



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/03/2021

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

Re: 2783568
summit/hawthorne ridge#109/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: I46014558 thru I46014616

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

Missouri COA: Engineering 001193



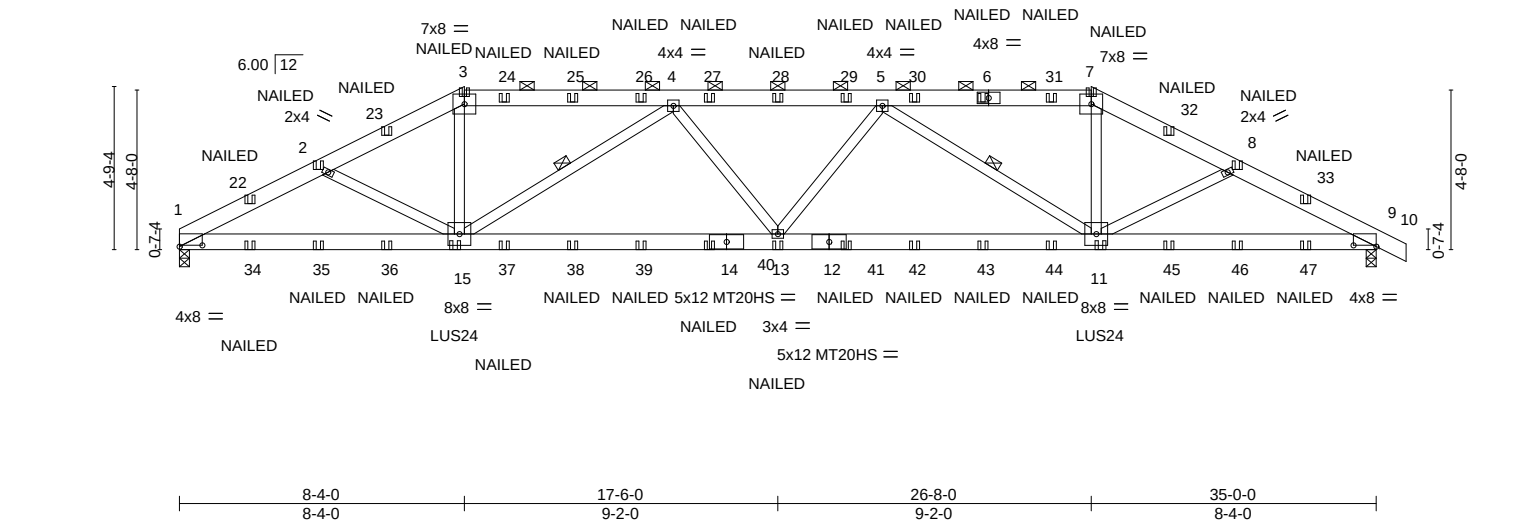
May 10, 2021

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.

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:23:58 2021 Page 1
ID:eM_c1ZPAs0Z00d5HPdY1vvtzuR7k-jh2ji48iux24E1viPQoWShkI6l KIZc0GheNN4ziX82

Scale = 1:67.4



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 0.79	Vert(LL) -0.29 13 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.60	Vert(CT) -0.55 11-13 >766 180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr NO	WB 0.53	Horz(CT) 0.14 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 195 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2
BOT CHORD 2x6 SP 2400F 2.0E *Except*
12-14: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 9=0-3-8
Max Horz 1=-48(LC 23)
Max Uplift 1=-181(LC 5), 9=-186(LC 9)
Max Grav 1=3126(LC 1), 9=3190(LC 1)

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

TOP CHORD 1-2=-5904/423, 2-3=-5612/421, 3-4=-4955/391, 4-5=-6679/491, 5-7=-4954/392,
7-8=-5610/422, 8-9=-5897/424

BOT CHORD 1-15=-377/5193, 13-15=-526/6478, 11-13=-513/6482, 9-11=-339/5184

WEBS 3-15=-65/1940, 4-15=-1901/248, 4-13=0/479, 5-13=0/473, 5-11=-1904/247,
7-11=-64/1935

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding .
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 181 lb uplift at joint 1 and 186 lb uplift at joint 9.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 18-10-8 oc max. starting at 8-0-12 from the left end to 26-11-4 to connect truss(es) to front face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70. 3-7=-70. 7-10=-70. 16-19=-20



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Continued on page 2



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014558
2783568	A1	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:23:58 2021 Page 2
ID:eM_cJZPAs0ZQ0d5HPdYuvtzUR7k-ih2li48iux24E1viPOgWShkl6LKl7c0qGheNN4zlx8?

LOAD CASE(S) Standard

Concentrated Loads (lb)

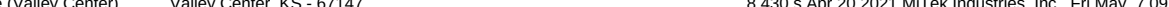
Vert: 6=-92(F) 15=-236(F) 2=-42(F) 13=-81(F) 11=-236(F) 8=-42(F) 22=-94(F) 24=-92(F) 25=-92(F) 26=-92(F) 27=-92(F) 28=-92(F) 29=-92(F) 30=-92(F) 31=-92(F) 33=-94(F) 34=-89(F) 35=-131(F) 36=-184(F) 37=-81(F) 38=-81(F) 39=-81(F) 40=-81(F) 41=-81(F) 42=-81(F) 43=-81(F) 44=-81(F) 45=-184(F) 46=-131(F) 47=-89(F)

