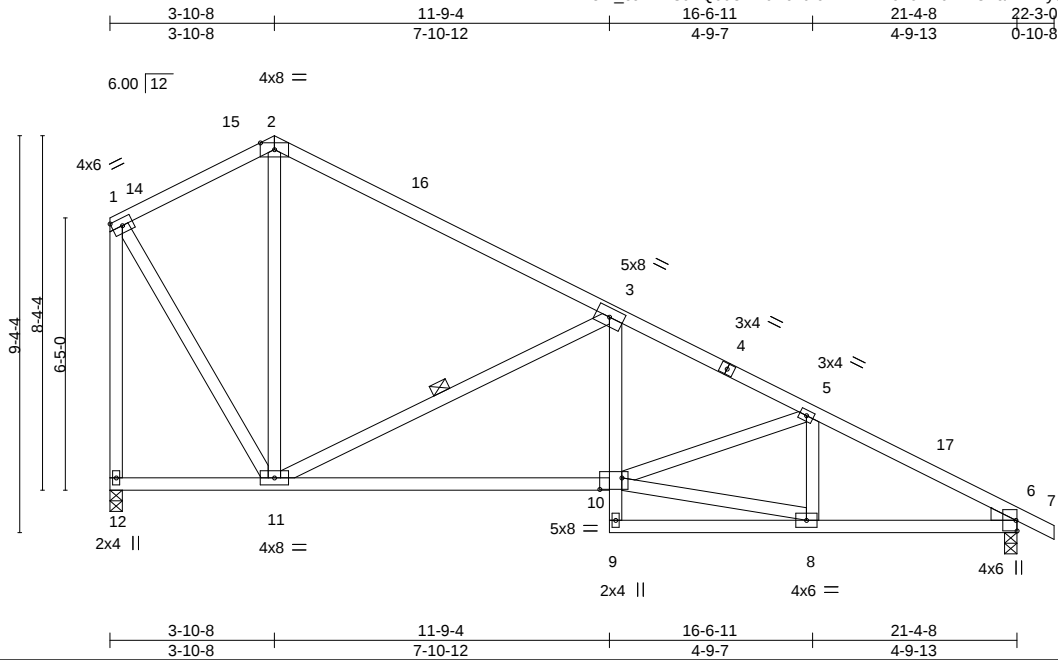


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	i46505630
2826819	A5	ROOF SPECIAL	3	1	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

ID:eM_cJZPAsoZQ0d5HPdYuvtzur7k-MW6L9BnbkzA3KaHz4FyddMk2ZNXSiP8Dty3OJZz7kP2
8.430 s Nov 18 2020 MiTek Industries, Inc. Thu Jun 10 08:52:59 2021 Page 1



Scale = 1:54.3

Plate Offsets (X,Y)-- [10'-0" 6'-4" 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 0.58	Plate (LL)	-0.11 10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.53	Vert(CT)	-0.24 10-11	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.04 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 106 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-11

REACTIONS.

(size) 6=0-3-8, 12=0-3-8
Max Horz 12=-307(LC 8)
Max Uplift 6=-203(LC 13), 12=-185(LC 13)
Max Grav 6=1018(LC 1), 12=954(LC 1)

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

TOP CHORD 1-14=-473/207, 14-15=-390/221, 2-15=-379/225, 2-16=-426/207, 3-16=-584/187,
3-4=-1379/331, 4-5=-1510/309, 5-17=-1519/324, 6-17=-1592/310, 1-12=-942/255
BOT CHORD 11-12=-183/339, 10-11=-144/1356, 3-10=-16/467, 6-8=-201/1363
WEBS 3-11=-1069/345, 8-10=-150/1308, 5-8=-254/83, 1-11=-224/772

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 3-1-12, Interior(1) 3-1-12 to 3-10-8, Exterior(2R) 3-10-8 to 6-10-8, Interior(1) 6-10-8 to 22-3-0 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
- The Fabrication Tolerance at joint 3 = 15%
- 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 203 lb uplift at joint 6 and 185 lb uplift at joint 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center)

Valley Center, KS - 67147,

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ID:eM_cJZPAs0ZQ0d5HPdYuvtzR7k-7_9viLiT7t0n3GWcfEAPZoP3LtQov_z2WftXVVz7yt9

3-10-8

11-9-4

16-6-11

21-4-8

22-3-0

3-10-8

7-10-12

4-9-7

4-9-13

0-10-8

6.00

4x8 =

31

2

4x6 =

1

30

32

5x8 =

3

3x4 =

4

3x4 =

5

33

6

7

0-7-4

1-0-0

9-4-4

8-4-4

6-5-0

12

11

4x8 =

10

5x8 =

9

8

4x6 =

4x6 ||

3-10-8

11-9-4

16-6-11

21-4-8

3-10-8

7-10-12

4-9-7

4-9-13

Plate Offsets (X,Y)--

10:0-6-4,0-3-4

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 0.59	Vert(LL) -0.11 10-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.53	Vert(CT) -0.24 10-11	>999	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.41	Horz(CT) 0.04 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					
						Weight: 141 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

WEDGE

Right: 2x4 SPF No.2

BRACING-

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

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 3-11

REACTIONS.

(size) 12=0-3-8, 6=0-3-8

Max Horz 12=-307(LC 8)

Max Uplift 12=-185(LC 13), 6=-203(LC 13)

Max Grav 12=954(LC 1), 6=1018(LC 1)

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

TOP CHORD 1-2=-473/225, 2-3=-584/207, 3-5=-1509/331, 5-6=-1556/324, 1-12=-942/255

BOT CHORD 11-12=-183/339, 10-11=-144/1358, 3-10=-13/459, 6-8=-194/1321

WEBS 3-11=-1071/345, 8-10=-145/1259, 1-11=-224/772

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-10-8, Exterior(2R) 3-10-8 to 6-10-8, Interior(1) 6-10-8 to 22-3-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) All plates are 2x4 MT20 unless otherwise indicated.

5) Gable studs spaced at 1-4-0 oc.

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) 12=185, 6=203.

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

9) 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.

STATE OF MISSOURI

SCOTT M. SEVIER

PROFESSIONAL ENGINEER

PE-2001018807

June 10,2021

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

16023 Swingley Ridge Rd
Chesterfield, MO 63017

June 10.2021



June 10.2021



WARNING – Velly design parameters are READ-ONLY on this and INCLUDED WITH REFERENCE PAGE MH-1413 (Rev. 3/29/2020) BEFORE USE.
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	B1	COMMON SUPPORTED GAB	1	1	146505632

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

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ID:eM_cJZPA0ZQ0d5HPdYuvtzur7k-bAjHvhj5uB8egQ5oCxie50yMAHufeXfBlJd41yz7yt8

Job Reference (optional)

0-10-8 10-8-4 21-4-8 22-3-0
0-10-8 10-8-4 10-8-4 0-10-8

Scale = 1:39.7

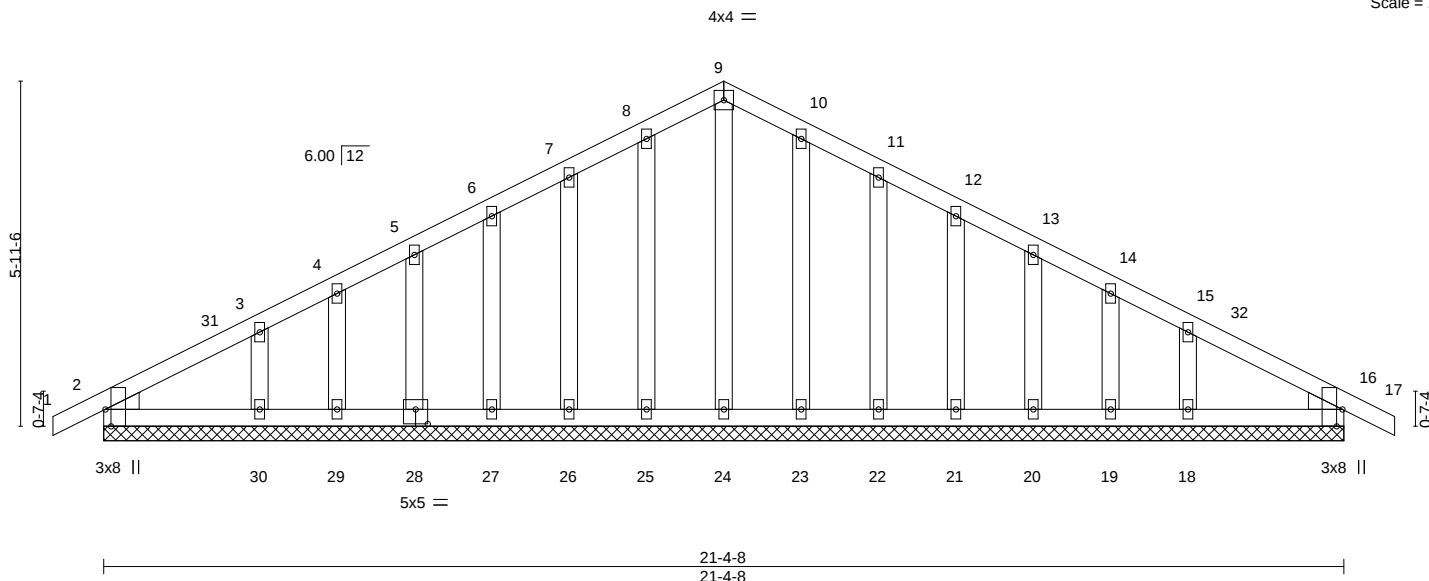


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [16:0-3-8,Edge], [28:0-2-8,0-3-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 10.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0	Rep Stress Incr	YES	WB 0.06
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	0.00	16	n/r
Vert(CT)	0.00	17	n/r
Horz(CT)	0.00	16	n/a
PLATES	GRIP		
MT20	197/144		
Weight: 104 lb		FT = 20%	

LUMBER-

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

WEDGE

Left: 2x4 SPF No.2 , Right: 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 21-4-8.

(lb) - Max Horz 2=-102(LC 17)

Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 10-8-4, Corner(3R) 10-8-4 to 13-8-4, Exterior(2N) 13-8-4 to 22-3-0 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- 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) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10,2021

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

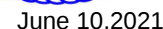
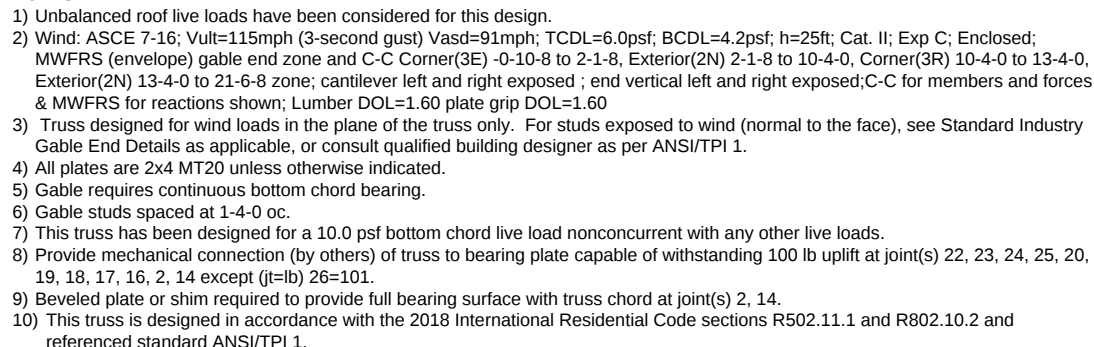
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 = 1:35.9

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	146505634
2826819	C2	COMMON	4	1		