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:01 2021 Page 1
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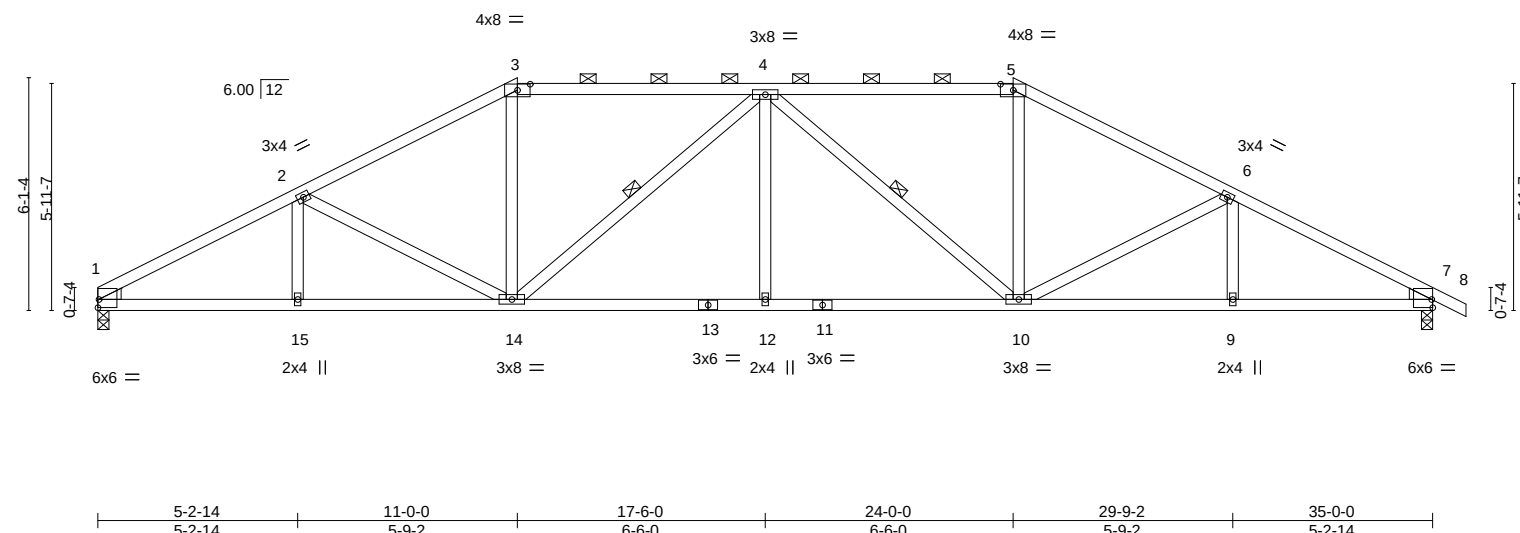


Plate Offsets (X,Y)-- [1:Edge,0-2-9], [3:0-4-0,0-1-15], [5:0-4-0,0-1-15], [7:Edge,0-2-9]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.19	12	>999	240	MT20	197/144	
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.35	12-14	>999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.14	7	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 143 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, except 2-0-0 oc purlins (3-5-15 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 4-14, 4-10

REACTIONS. (size) 1=0-3-8, 7=0-3-8
 Max Horz 1=-61(LC 4)
 Max Uplift 1=-8(LC 8), 7=-15(LC 9)
 Max Gray 1=1574(LC 1), 7=1637(LC 1)

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

TOP CHORD	1-2=-2793/22, 2-3=-2447/44, 3-4=-2114/52, 4-5=-2113/52, 5-6=-2445/44, 6-7=-2785/22
BOT CHORD	1-15=-22/2416, 14-15=-22/2416, 12-14=0/2488, 10-12=0/2488, 9-10=0/2407, 7-9=0/2407
WEBS	2-14=-344/91, 3-14=0/622, 4-14=-639/69, 4-12=0/265, 4-10=-641/69, 5-10=0/620, 6-10=-336/91

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1 and 15 lb uplift at joint 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	146014560
2783568	A3	Hip	1	1		

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

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ID:eM_cJZPA50ZQ0d5HPdYuvtzur7k-aTIGXRBDx9YWjeDUeEkSdXuVWzR3QDQBjcbVrzlx7x

Job Reference (optional)

7-4-5	13-8-0	21-4-0	27-7-11	35-0-0	35-10-8
7-4-5	6-3-11	7-8-0	6-3-11	7-4-5	0-10-8

Scale = 1:60.2

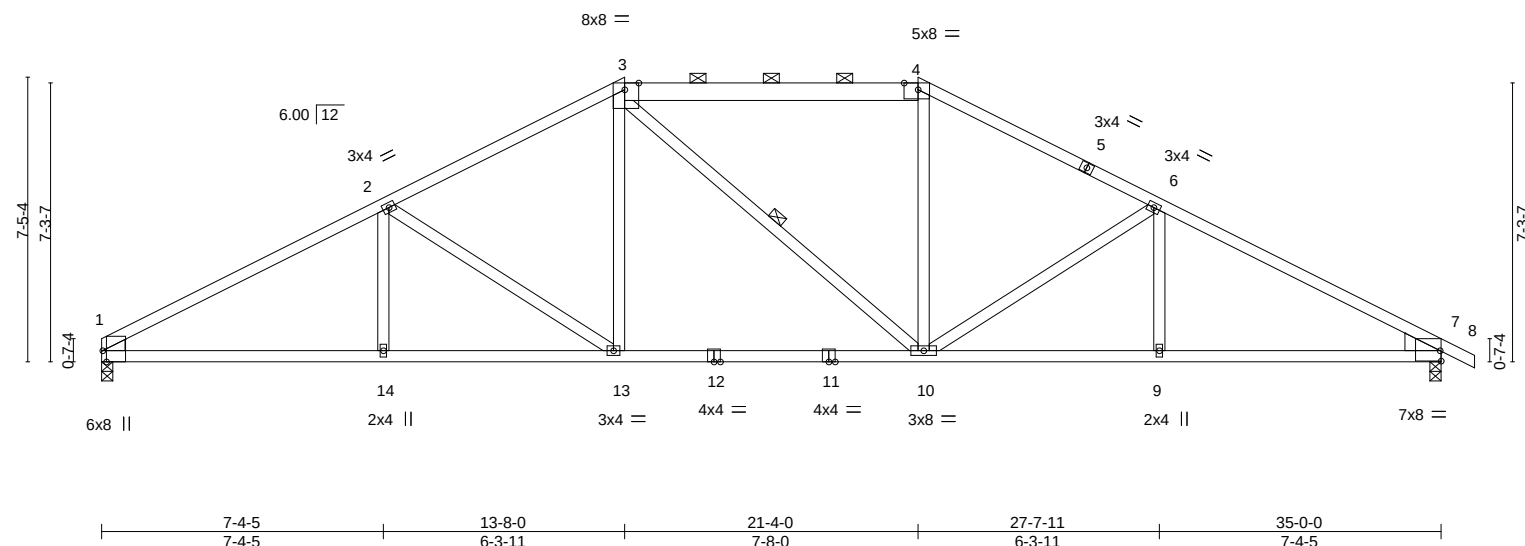


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [3:0-4-6,Edge], [4:0-4-6,Edge], [7:Edge,0-3-4]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.57	Vert(LL)	-0.15	13-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.34	10-13	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.12	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 144 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
3-4: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (4-8-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-10

REACTIONS.