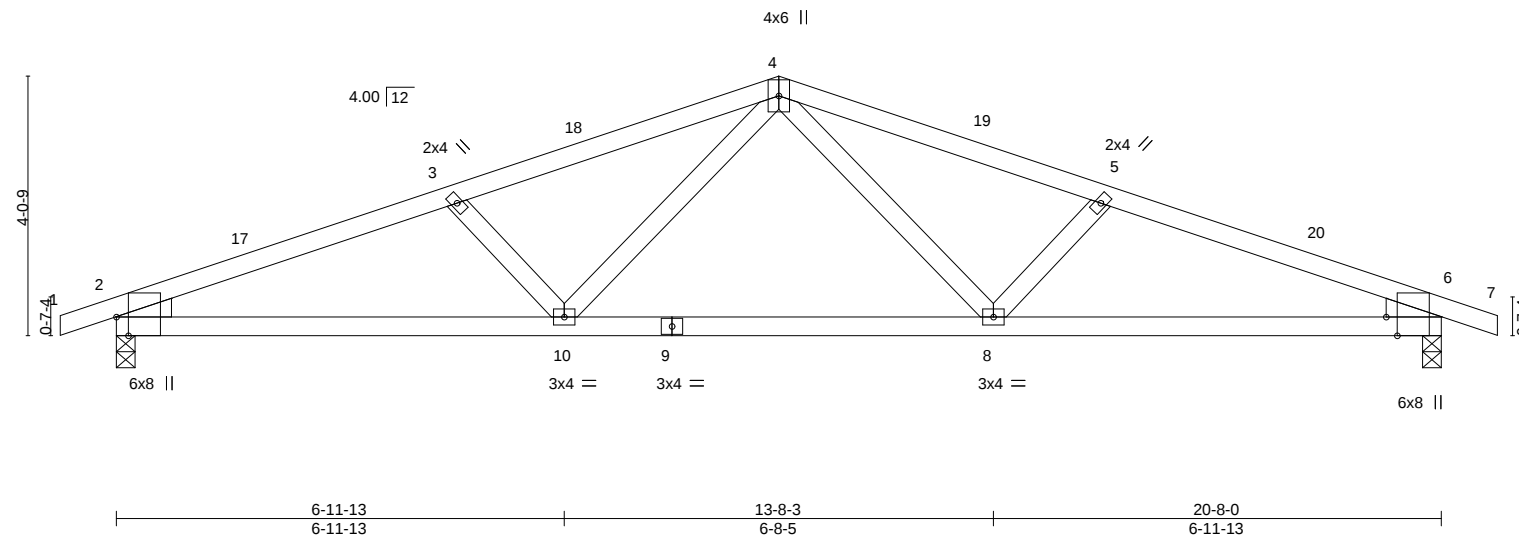
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:12 2021 Page 1

ID:eM_cJZPAsoZQ0d5HPdYuvizuR7k-?lOPYjlzB6XCXtqNu4FLjeaptVnArtReRHrkeHz7yt5

-0-10-8	5-3-12	10-4-0	15-4-4	20-8-0	21-6-8
0-10-8	5-3-12	5-0-4	5-0-4	5-3-12	0-10-8

Scale = 1:35.9



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 0.36	Vert(LL)	-0.12 8-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.57	Vert(CT)	-0.23 8-10	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.05 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 69 lb	FT = 20%

LUMBER-

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

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-66(LC 13)
Max Uplift 2=-211(LC 8), 6=-211(LC 9)
Max Grav 2=991(LC 1), 6=991(LC 1)

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

TOP CHORD 2-3=-1944/484, 3-4=-1733/443, 4-5=-1733/443, 5-6=-1944/484
BOT CHORD 2-10=-398/1789, 8-10=-249/1292, 6-8=-401/1789
WEBS 3-10=-332/168, 4-10=-94/497, 4-8=-94/497, 5-8=-332/169

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 10-4-0, Exterior(2R) 10-4-0 to 13-4-0, Interior(1) 13-4-0 to 21-6-8 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
- 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=211, 6=211.
- This truss 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.



June 10, 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/hawthorne ridge #127/MO
2826819	C3	ROOF SPECIAL STRUCTU	1	1	146505635

Builders FirstSource (Valley Center),

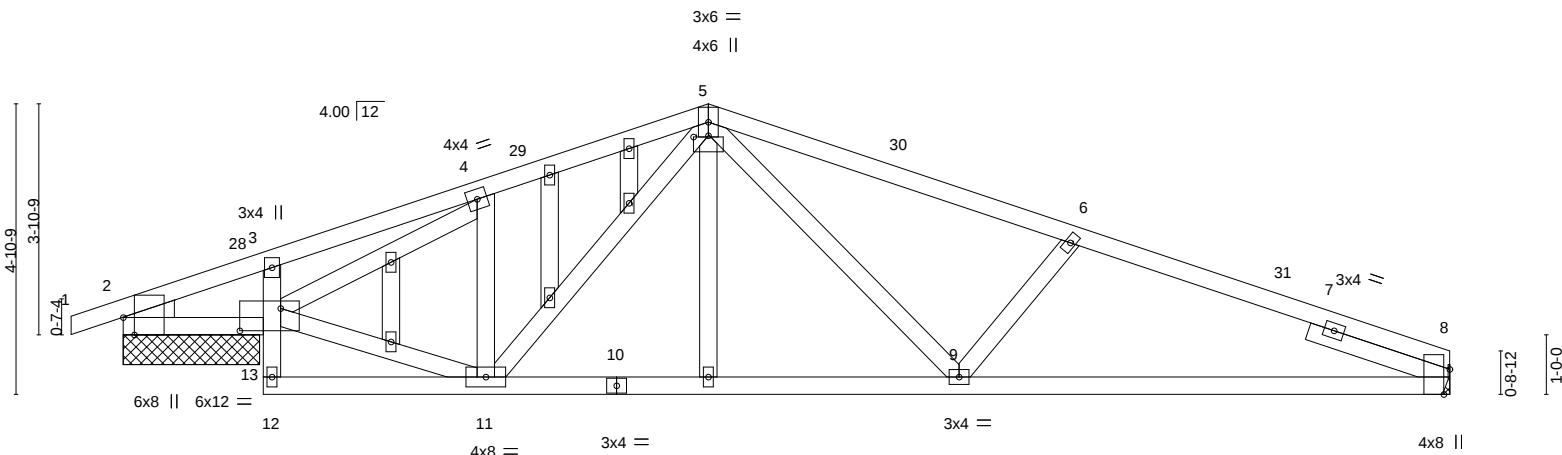
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:13 2021 Page 1

ID: eM_cJZPA0ZQ0d5HPdYuv7k-Tyol3mbyQf391PZRnmaGs6yKu3laHwngxbHAjz7yt4

0-10-8	2-4-4	6-1-2	9-10-0	15-11-0	22-3-8
0-10-8	2-4-4	3-8-14	3-8-14	6-1-0	6-4-8

Scale = 1:38.7



	2-4-4	6-1-2	14-0-9	22-3-8	22-3-9
	2-4-4	3-8-14	7-11-7	8-2-15	0-0-1

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [5:0-3-0,0-0-4], [8:0-5-1,Edge], [13:0-8-4,0-4-8]

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 0.51	Vert(LL)	-0.11	9-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.26	9-11	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.05	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 98 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
 WEDGE
 Left: 2x4 SPF No.2
 SLIDER Right 2x4 SPF No.2 -t 2-6-0

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 2=2-3-8
 Max Horz 2=-88(LC 13)
 Max Uplift 8=-196(LC 9), 2=-216(LC 8)
 Max Grav 8=1002(LC 1), 2=1066(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2124/487, 3-4=-2135/527, 4-5=-1485/427, 5-6=-1768/454, 6-8=-1982/491
 BOT CHORD 2-13=-396/1929, 9-11=-227/1213, 8-9=-405/1838
 WEBS 11-13=-225/1215, 4-13=-178/726, 4-11=-449/176, 5-11=-91/370, 5-9=-123/626,
 6-9=-393/204

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 9-10-0, Exterior(2R) 9-10-0 to 12-10-0, Interior(1) 12-10-0 to 22-3-8 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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) 8=196, 2=216.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	146505636
2826819	CJ1	DIAGONAL HIP GIRDER	2	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:14 2021 Page 1
ID:eM_cJZPA50ZQ0d5HPdYuvztuR7k-y8WAZPnEjnnwBzm?VHpo3f9qlY4JopxbKri9z7yt3

-1-2-14	2-9-3	5-6-6
1-2-14	2-9-3	2-9-3

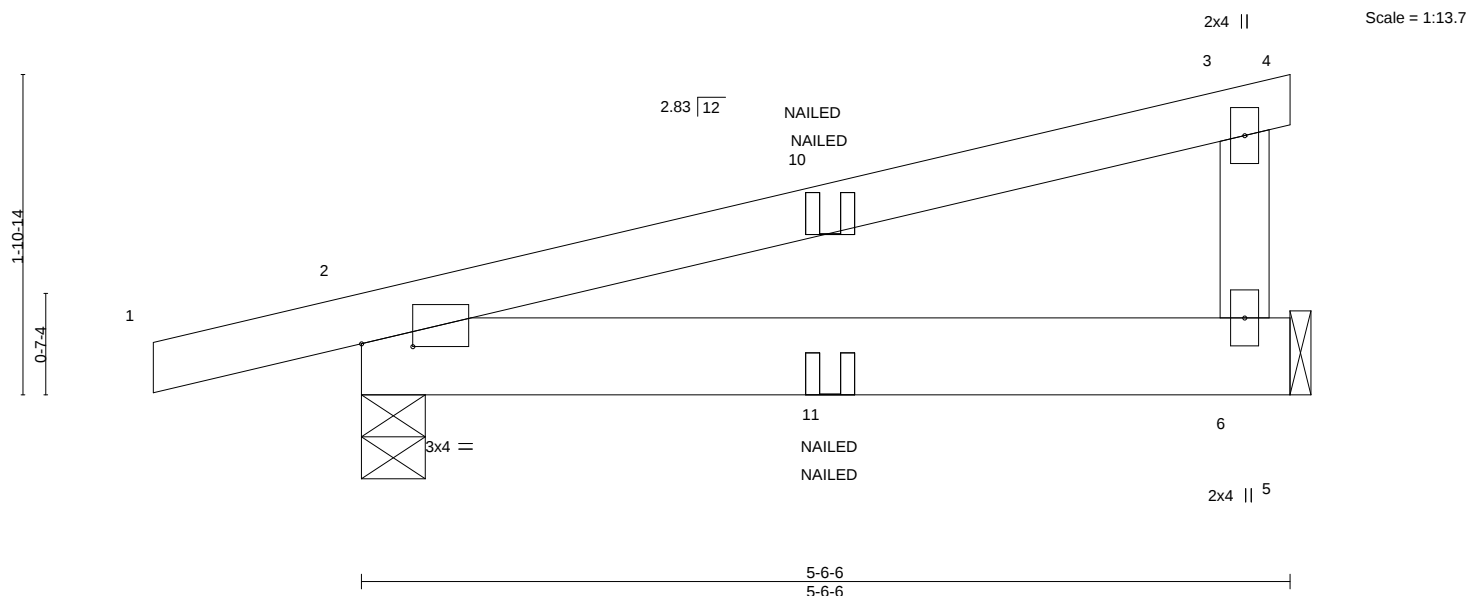


Plate Offsets (X,Y)--		[2:0-3-11,0-0-3]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.33	Vert(LL)	-0.02	6-9	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL 1.15		BC	0.22	Vert(CT)	-0.03	6-9	>999	180			
BCLL	0.0	Rep Stress Incr NO		WB	0.00	Horz(CT)	0.01	2	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 19 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 5-6-6 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 2=0-4-9
Max Horz 2=67(LC 7)
Max Uplift 6=71(LC 8), 2=118(LC 4)
Max Grav 6=246(LC 1), 2=341(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; 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) 6 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: 1-3=-70, 3-4=-20, 5-7=-20
- Concentrated Loads (lb)
Vert: 11=-15(F=-8, B=-8)



June 10, 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 2826819	Truss D1	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	SUMMIT/hawthorne ridge #127/MO 146505637
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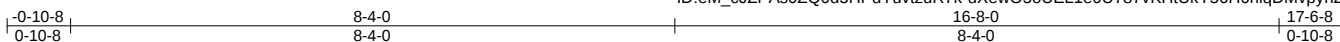
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:16 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvztuR7k-uXewO5oUEL1e0U787vKHtUkY56H6niqDMvpyn2z7yt1

Job Reference (optional)



Scale: 3/8"=1'