(size) 1=0-3-8, 7=0-3-8
Max Horz 1=-75(LC 4)
Max Uplift 1=-22(LC 8), 7=-29(LC 9)
Max Grav 1=1574(LC 1), 7=1637(LC 1)

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

TOP CHORD 1-2=-2750/49, 2-3=-2221/48, 3-4=-1898/64, 4-6=-2220/48, 6-7=-2741/49
BOT CHORD 1-14=-39/2358, 13-14=-39/2358, 10-13=0/1900, 9-10=0/2348, 7-9=0/2348
WEBS 2-13=-554/105, 3-13=0/482, 4-10=0/482, 6-10=-546/105

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 29 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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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 2783568	Truss A4	Truss Type Hip	Qty 1	Ply 1	summit/hawthorne ridge#109/mo 146014561
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:eM_cJZPA50ZQ0d5HPdYvvtzuR7k-2frelnCrtTgNKoogCxPh9kRf8M_Noq7ZPzL82Hzlx7w

5-9-12	10-10-12	16-4-0	18-8-0	24-1-4	29-2-4	35-0-0	35-10-8
5-9-12	5-1-0	5-5-4	2-4-0	5-5-4	5-1-0	5-9-12	0-10-8

Scale = 1:61.5

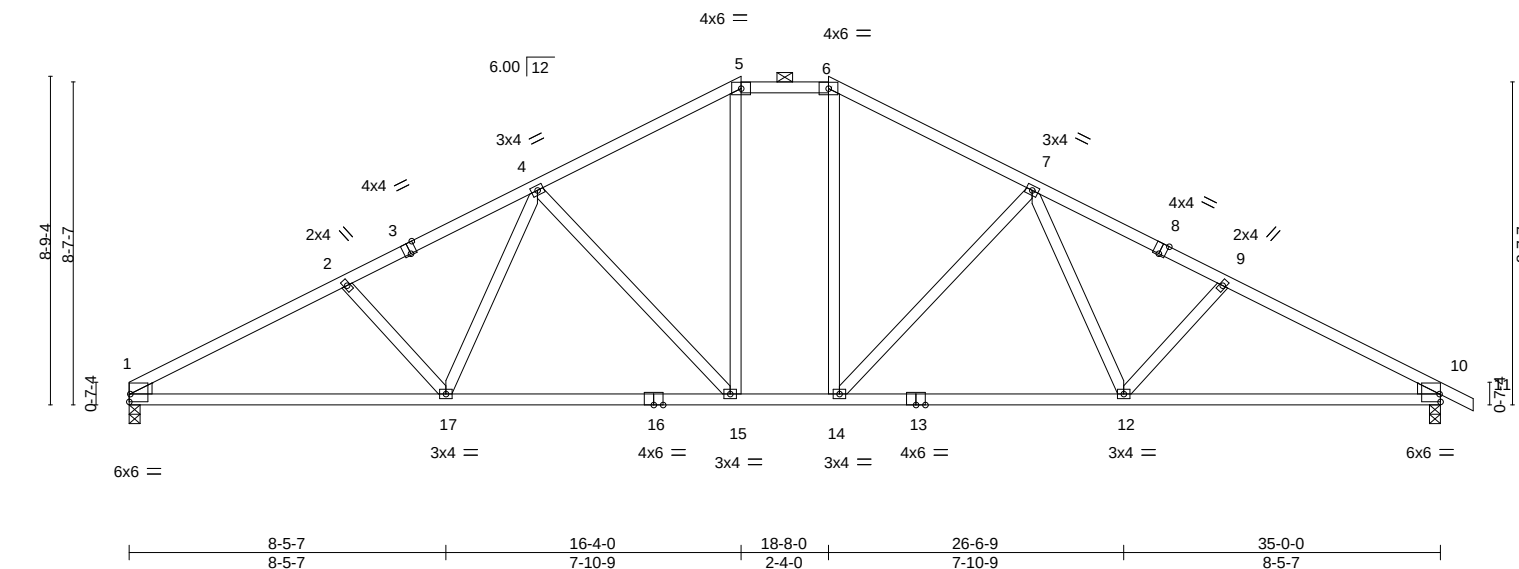


Plate Offsets (X,Y)--		[1:Edge,0-2-8], [3:0-2-0,Edge], [8:0-2-0,Edge], [10:Edge,0-2-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.27	12-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.46	12-14	>908	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.12	10	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 145 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, except
2-0-0 oc purlins (4-5-5 max.): 5-6.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 1=0-3-8, 10=0-3-8
Max Horz 1=-88(LC 4)
Max Uplift 1=-33(LC 8), 10=-40(LC 9)
Max Grav 1=1574(LC 1), 10=1637(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2780/80, 2-4=-2555/85, 4-5=-1941/80, 5-6=-1653/83, 6-7=-1941/80, 7-9=-2550/85,
9-10=-2774/79
BOT CHORD 1-17=-90/2395, 15-17=-28/2080, 14-15=0/1653, 12-14=0/2078, 10-12=-10/2388
WEBS 2-17=-268/91, 4-17=-7/408, 4-15=-682/118, 5-15=-17/558, 6-14=-17/558,
7-14=-679/118, 7-12=-7/402, 9-12=-264/90

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=15ft; Cat. II; Exp C; Enclosed;
MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 1 and 40 lb uplift at joint 10.
6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 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 2783568	Truss A5	Truss Type COMMON	Qty 2	Ply 1	summit/hawthorne ridge#109/mo I46014562
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