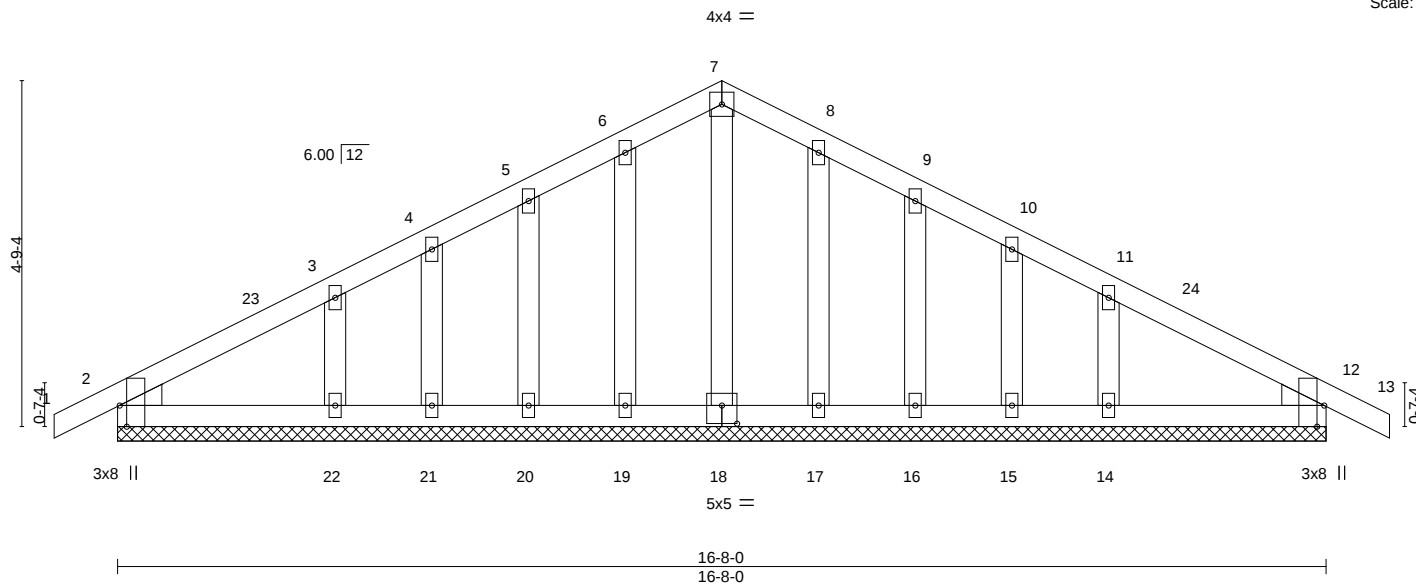


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [12:0-3-8,Edge], [18:0-2-8,0-3-0]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.09	in (loc) l/defl L/d
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(LL) 0.00 13 n/r 120
BCLL 0.0	Rep Stress Incr YES	WB 0.03	Vert(CT) 0.00 13 n/r 120
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.00 12 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 72 lb FT = 20%

LUMBER-

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

WEDGE

Left: 2x4 SPF No.2 , Right: 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 16-8-0.

(lb) - Max Horz 2=-81(LC 17)

Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 20, 21, 22, 17, 16, 15, 14, 12

Max Grav All reactions 250 lb or less at joint(s) 2, 18, 19, 20, 21, 17, 16, 15, 12 except 22=256(LC 25), 14=256(LC 26)

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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 8-4-0, Corner(3R) 8-4-0 to 11-4-0, Exterior(2N) 11-4-0 to 17-6-8 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- 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) 2, 19, 20, 21, 22, 17, 16, 15, 14, 12.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	146505638
2826819	D2	COMMON	1	1		

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:18 2021 Page 1

ID: eM_cJZPA0ZQ0d5HPdYuvztuR7k-qvmhomqkmyHMFoHXEKMIzvrqr1FZpWqDI2rwz7yt?

Job Reference (optional)

0-10-8	4-2-3	8-4-0	12-5-13	16-8-0	17-6-8
0-10-8	4-2-3	4-1-13	4-1-13	4-2-3	0-10-8

Scale: 3/8"=1'

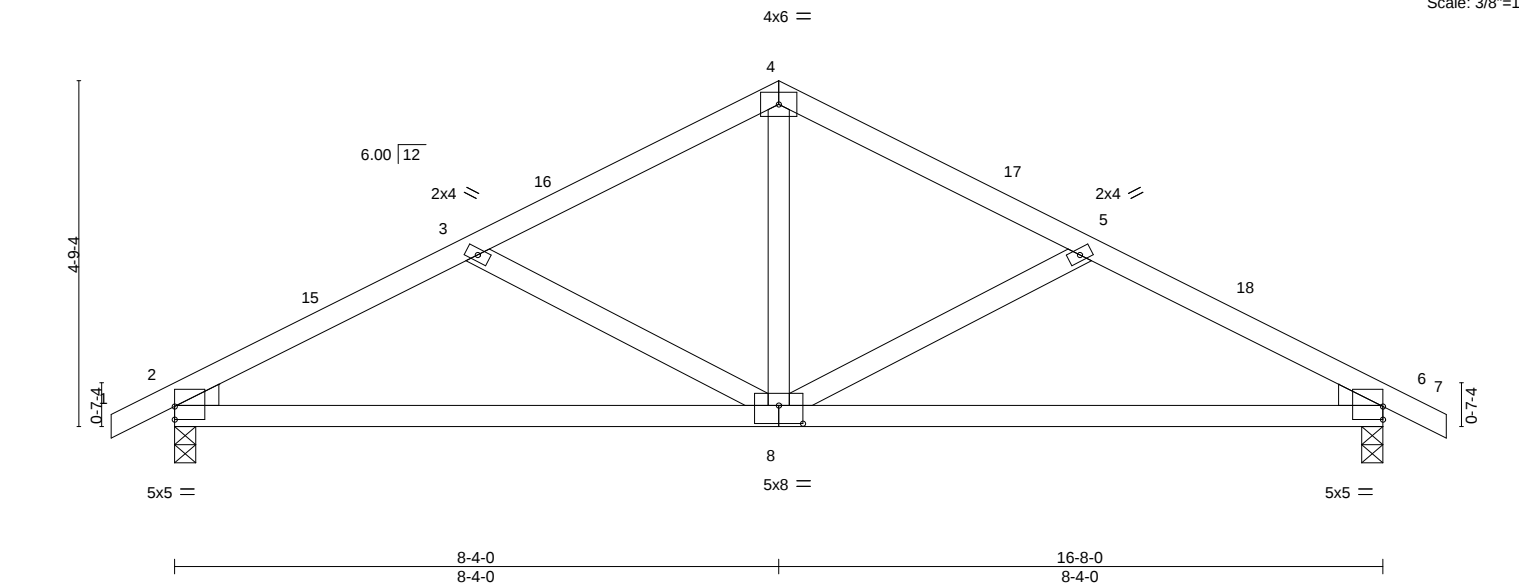


Plate Offsets (X,Y)--		[2:0-0-0,0-2-3], [6:0-0-0,0-2-3], [8:0-4-0,0-3-0]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.07	8-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.15	8-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 60 lb	FT = 20%

LUMBER-

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

Left: 2x4 SP No.3, Right: 2x4 SP No.3

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-81(LC 17)
Max Uplift 2=-143(LC 12), 6=-143(LC 13)
Max Grav 2=811(LC 1), 6=811(LC 1)

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

TOP CHORD 2-3=-1175/353, 3-4=-886/282, 4-5=-886/282, 5-6=-1175/353
BOT CHORD 2-8=-239/985, 6-8=-243/985
WEBS 4-8=-80/442, 5-8=-313/181, 3-8=-313/181

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 8-4-0, Exterior(2R) 8-4-0 to 11-4-0, Interior(1) 11-4-0 to 17-6-8 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
- 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=143, 6=143.
- This truss 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

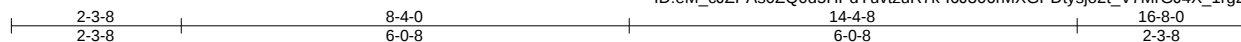
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	D3	Roof Special	5	1	I46505639

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:19 2021 Page 1

ID:eM_cJZPAs0ZQd5HPdYuvztuR7k-l6J306rMXGPDtysjo2t_V7MrGJ4X_1rg2s2cONz7yt_

Job Reference (optional)



7x8 ||

Scale = 1:31.1

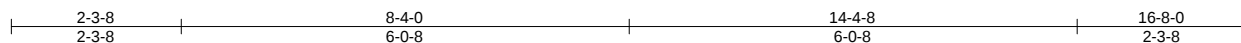
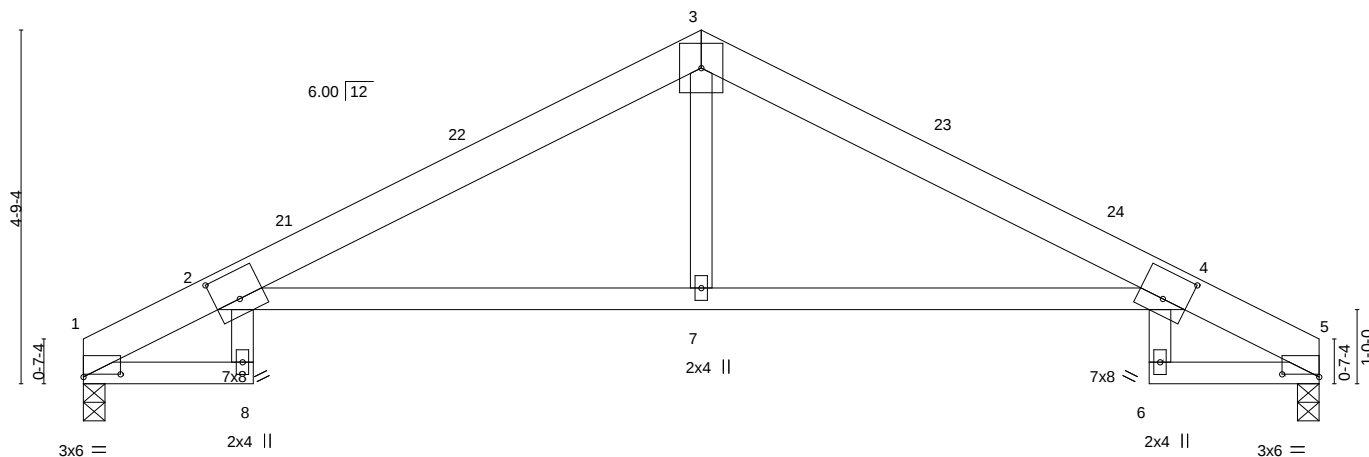


Plate Offsets (X,Y)-- [1:0-6-0,0-0-7], [2:0-4-0,0-4-7], [4:0-4-0,0-4-7], [5:0-6-0,0-0-7]

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 0.99	Vert(LL)	-0.24	7-20	>839	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.45	7-20	>448	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.34	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 59 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 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) 1=0-3-8, 5=0-3-8
Max Horz 1=-73(LC 13)
Max Uplift 1=-119(LC 12), 5=-119(LC 13)
Max Grav 1=760(LC 1), 5=760(LC 1)

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

TOP CHORD 2-10=-302/118, 2-3=-1296/363, 3-4=-1296/366, 4-5=-302/110
BOT CHORD 2-7=-221/1171, 4-7=-221/1171
WEBS 3-7=0/347

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 3-0-0, Interior(1) 3-0-0 to 8-4-0, Exterior(2R) 8-4-0 to 11-4-0, Interior(1) 11-4-0 to 16-8-0 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
- 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) 1=119, 5=119.
- This truss 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.



June 10, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	146505640
2826819	D4	Common	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:20 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvtzuR7k-mltRDSr?lZX4V6RvMlOD2KvDqjTlJtCPHWn9vpz7ysz

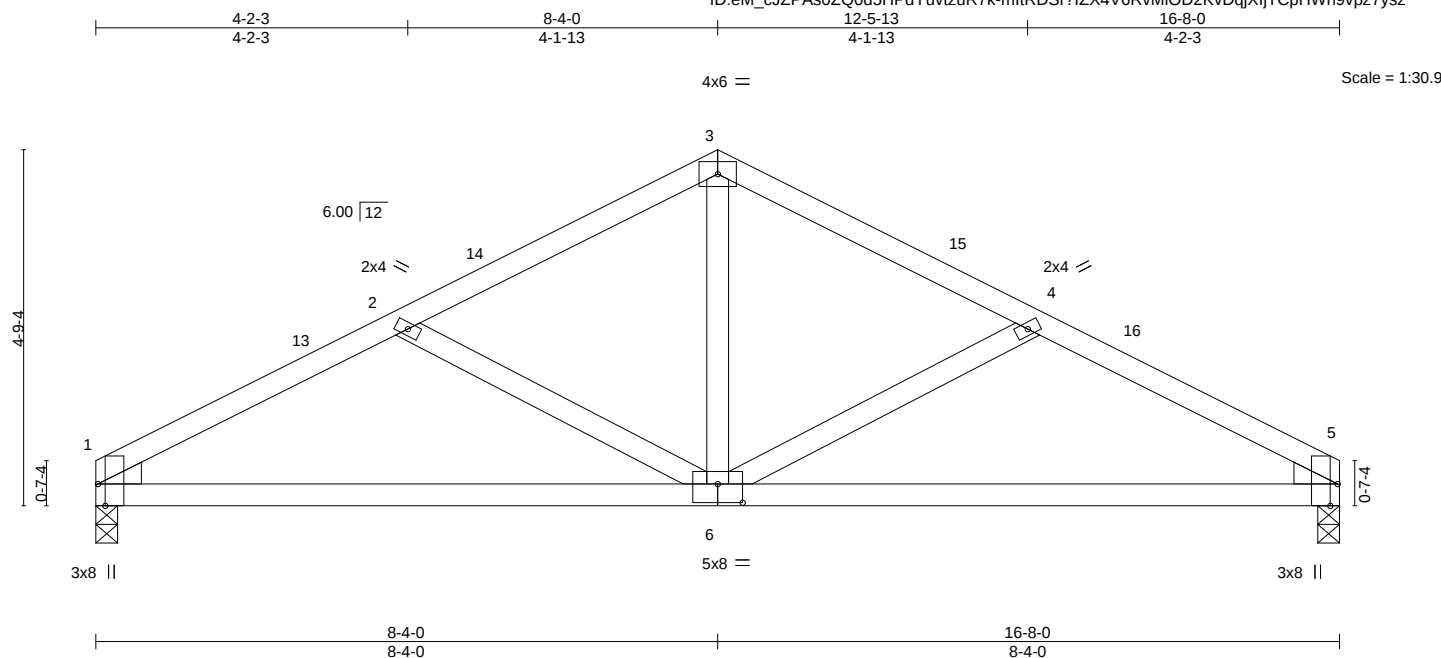


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [5:0-3-8,Edge], [6:0-4-0,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.06 6-9 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.13 6-12 >999 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.02 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 57 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=-73(LC 13)
Max Uplift 1=-123(LC 12), 5=-123(LC 13)
Max Grav 1=750(LC 1), 5=750(LC 1)

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

TOP CHORD 1-2=-1172/363, 2-3=-895/291, 3-4=-895/291, 4-5=-1172/362
BOT CHORD 1-6=-271/1002, 5-6=-262/1002
WEBS 3-6=-88/447, 4-6=-326/177, 2-6=-326/177

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 3-0-0, Interior(1) 3-0-0 to 8-4-0, Exterior(2R) 8-4-0 to 11-4-0, Interior(1) 11-4-0 to 16-8-0 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
- 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) 1=123, 5=123.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10,2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2826819	Truss E1	Truss Type HIP GIRDER	Qty 1	Ply 1	SUMMIT/hawthorne ridge #127/MO 146505641
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:21 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvizuR7k-EURpRosd3tfx6G06vTvSaYSLc7tbSxQzWAXjRFz7ysy

Job Reference (optional)

0-10-8	4-0-0	8-0-0	12-0-0	12-10-8
0-10-8	4-0-0	4-0-0	4-0-0	0-10-8

Scale = 1:22.8

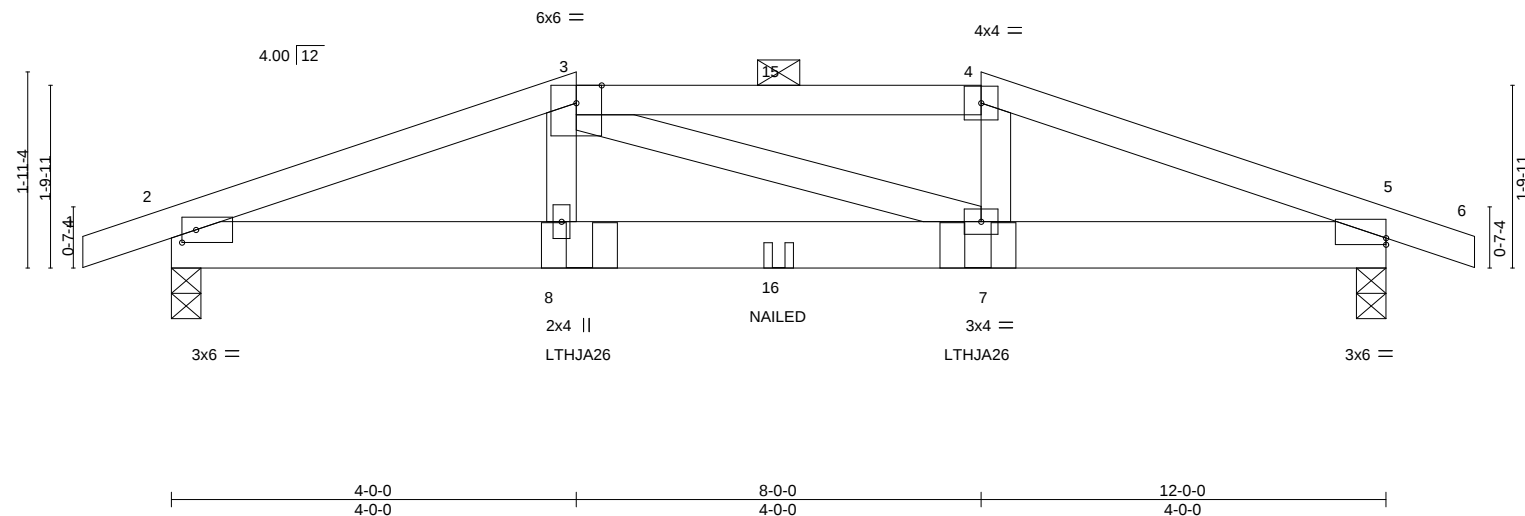


Plate Offsets (X,Y)-- [2:0-1-11,0-1-8], [5:0-0-0,0-0-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.05 7-8 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.09 7-8 >999 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.02 5 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				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 4-3-9 oc purlins, except 2-0-0 oc purlins (4-3-9 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=27(LC 8)
Max Uplift 2=-219(LC 4), 5=-219(LC 5)
Max Grav 2=870(LC 1), 5=870(LC 1)

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

TOP CHORD 2-3=-1760/386, 3-4=-1599/379, 4-5=-1747/383
BOT CHORD 2-8=-342/1638, 7-8=-340/1611, 5-7=-312/1626
WEBS 3-8=-27/286, 4-7=-39/294

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=219, 5=219.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LTHJA26 (LTHJA26 on 1 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 LTHJA26 (LTHJA26 on 1 ply, Left Hand Hip) or equivalent at 7-11-10 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.
- 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



June 10, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	I46505641
2826819	E1	HIP GIRDER	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:21 2021 Page 2
ID:eM_cJZPA50ZQ0d5HPdYuvtzuR7k-EURpRosd3tfx6G06vTvSaYSLc7tbSxQzWAXjRFz7ysy

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 8=-252(B) 7=-252(B) 16=-34(B)

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	146505642
2826819	E2	COMMON	3	1	Job Reference (optional)	

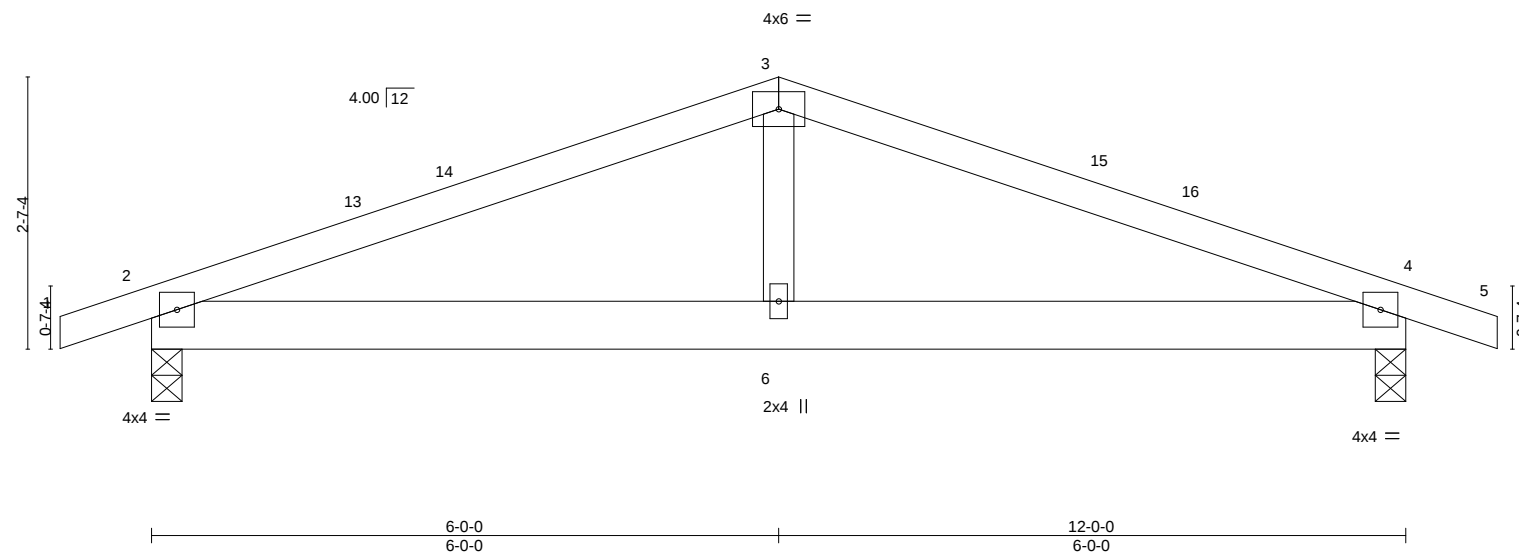
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:22 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvztuR7k-jh?Be8tFqBnokPbITAQh7l_XYXhrBPv6lqGGziz7ysx

-0-10-8	6-0-0	12-0-0	12-10-8
0-10-8	6-0-0	6-0-0	0-10-8

Scale = 1:22.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.02	6-9	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	-0.04	6-9	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 40 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 4=0-3-8
Max Horz 2=40(LC 12)
Max Uplift 2=-138(LC 8), 4=-138(LC 9)
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=-916/366, 3-4=-916/366
BOT CHORD 2-6=-260/810, 4-6=-260/810
WEBS 3-6=0/256

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=138, 4=138.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10, 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

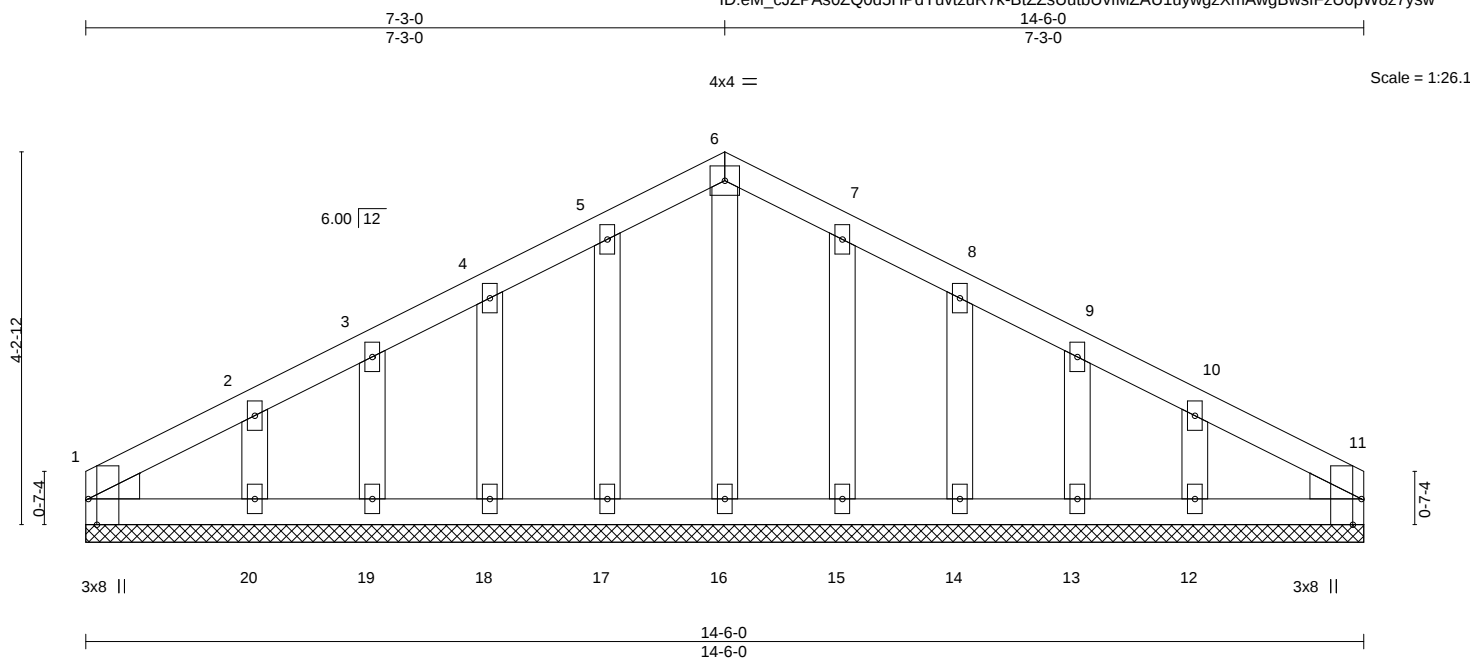


Plate Offsets (X,Y)--		[1:0-3-8,Edge], [11:0-3-8,Edge]						
LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15	TC 0.04	Vert(LL) n/a -	n/a	999	MT20	197/144
TCDL 10.0		Lumber DOL 1.15	BC 0.03	Vert(CT) n/a -	n/a	999		
BCLL 0.0		Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 11	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014	Matrix-S				Weight: 59 lb	FT = 20%