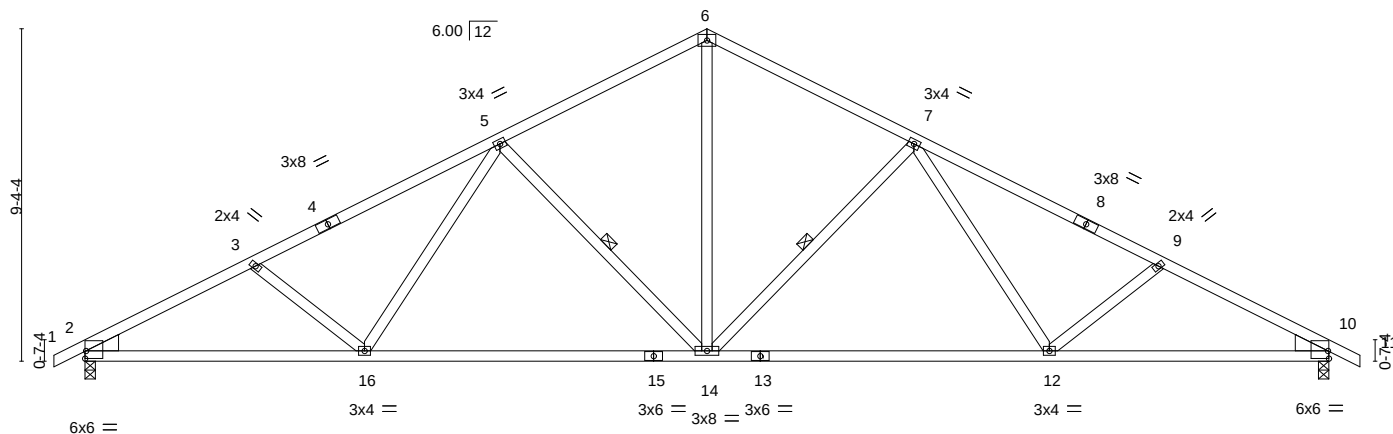
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:05 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvtzur7k-?2zPATD5E4x4a5y2JMI9F9W_MafSGrOstHqF6A2lx7u

0-10-8 4-9-9 11-8-2 17-6-0 23-3-14 30-2-7 35-0-0 35-10-8
0-10-8 4-9-9 6-10-9 5-9-14 5-9-14 6-10-9 4-9-9 0-10-8

4x6 =

Scale = 1:64.8



7-10-6 17-6-0 27-1-10 35-0-0
7-10-6 9-7-10 9-7-10 7-10-6

Plate Offsets (X,Y)--		[2:Edge,0-2-9], [10:Edge,0-2-9]							
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 0.59	Vert(LL)	-0.19 14-16	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.46 14-16	>919	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.12 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 144 lb	FT = 20%

LUMBER-

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

WEDGE
Left: 2x6 SPF No.2 , Right: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 10=0-3-8
Max Horz 2=-94(LC 6)
Max Uplift 2=-45(LC 8), 10=-45(LC 9)
Max Grav 2=1636(LC 1), 10=1636(LC 1)

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

TOP CHORD 2-3=-2820/95, 3-5=-2585/88, 5-6=-1844/97, 6-7=-1844/97, 7-9=-2585/88,
9-10=-2820/95
BOT CHORD 2-16=-121/2451, 14-16=-39/2025, 12-14=0/2025, 10-12=-35/2451
WEBS 6-14=-26/1209, 7-14=-703/130, 7-12=0/434, 9-12=-315/110, 5-14=-703/130, 5-16=0/434,
3-16=-315/109

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2 and 45 lb uplift at joint 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.
- 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.



May 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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	146014563
2783568	A5A	Roof Special	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

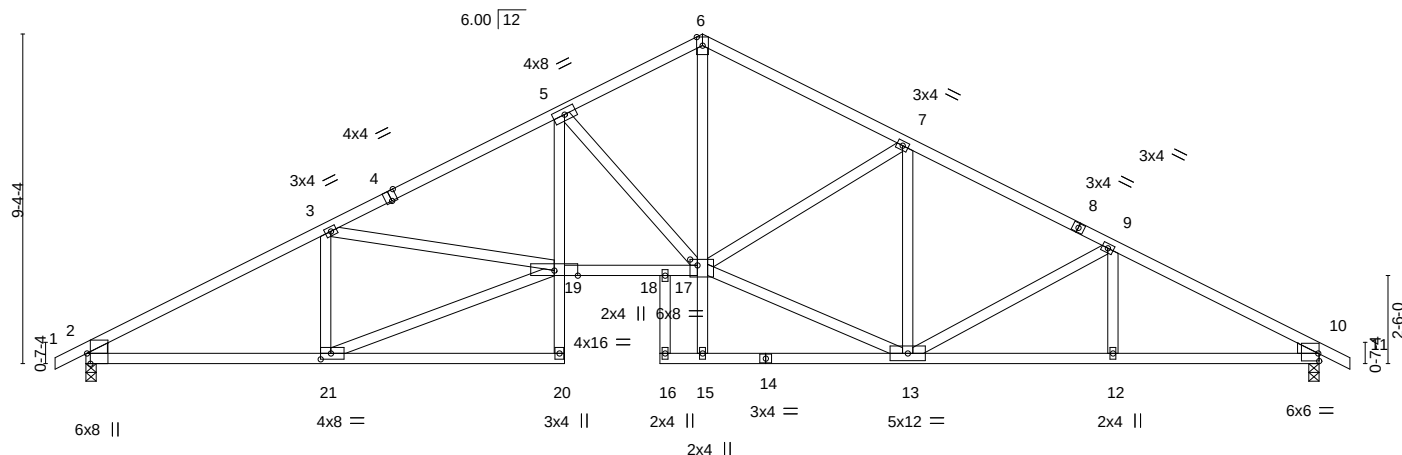
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:06 2021 Page 1

ID:eM_cJZPAS0ZQd5HPdYuvtzuR7k-TExnNpEj?O3xBFWFt3pOnN38Ca_f?AO06xapfczlx7t

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

4x6 ||

Scale = 1:65.4



6-9-11 13-7-0 16-3-8 17-6-0 23-3-14 25-7-9 29-1-13 35-0-0
6-9-11 6-9-5 2-8-8 1-2-8 5-9-14 2-3-11 3-6-3 5-10-3