LUMBER-

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

ONS. All bearings 14-6-0.
(lb) - Max Horz 1=69(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 17, 18, 19, 20, 15, 14, 13, 12, 1
Max Grav All reactions 250 lb or less at joint(s) 16, 17, 18, 19, 20, 15, 14, 13, 12, 1, 11

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 3-3-0, Exterior(2N) 3-3-0 to 7-3-0, Corner(3R) 7-3-0 to 10-3-0, Exterior(2N) 10-3-0 to 14-6-0 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 18, 19, 20, 15, 14, 13, 12, 1.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

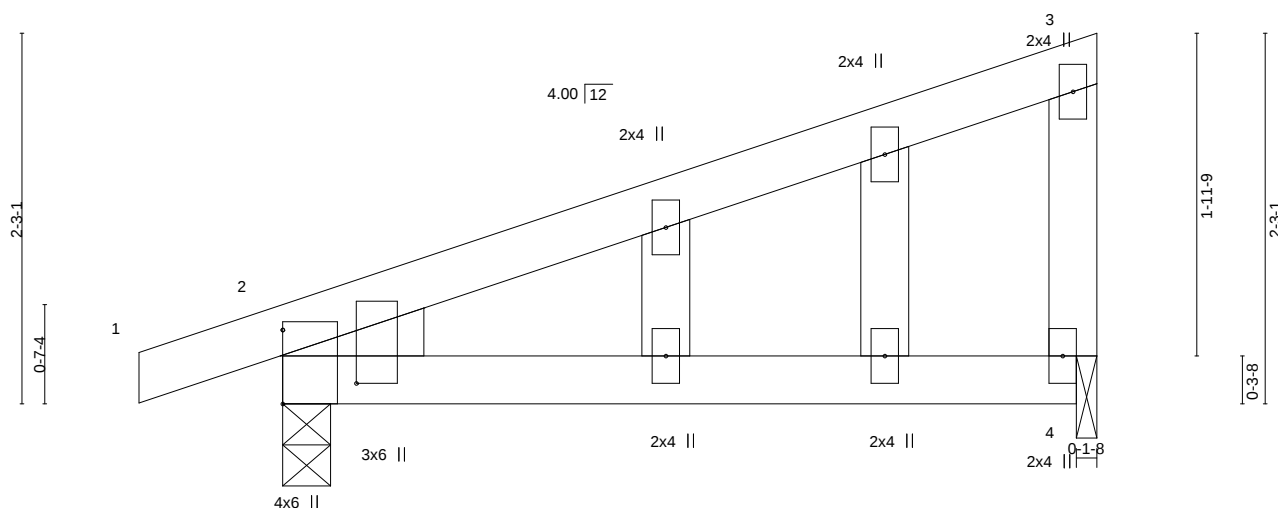
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	I46505644
2826819	M1	MONOPITCH STRUCTURAL	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:24 2021 Page 1

ID:eM_cJZPA0ZQd5HPdYvztuR7k-f37y3quVMo1W_jkhbbT9CA4t_Kz1fJIPC8IN2az7ysv

0-10-8 4-11-8
0-10-8 4-11-8



Scale = 1:14.0

Plate Offsets (X,Y)--		[2:0-3-14,0-5-6]																					
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.				in (loc)		l/defl		L/d		PLATES		GRIP			
TCLL	25.0	Plate Grip DOL		1.15		TC 0.29		Vert(LL)				0.04		4-11		>999		240		MT20		197/144	
TCDL	10.0	Lumber DOL		1.15		BC 0.24		Vert(CT)				-0.06		4-11		>988		180					
BCLL	0.0	Rep Stress Incr		YES		WB 0.00		Horz(CT)				0.01		2		n/a		n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-AS														Weight: 18 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
WEDGE
Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-1-8
Max Horz 2=86(LC 11)
Max Uplift 2=82(LC 8), 4=55(LC 12)
Max Grav 2=283(LC 1), 4=211(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 4-9-12 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable studs spaced at 1-4-0 oc.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Bearing at joint(s) 4 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 at joint(s) 4.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2826819	Truss M2	Truss Type MONOPITCH	Qty 8	Ply 1	SUMMIT/hawthorne ridge #127/MO I46505645
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:25 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvztuR7k-7FhKG9v7769MbtJt8l_OIOc2kkIGOmYYRoVwa0z7ysu

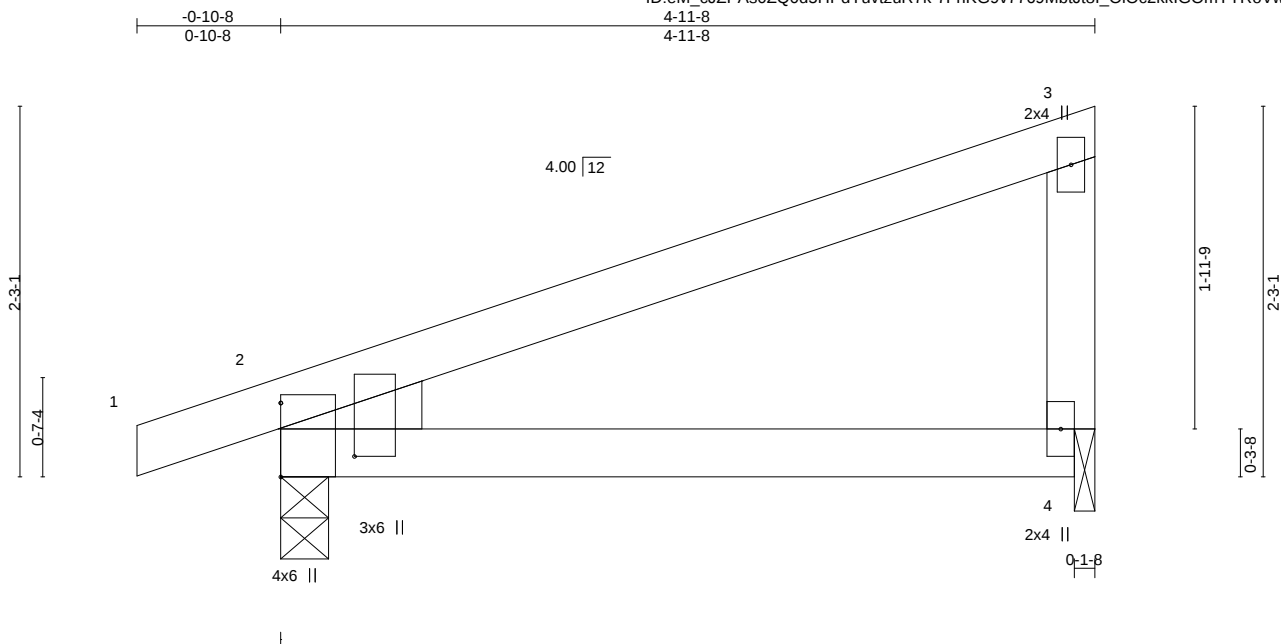


Plate Offsets (X,Y)--		[2:0-3-14,0-5-6]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29
TCDL 10.0	Lumber DOL	1.15	BC 0.24
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.04 4-7 >999 240
			Vert(CT) -0.06 4-7 >988 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 16 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=0-1-8
Max Horz 2=86(LC 11)
Max Uplift 2=82(LC 8), 4=55(LC 12)
Max Grav 2=283(LC 1), 4=211(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 4-9-12 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10, 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



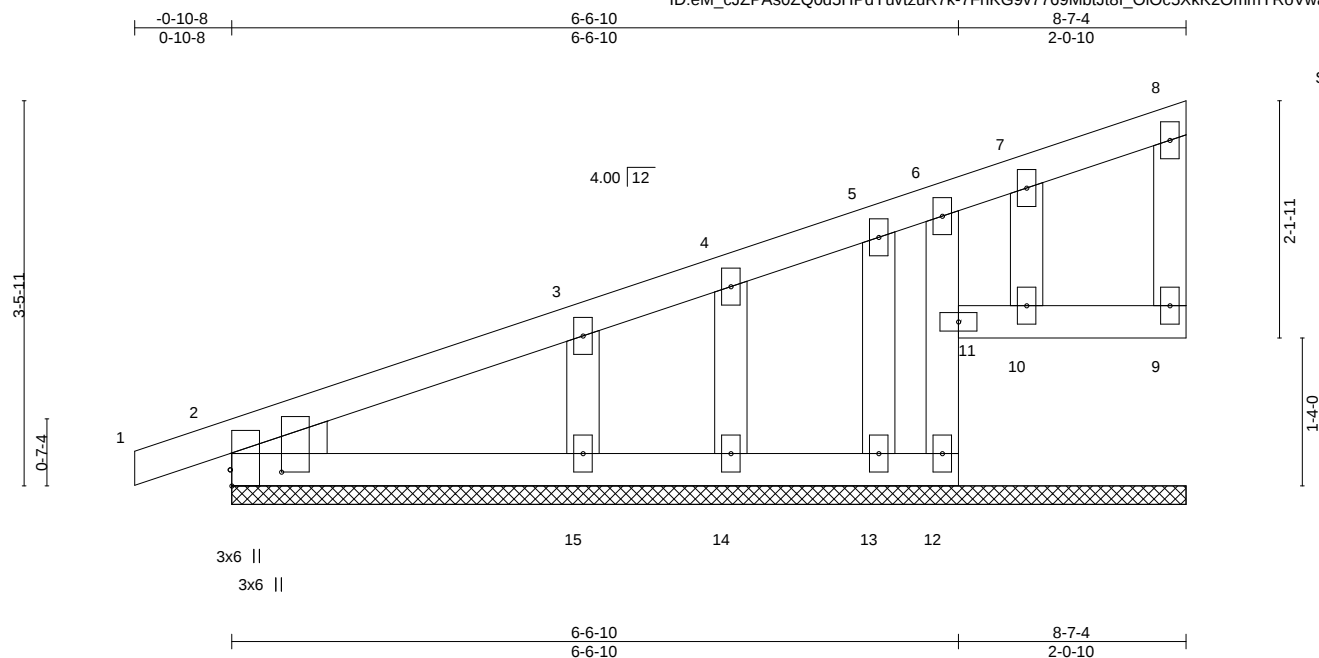
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	I46505646
2826819	M3	GABLE	1	1	Job Reference (optional)	

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

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:25 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvtzR7k-7FhKG9v7769MbtJt8l_OlOc5Xkk2OmmYRoVwa0z7ysu



Scale = 1:20.8

Plate Offsets (X,Y)-- [2:Edge,0-0-3], [2:0-0-4,0-5-9]												
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	0.11	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	-0.00	9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 33 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
 WEDGE
 Left: 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 8-7-4.
 (lb) - Max Horz 2=117(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 9, 12, 11, 10, 13, 14, 2, 15
 Max Grav All reactions 250 lb or less at joint(s) 9, 11, 10, 13, 14, 2 except 15=277(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-278/132
 WEBS 3-15=-210/286

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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 8-5-8 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 12, 11, 10, 13, 14, 2, 15.
- 9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 10, 2.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10,2021

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



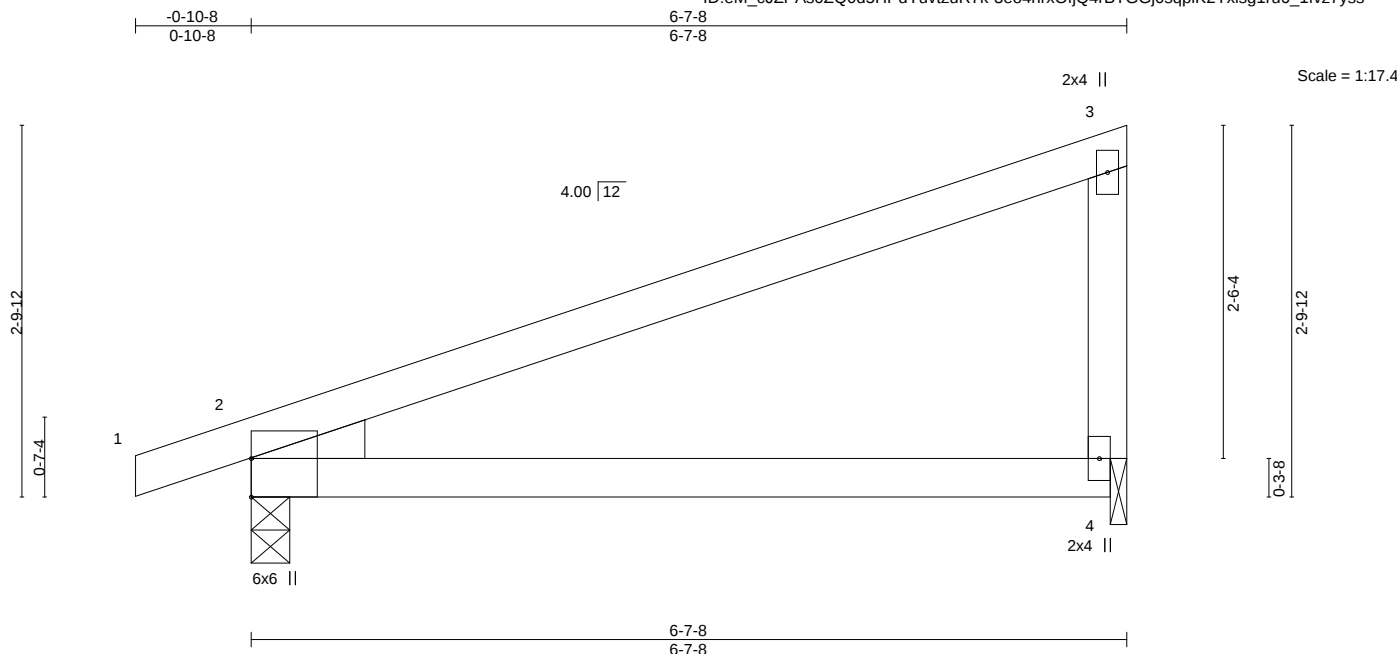
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2826819	Truss M5	Truss Type MONOPITCH	Qty 9	Ply 1	SUMMIT/hawthorne ridge #127/MO I46505648
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:27 2021 Page 1

ID: eM_cJZPA50ZQ0d5HPdYuvztuR7k-3eo4hrxOfjQ4rBTGGj0sqpiK2Yxisg1ru6_1fvz7yss



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	0.11	4-7	>685	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.44	Vert(CT)	-0.19	4-7	>415	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.03	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 20 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=111(LC 11)
Max Uplift 2=97(LC 8), 4=74(LC 12)
Max Grav 2=357(LC 1), 4=287(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 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 10, 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

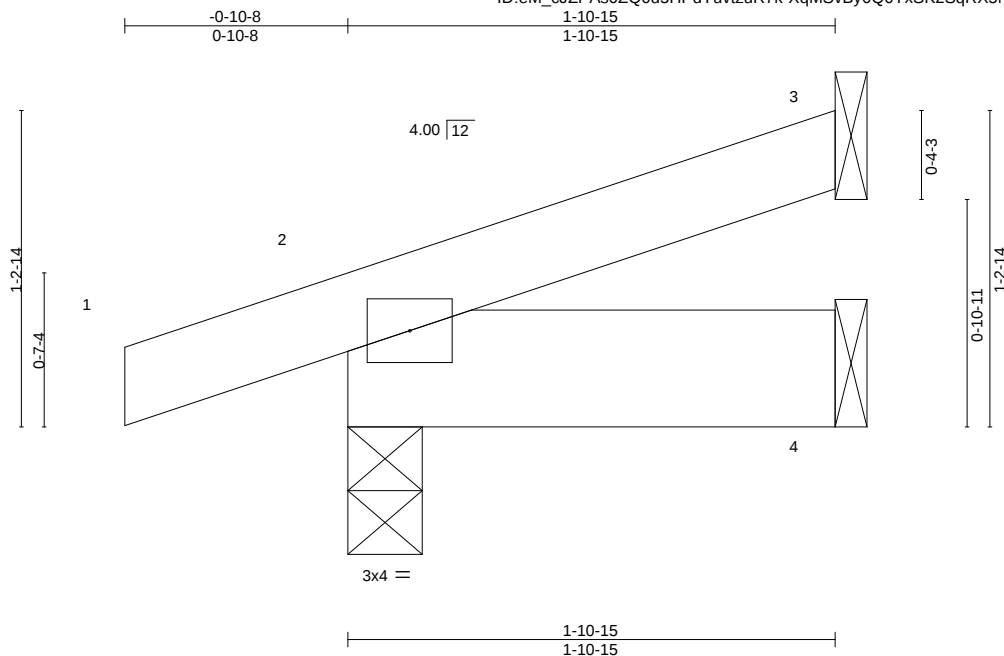
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	I46505649
2826819	M6	JACK-OPEN	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:28 2021 Page 1

ID:eM_cJZPA0ZQd5HPdYvtzuR7k-XqMSvBy0Q0YxSK2SqRX5N0EdjxNTb7H_7mjaBLz7ysr



Scale = 1:9.0

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 0.05	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: 7 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 1-10-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=42(LC 8)
Max Uplift 3=-20(LC 12), 2=-57(LC 8), 4=-2(LC 12)
Max Grav 3=43(LC 1), 2=161(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) 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, 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.



June 10, 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

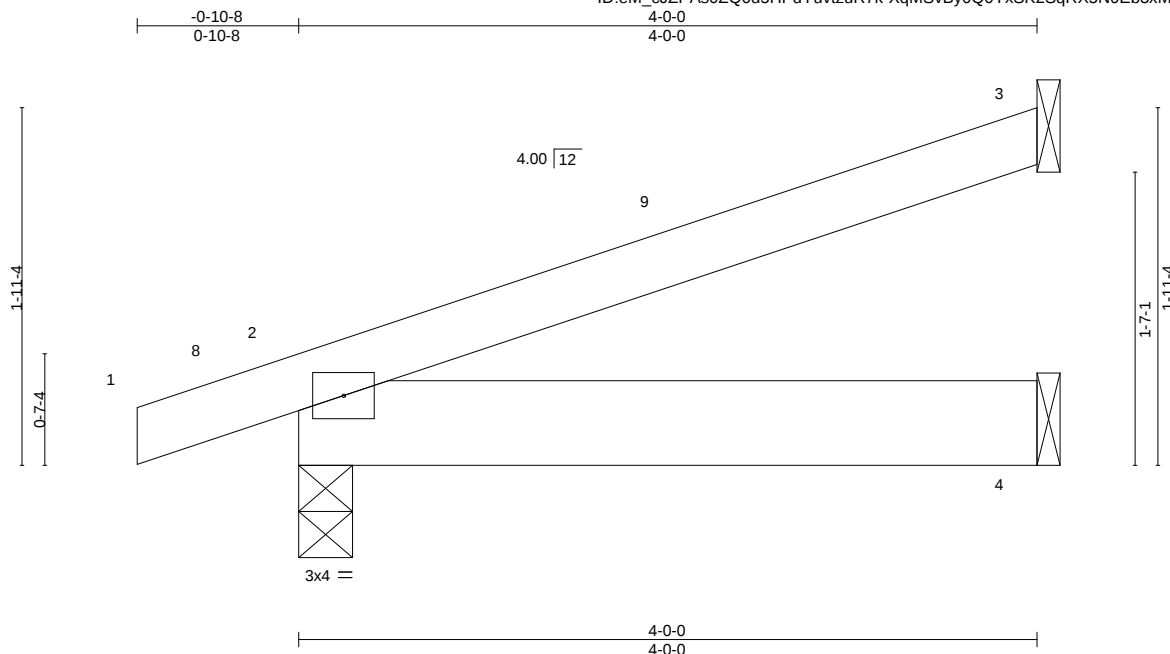
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	I46505650
2826819	M7	JACK-OPEN	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:28 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvtzuR7k-XqMSvBy0Q0YxSK2SqRX5N0Eb3xMhb7H_7mjaBLz7ysr



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 0.16	Vert(LL)	0.01	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-AS						Weight: 13 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 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 3=-298(LC 1), 2=298(LC 1)
Max Uplift 2=-122(LC 8)
Max Grav 2=361(LC 1), 4=77(LC 3)

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

TOP CHORD 2-3=-359/323

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 3-11-4 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) except (jt=lb) 2=122.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	V1	Valley	1	1	I46505651

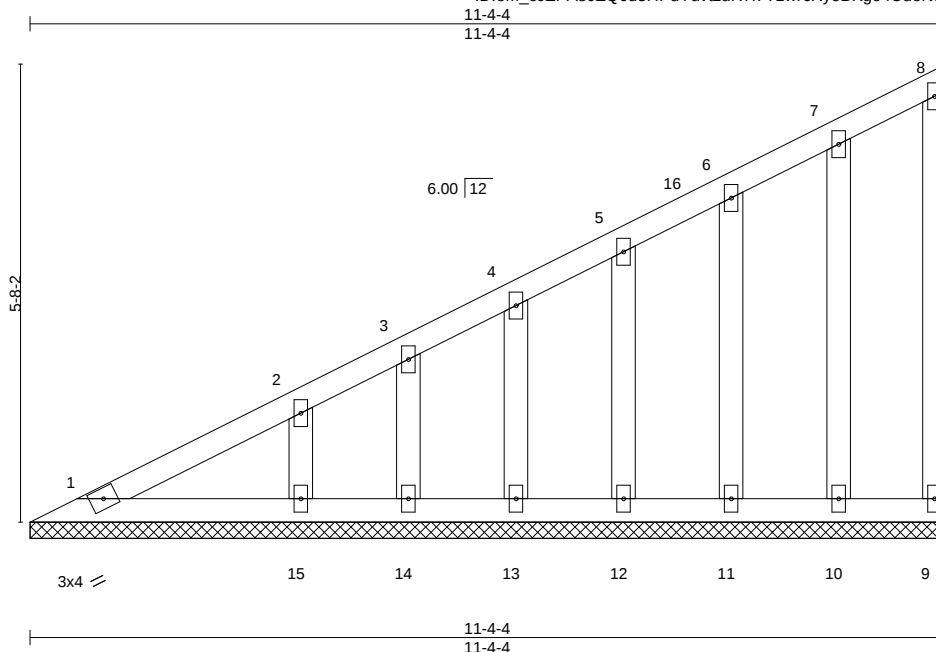
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:29 2021 Page 1

ID:eM_cJZPAs0ZQd5HPdYuvtzuR7k-?1wr6XyeBKgo4UdeN82KvEnmRLiV8MQT8joz7ysq

Job Reference (optional)



Scale = 1:28.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 52 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 11-4-4.

(lb) - Max Horz 1=220(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 9, 10, 11, 12, 13, 14, 15

Max Grav All reactions 250 lb or less at joint(s) 1, 9, 10, 11, 12, 13, 14 except 15=251(LC 1)

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

TOP CHORD 1-2=-418/217, 2-3=-324/174, 3-4=-291/170

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 Corner(3E) 0-7-7 to 3-4-4, Exterior(2N) 3-4-4 to 11-2-8 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable studs spaced at 1-4-0 oc.
- 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) 9, 10, 11, 12, 13, 14, 15.
- 7) Non Standard bearing condition. Review required.
- 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.