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:0-2-0,Edge], [10:Edge,0-2-9], [17:0-2-8,0-2-0], [21:0-3-8,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.65	Vert(LL)	-0.25 18-19	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.45 18-19	>930	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.82	Horz(CT)	0.22 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 167 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, 10=0-3-8
Max Horz 2=94(LC 7)
Max Uplift 2=-45(LC 8), 10=-45(LC 9)
Max Grav 2=1636(LC 1), 10=1636(LC 1)

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

TOP CHORD 2-3=-2770/78, 3-5=-3446/94, 5-6=-2450/80, 6-7=-2435/84, 7-9=-2366/83,
9-10=-2777/78
BOT CHORD 2-21=-88/2382, 5-19=-11/1024, 18-19=-11/2983, 17-18=-9/2947, 12-13=-9/2393,
10-12=-9/2393
WEBS 3-21=-827/91, 19-21=-103/2495, 3-19=0/616, 5-17=-1297/110, 6-17=-29/1796,
9-13=-435/78, 7-13=-503/31, 13-17=0/2165

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 45 lb uplift at joint 2 and 45 lb uplift at joint 10.
- 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.



May 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

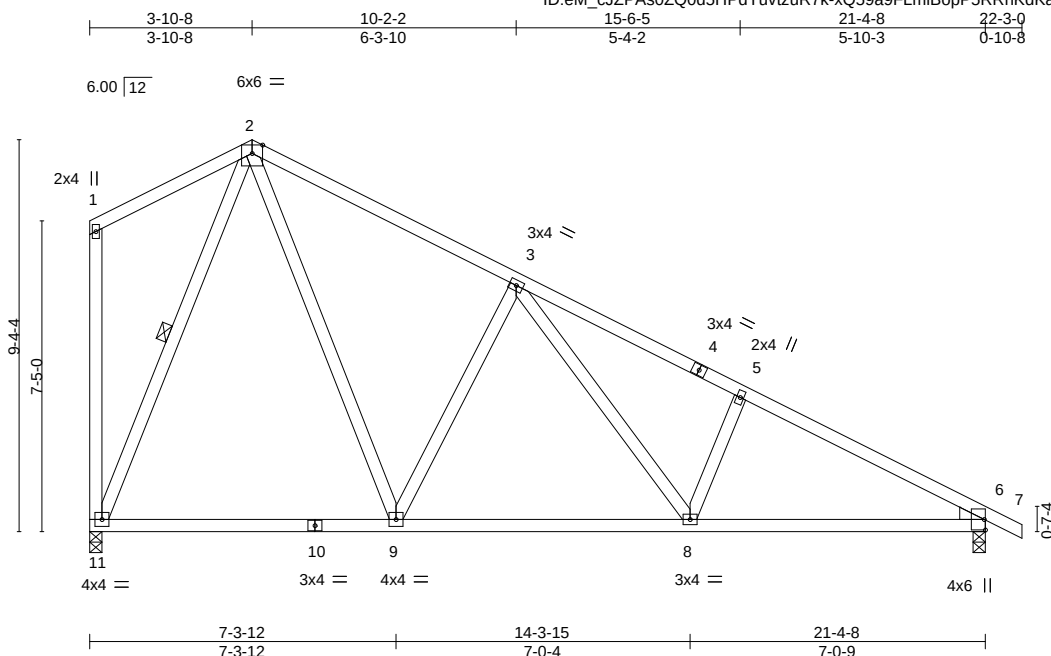
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	A6	Common	2	1	I46014564
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:07 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvztuR7k-xQ59a9FLmiBopP5RRnKdKabOI_RRkir9KaJMB2zIx7s



Scale = 1:55.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.37	Vert(LL)	-0.07	9-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.14	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) 11=0-3-8, 6=0-3-8
 Max Horz 11=-234(LC 6)
 Max Uplift 11=-43(LC 9), 6=-38(LC 9)
 Max Grav 11=954(LC 1), 6=1018(LC 1)

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

TOP CHORD 2-3=-787/103, 3-5=-1395/104, 5-6=-1529/66
 BOT CHORD 9-11=0/357, 8-9=0/888, 6-8=0/1292
 WEBS 2-9=-63/786, 3-9=-643/132, 3-8=-41/507, 5-8=-309/94, 2-11=-848/53

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 43 lb uplift at joint 11 and 38 lb uplift at joint 6.
- 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.



May 10, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	A6A	Roof Special	1	1	I46014565
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:08 2021 Page 1
ID:eM_cJZPA50ZQ0d5HPdYuvtuR7k-PdfXoVGzX?JfRZgd_Urso8TJNneT8slZE3vjVzlx7r