June 10, 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

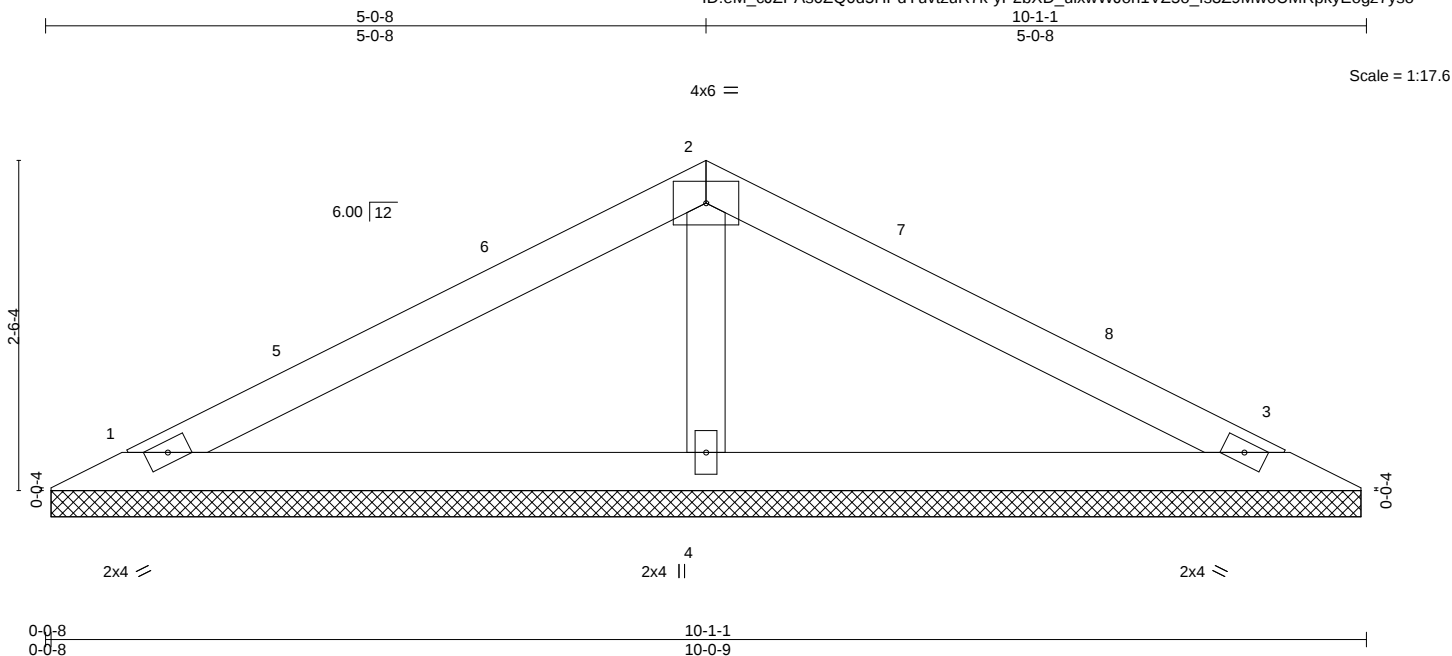
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO	146505652
2826819	V2	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:31 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvzuR7k-yP2bXD_uixwWJon1VZ5o_fs3Z9MwoUMRpkYEogz7yso



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a				
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 25 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" oc purlins.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

REACTIONS.

(size) 1=10'-0"-1, 3=10'-0"-1, 4=10'-0"-1
Max Horz 1=-39(LC 13)
Max Uplift 1=-43(LC 12), 3=-50(LC 13), 4=-46(LC 12)
Max Grav 1=184(LC 25), 3=184(LC 26), 4=432(LC 1)

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

WEBS 2-4=-299/185

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-0-8, Exterior(2R) 5-0-8 to 8-0-8, Interior(1) 8-0-8 to 9-5-8 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
- 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, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	V3	Valley	1	1	I46505653

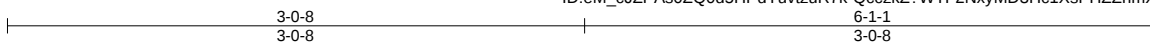
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:32 2021 Page 1

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Job Reference (optional)



Scale = 1:12.1

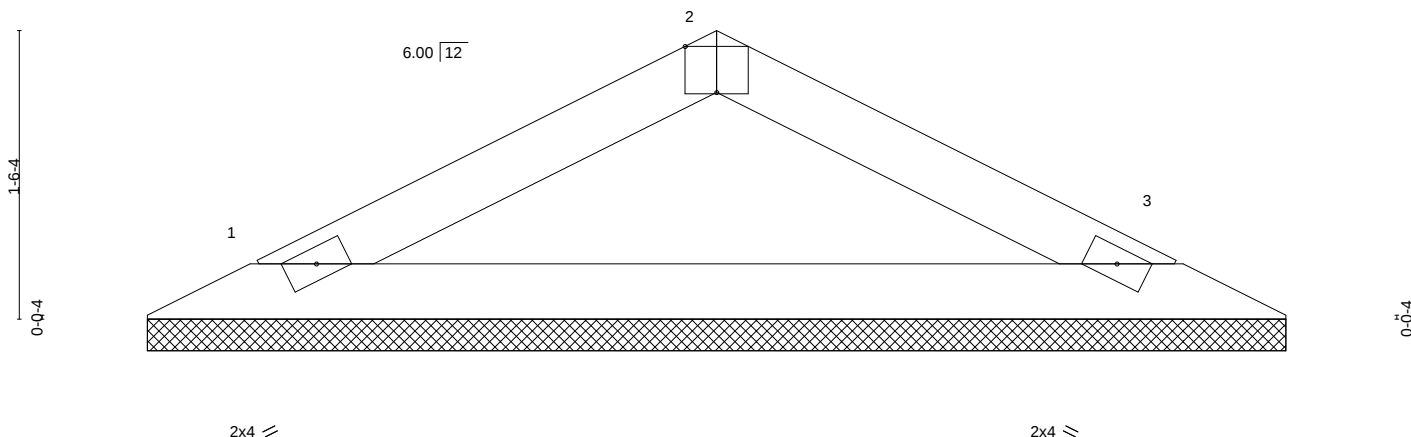


Plate Offsets (X,Y)--	[2:0-2:0,Edge]	6-0-9	6-0-9	6-1-1	0-0-8
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 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 or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=6-0-1, 3=6-0-1
Max Horz 1=21(LC 16)
Max Uplift 1=-36(LC 12), 3=-36(LC 13)
Max Grav 1=217(LC 1), 3=217(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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
- 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, 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 10, 2021

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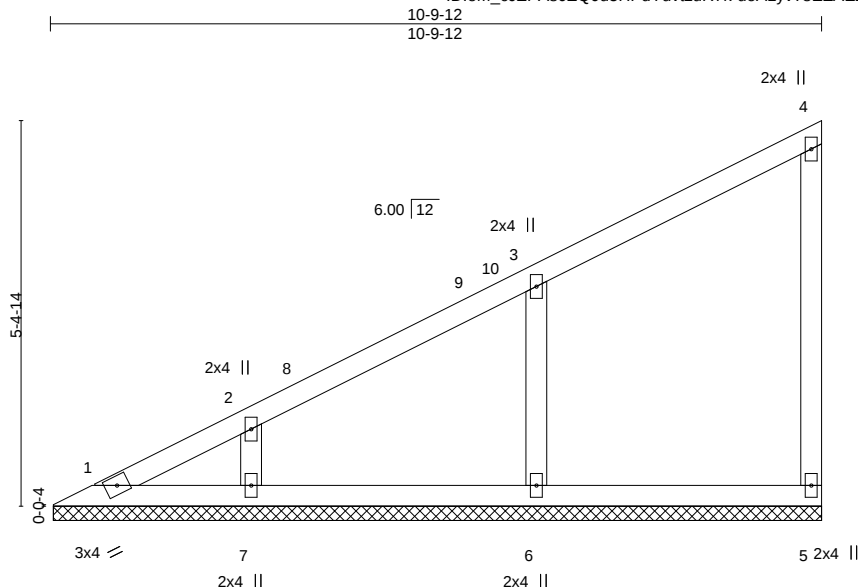
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	V4	Valley	1	1	I46505654
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:33 2021 Page 1

ID: eM_cJZPAS0ZQ0d5HPdYuvztuR7k-uoALyv?8EZA6Z6wPc_7G44xQ?y3EGOakG2RLsZz7ysm



Scale: 3/8"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 35 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 10-9-4.

(lb) - Max Horz 1=209(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=-109(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=396(LC 1), 7=306(LC 1)

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

TOP CHORD 1-2=-312/193

WEBS 3-6=-309/233

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 10-8-0 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) 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) 5, 6 except (jt=lb) 7=109.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	V5	Valley	1	1	I46505655
Job Reference (optional)					

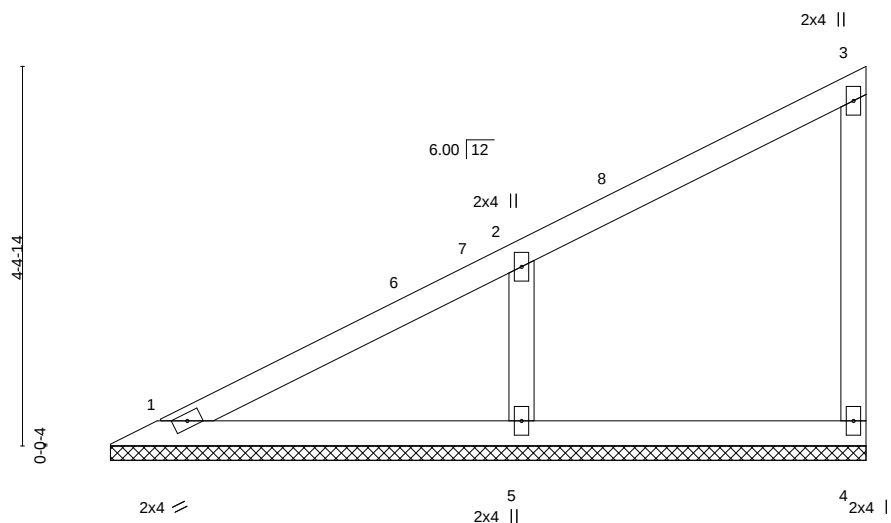
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:33 2021 Page 1

ID: eM_cJZPA50ZQ0d5HPdYuvztuR7k-u0ALyv?8EZAEEZ6wPc_7G44xP7y2pGOkkG2RLsZz7ysm

8-9-12
8-9-12



Scale = 1:26.8

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 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 27 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.

(size) 1=8-9-4, 4=8-9-4, 5=8-9-4
Max Horz 1=168(LC 9)
Max Uplift 4=-32(LC 9), 5=-135(LC 12)
Max Grav 1=146(LC 20), 4=126(LC 1), 5=452(LC 1)

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

TOP CHORD 1-2=-261/170
WEBS 2-5=-352/273

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-8-0 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) 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) 4 except (jt=lb) 5=135.
- 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.



June 10, 2021

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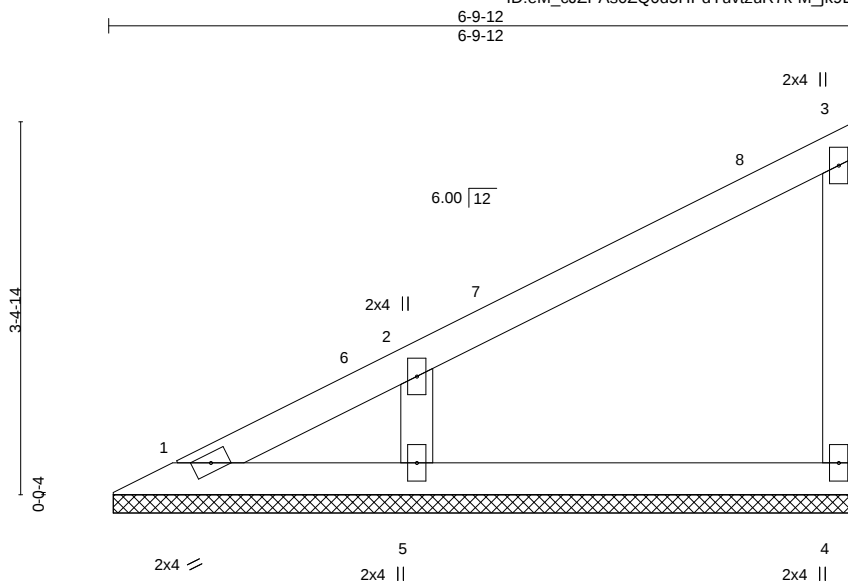
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	V6	Valley	1	1	I46505656

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:34 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvtzur7k-M_jk9E0n?sl5AFVcAheVcHUC8MPd?r2tViAvP?z7ysl



Scale = 1:21.0

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 0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 20 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.