3-10-8 4-2-14 7-4-0 14-4-1 21-4-8 22-3-0
3-10-8 0-4-6 3-1-2 7-0-1 7-0-7 0-10-8

Scale = 1:55.0

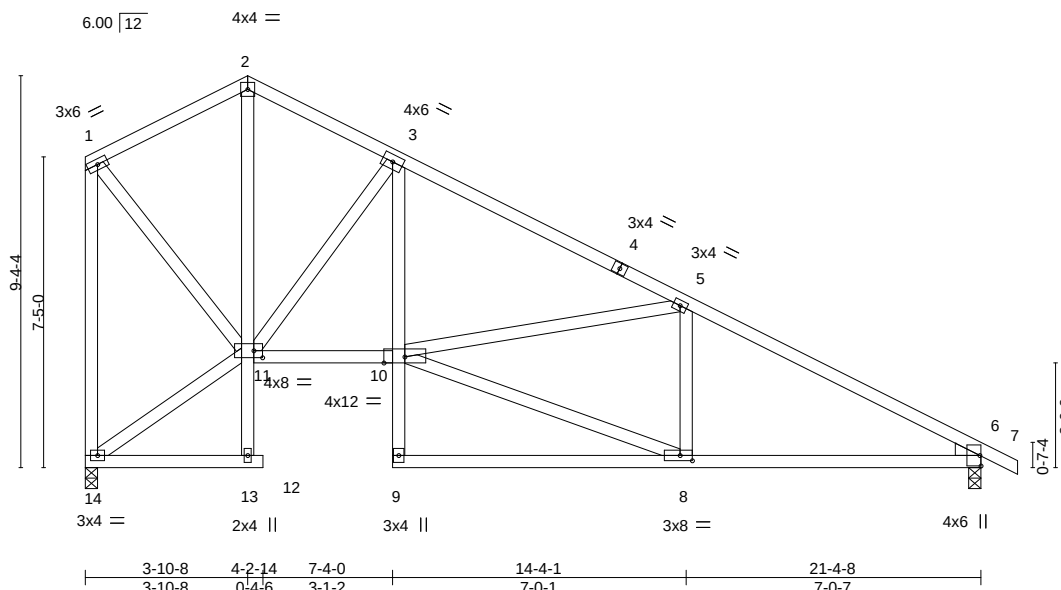


Plate Offsets (X,Y)--		[8:0-3-8,0-1-8], [11:0-2-8,0-2-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.74		Vert(LL)	-0.07 8-9	>999	240	MT20	197/144
TCDL 10.0		Lumber DOL	1.15	BC 0.44		Vert(CT)	-0.15 8-9	>999	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.57		Horz(CT)	0.06 6	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS						Weight: 117 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=0-3-8
Max Horz 14=-234(LC 6)
Max Uplift 6=-37(LC 9), 14=-42(LC 9)
Max Grav 6=1019(LC 1), 14=958(LC 1)

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

TOP CHORD 1-2=-579/34, 2-3=-601/24, 3-5=-1267/0, 5-6=-1511/63, 1-14=-916/0
BOT CHORD 10-11=0/1023, 3-10=0/642, 6-8=0/1267
WEBS 3-11=-929/76, 8-10=0/1325, 5-10=-257/138, 5-8=-330/52, 2-11=-5/295, 1-11=0/725

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 37 lb uplift at joint 6 and 42 lb uplift at joint 14.
- This truss 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.



May 10, 2021

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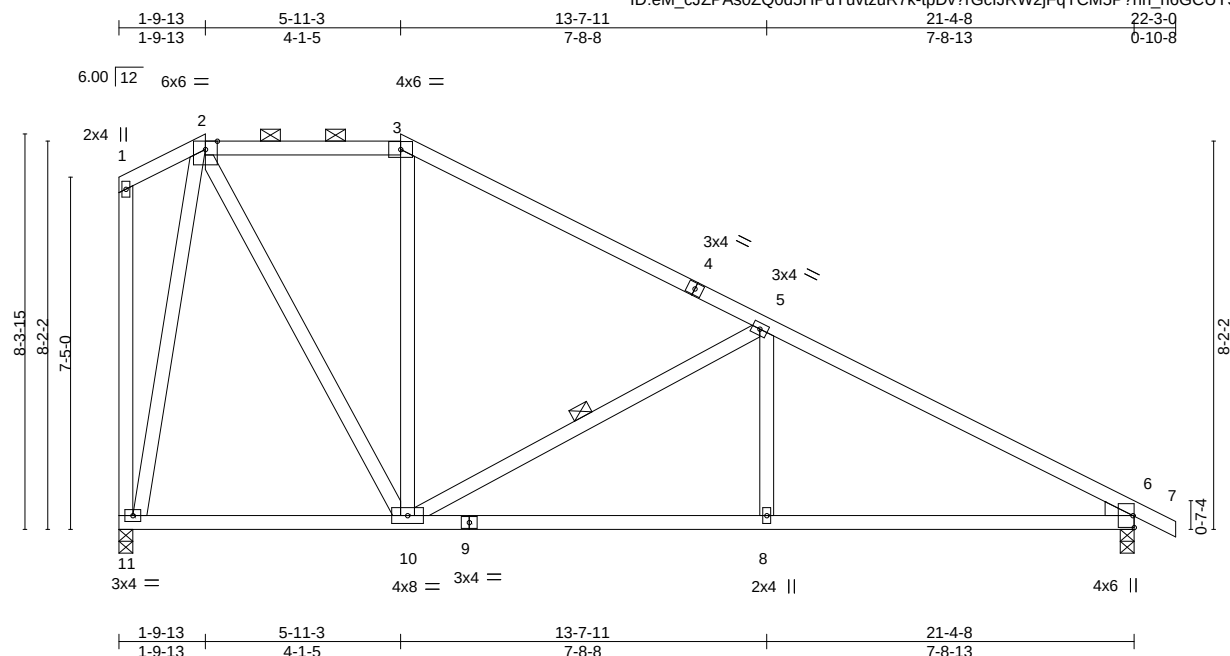
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014566
2783568	A7	Hip	1	1		

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

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:09 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvtzur7k-tpDv?rGclJRW2jFqYCM5P?hh_n6GCUYSouoTFxzl7q



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.55	Vert(LL)	-0.06 8-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.47	Vert(CT)	-0.13 8-10	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.99	Horz(CT)	0.02 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 103 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, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 5-10

REACTIONS.

(size) 11=0-3-8, 6=0-3-8
 Max Horz 11=-223(LC 6)
 Max Uplift 11=-25(LC 4), 6=-37(LC 9)
 Max Grav 11=954(LC 1), 6=1018(LC 1)

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

TOP CHORD 2-3=-550/85, 3-5=-741/65, 5-6=-1484/66
 BOT CHORD 8-10=0/1238, 6-8=0/1238
 WEBS 2-10=-53/778, 5-10=-790/118, 5-8=0/308, 2-11=-869/91

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 11 and 37 lb uplift at joint 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