(size) 1=6-9-4, 4=6-9-4, 5=6-9-4
Max Horz 1=126(LC 9)
Max Uplift 4=30(LC 9), 5=122(LC 12)
Max Grav 1=61(LC 20), 4=141(LC 1), 5=362(LC 1)

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

WEBS 2-5=-281/266

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-8-0 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) 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) 4 except (jt=lb) 5=122.
- 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.



June 10, 2021

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Chesterfield, MO 63017

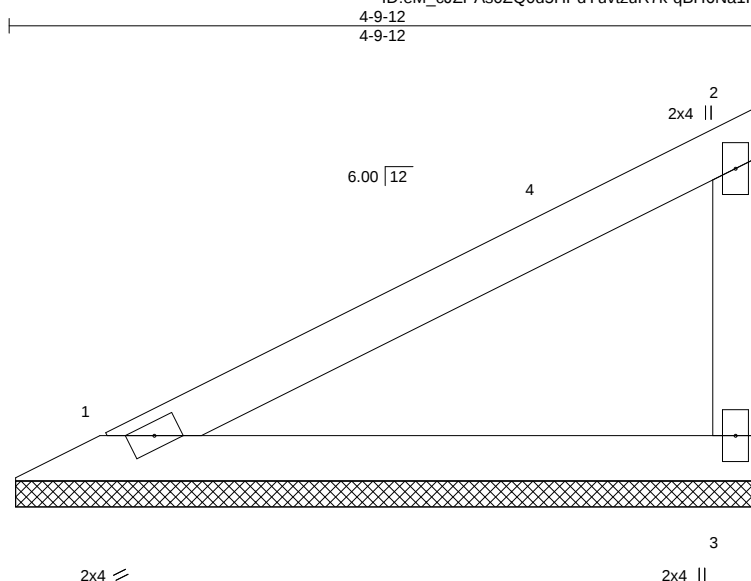
Job 2826819	Truss V7	Truss Type Valley	Qty 1	Ply 1	SUMMIT/hawthorne ridge #127/MO 146505657
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:35 2021 Page 1

ID: eM_cJZPA50ZQ0d5HPdYuvztuR7k-qBH6Na1PmAQyoP4okP9k9V1zmKqkl00kMwSxRz7ysk



Scale = 1:14.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 13 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 4-9-12 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=4-9-4, 3=4-9-4

Max Horz 1=84(LC 9)

Max Uplift 1=-31(LC 12), 3=-52(LC 12)

Max Grav 1=182(LC 1), 3=182(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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-8-0 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) 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, 3.
- 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.



June 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2826819	Truss V8	Truss Type Valley	Qty 1	Ply 1	SUMMIT/hawthorne ridge #127/MO I46505658
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Builders FirstSource (Valley Center),

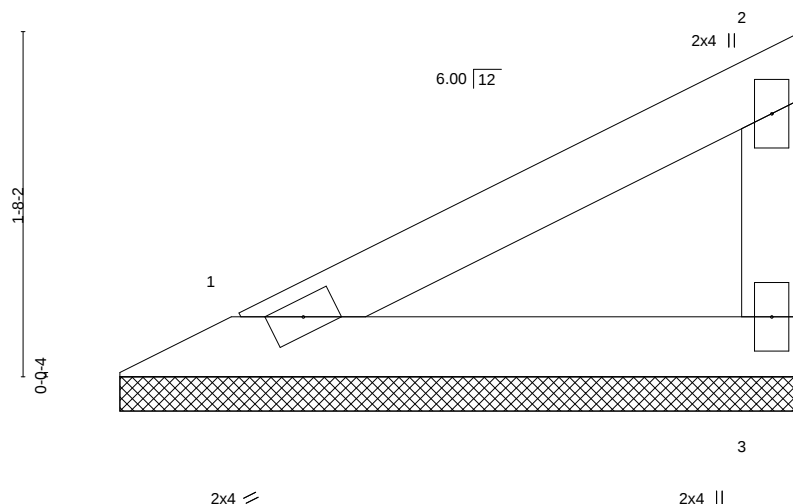
Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:35 2021 Page 1

ID:eM_cJZPA0ZQ0d5HPdYuvtzR7k-qBH6Na1PmAQyoP4okP9k9V1owmmQk100kMwSxRz7ysk

3-4-4

3-4-4



Scale = 1:11.2

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 0.12	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 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 3-4-4 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=3-3-12, 3=3-3-12

Max Horz 1=54(LC 9)

Max Uplift 1=-20(LC 12), 3=-33(LC 12)

Max Grav 1=116(LC 1), 3=116(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) 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, 3.
- 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.



June 10, 2021

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

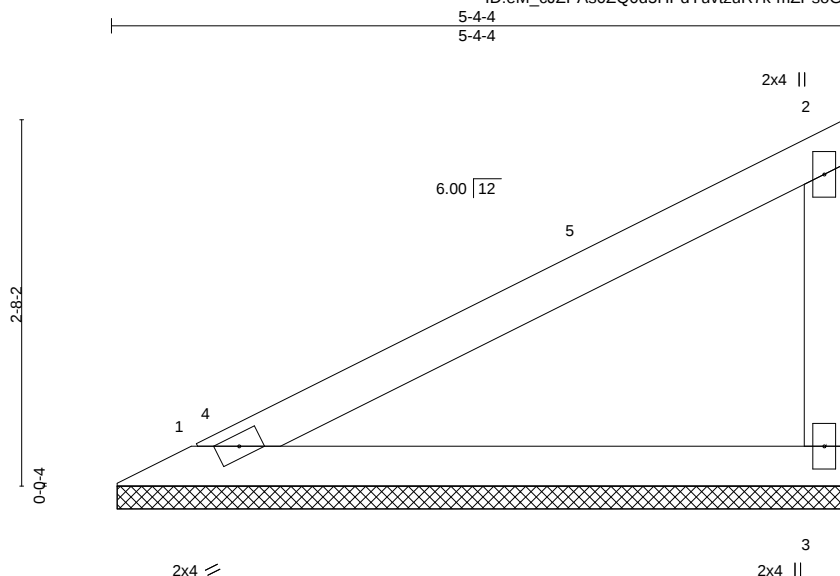
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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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[illegible]

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

REACTIONS. (size) 1=5-3-12, 3=5-3-12
 Max Horz 1=96(LC 9)
 Max Uplift 1=-35(LC 12), 3=-59(LC 12)
 Max Grav 1=206(LC 1), 3=206(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; TC DL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-2-8 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) 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, 3.
- 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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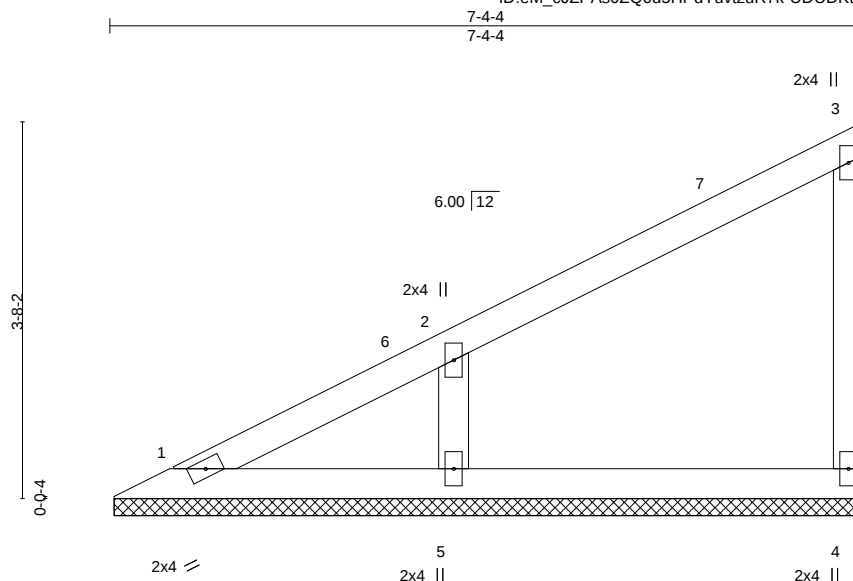
Job	Truss	Truss Type	Qty	Ply	SUMMIT/hawthorne ridge #127/MO
2826819	V10	Valley	1	1	I46505660
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:30 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvztuR7k-UDUDKtZGxeofieCqksaZSRKx?I2h313Ha4ChFEZ7yp



Scale = 1:22.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 22 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.

(size) 1=7-3-12, 4=7-3-12, 5=7-3-12
 Max Horz 1=137(LC 9)
 Max Uplift 4=-30(LC 9), 5=-124(LC 12)
 Max Grav 1=88(LC 20), 4=139(LC 1), 5=379(LC 1)

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

WEBS 2-5=-295/263

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) 0-7-9 to 3-4-4, Interior(1) 3-4-4 to 7-2-8 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) 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) 4 except (jt=lb) 5=124.
- 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.



June 10, 2021

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

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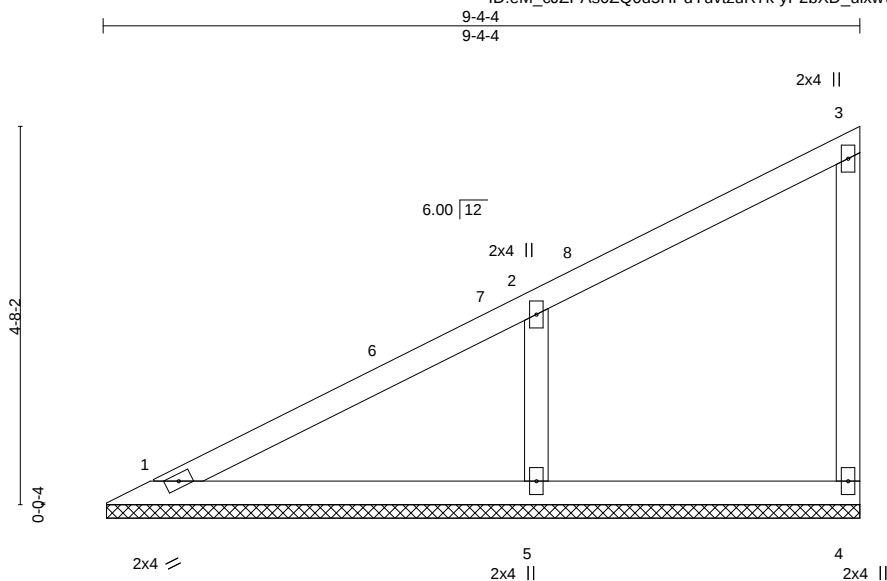
Job 2826819	Truss V11	Truss Type Valley	Qty 1	Ply 1	SUMMIT/hawthorne ridge #127/MO I46505661
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s May 12 2021 MiTek Industries, Inc. Wed Jun 9 16:25:31 2021 Page 1

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Scale = 1:28.5

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)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 29 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.

(size) 1=9-3-12, 4=9-3-12, 5=9-3-12
Max Horz 1=179(LC 9)
Max Uplift 4=-33(LC 9), 5=-140(LC 12)
Max Grav 1=171(LC 1), 4=123(LC 1), 5=479(LC 1)

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

TOP CHORD 1-2=-262/170
WEBS 2-5=-363/271

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) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 9-2-8 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) 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) 4 except (jt=lb) 5=140.
- 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.



June 10, 2021

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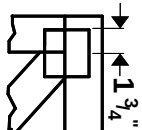
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



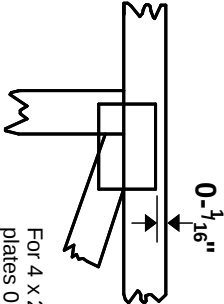
16023 Swingley Ridge Rd
Chesterfield, MO 63017

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 20120 software or upon request.**

PLATE SIZE

4 X 4

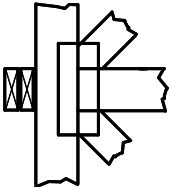
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



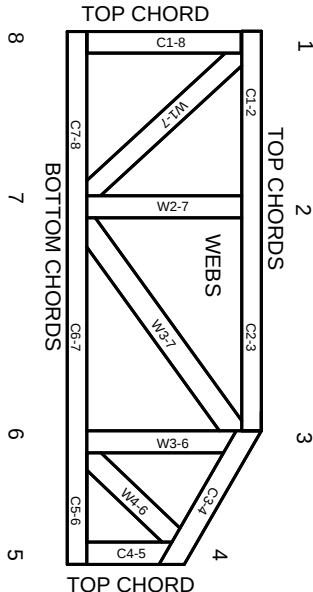
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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