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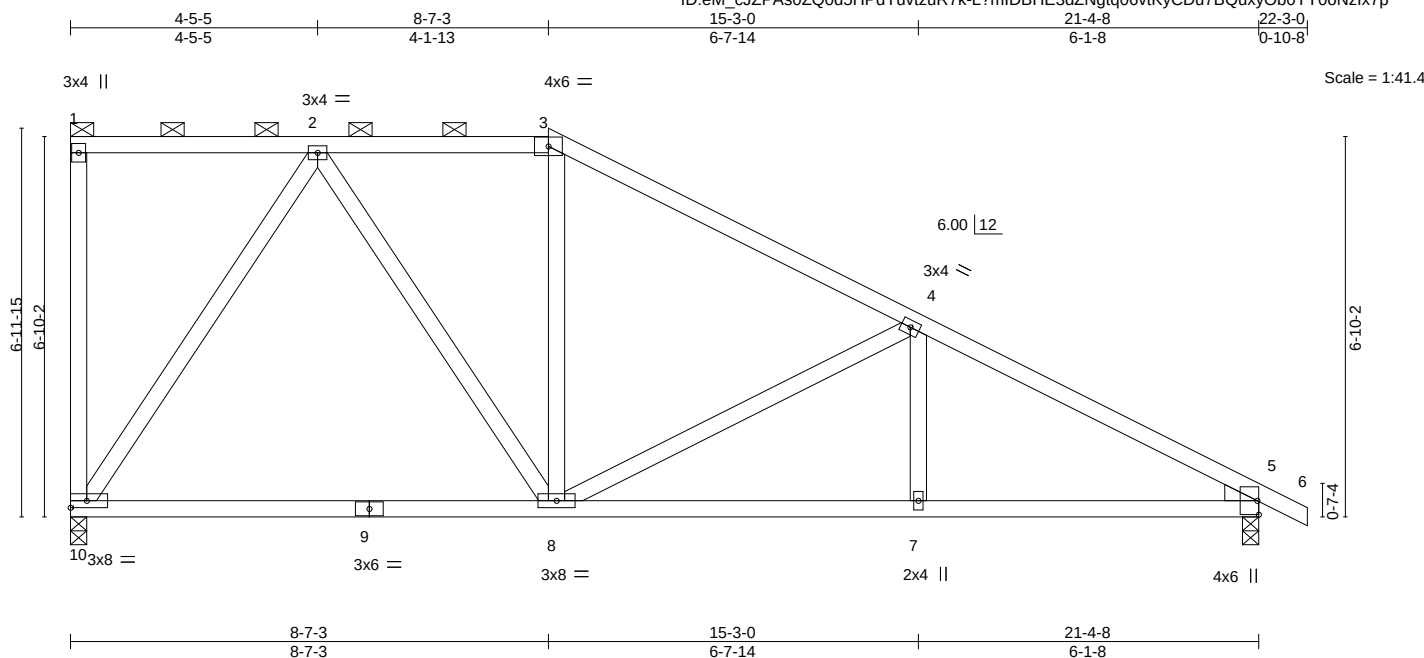
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	146014567
2783568	A8	Half Hip	1	1	Job Reference (optional)	

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

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:10 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvtzur7k-L?mIDBHE3dZNgqt06vtKyCDu7BQuxyOb0YY0oNzlx7p



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.14	8-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.29	8-10	>874	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.95	Horz(CT)	0.03	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 95 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, and 2-0-0 oc purlins (6-0-0 max.): 1-3.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 10=0-3-8, 5=0-3-8
 Max Horz 10=-196(LC 6)
 Max Uplift 10=-56(LC 4), 5=-34(LC 9)
 Max Grav 10=954(LC 1), 5=1018(LC 1)

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

TOP CHORD 2-3=-784/71, 3-4=-979/53, 4-5=-1546/60
 BOT CHORD 8-10=0/501, 7-8=0/1311, 5-7=0/1311
 WEBS 2-10=-883/84, 2-8=-25/513, 4-8=-595/104

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 10 and 34 lb uplift at joint 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	146014568
2783568	A9	Roof Special	1	1	Job Reference (optional)	

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

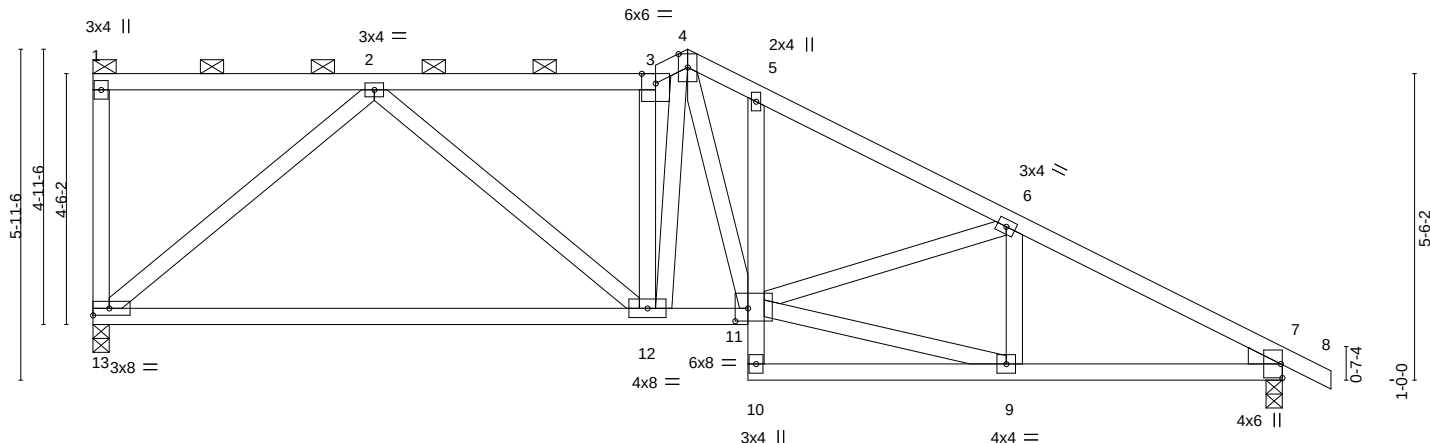
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:12 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvtzur7k-HOu2esJUbEp5vA_PDKwo1dJEh_4rPt6uUs17sGzlx7n

5-0-11	10-1-5	10-8-4	11-9-4	16-6-11	21-4-8	22-3-0
5-0-11	5-0-11	0-6-15	1-1-0	4-9-7	4-9-13	0-10-8

6.00 [12 4x6 ||

Scale = 1:41.4



	10-1-5	11-9-4	16-6-11	21-4-8
	10-1-5	1-7-15	4-9-7	4-9-13

Plate Offsets (X,Y)-- [11:0-2-12,0-2-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.22 12-13 >999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.45 12-13 >570	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.04 7 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 104 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, and 2-0-0 oc purlins (4-11-11 max.): 1-3.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 13=0-3-8, 7=0-3-8
Max Horz 13=-147(LC 4)
Max Uplift 13=-42(LC 4), 7=-32(LC 9)
Max Grav 13=954(LC 1), 7=1018(LC 1)

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

TOP CHORD 2-3=-1219/28, 3-4=-1406/43, 4-5=-1372/78, 5-6=-1461/46, 6-7=-1565/51
BOT CHORD 12-13=0/871, 11-12=0/1127, 7-9=0/1334
WEBS 3-12=-800/60, 4-12=0/763, 4-11=-112/421, 9-11=-20/1210, 2-13=-1097/84, 2-12=0/456

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 13 and 32 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	A10	Roof Special Girder	1	1	146014569

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

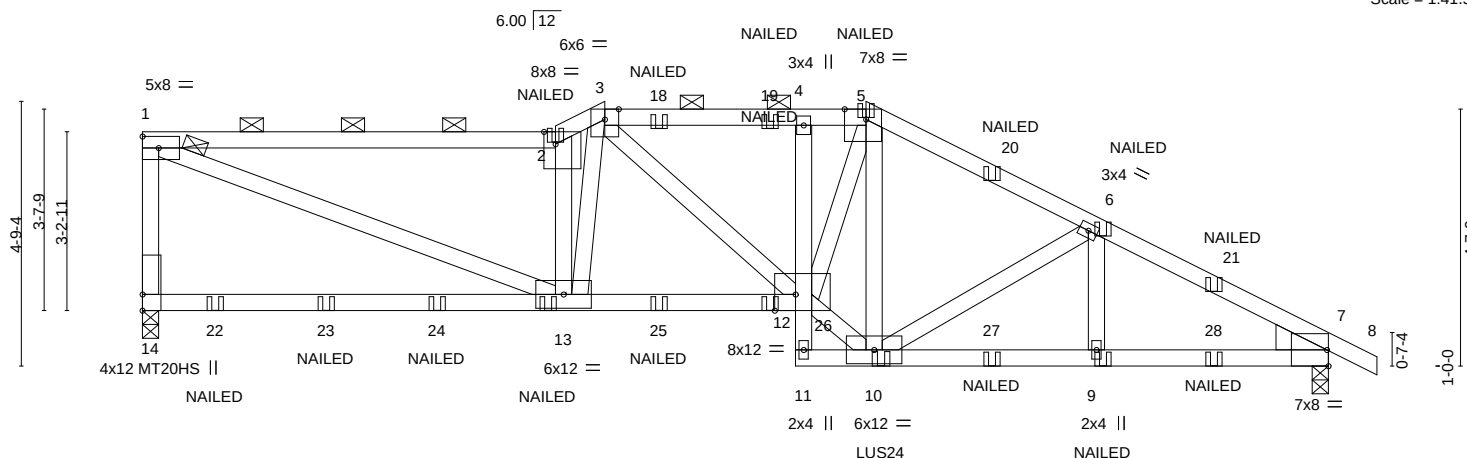
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:23:59 2021 Page 1

ID:eM_cJZPAS0ZQd5HPdYuvizur7k-Auc7vQ9KfEAXsAUvz5Bl?uGv_lC7s?9_VLNxwWzlx8_

Job Reference (optional)

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

Scale = 1:41.5



	7-5-5	8-4-0	11-9-4	13-0-8	17-2-5	21-4-8
	7-5-5	0-10-11	3-5-4	1-3-4	4-1-13	4-2-3

Plate Offsets (X,Y)-- [2:0-2-8,Edge], [5:0-4-10,Edge], [12:0-4-8,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 0.84	Vert(LL)	-0.19 13-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.44 13-14	>582	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	NO	WB 0.79	Horz(CT)	0.08 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						
								Weight: 102 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-2: 2x4 SP 2400F 2.0E
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
4-11: 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Right: 2x6 SPF No.2

BRACING-

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

REACTIONS.

(size) 14=0-3-8, 7=0-3-8
Max Horz 14=-109(LC 4)
Max Uplift 14=-162(LC 4), 7=-123(LC 9)
Max Grav 14=1713(LC 1), 7=1870(LC 1)

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

TOP CHORD 1-14=-1463/170, 1-2=-3130/299, 2-3=-3387/325, 3-4=-2970/321, 4-5=-2920/315,
5-6=-2570/270, 6-7=-3090/231
BOT CHORD 12-13=-202/2806, 4-12=-503/145, 9-10=-160/2663, 7-9=-160/2663
WEBS 1-13=-327/3229, 2-13=-1832/227, 3-13=-47/1085, 3-12=-64/303, 10-12=-188/2677,
5-12=-201/1989, 5-10=-888/70, 6-10=-486/18, 6-9=0/277

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 12 = 8%
- 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 162 lb uplift at joint 14 and 123 lb uplift at joint 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 13-3-12 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

Continued on page 2



May 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014569
2783568	A10	Roof Special Girder	1	1	Job Reference (optional)	

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

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:00 2021 Page 2
ID:eM_cJZPAs0ZQ0d5HPdYuvtzuR7k-e4AW6m9yQYIoTK35Wpi_Y6p4k9xMbSO7j?7URyzlx7z

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-2=-70, 2-3=-70, 3-5=-70, 5-8=-70, 12-14=-20, 11-15=-20

Concentrated Loads (lb)

Vert: 2=-102(B) 13=-71(B) 10=-236(B) 6=-42(B) 9=-131(B) 18=-156(B) 19=-156(B) 21=-94(B) 22=-105(B) 23=-116(B) 24=-98(B) 25=-16(B) 26=-16(B) 27=-184(B) 28=-89(B)

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



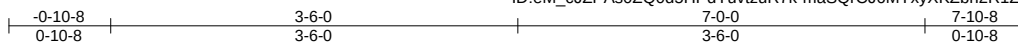
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	B1	Common Supported Gable	1	1	I46014570
Job Reference (optional)					

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

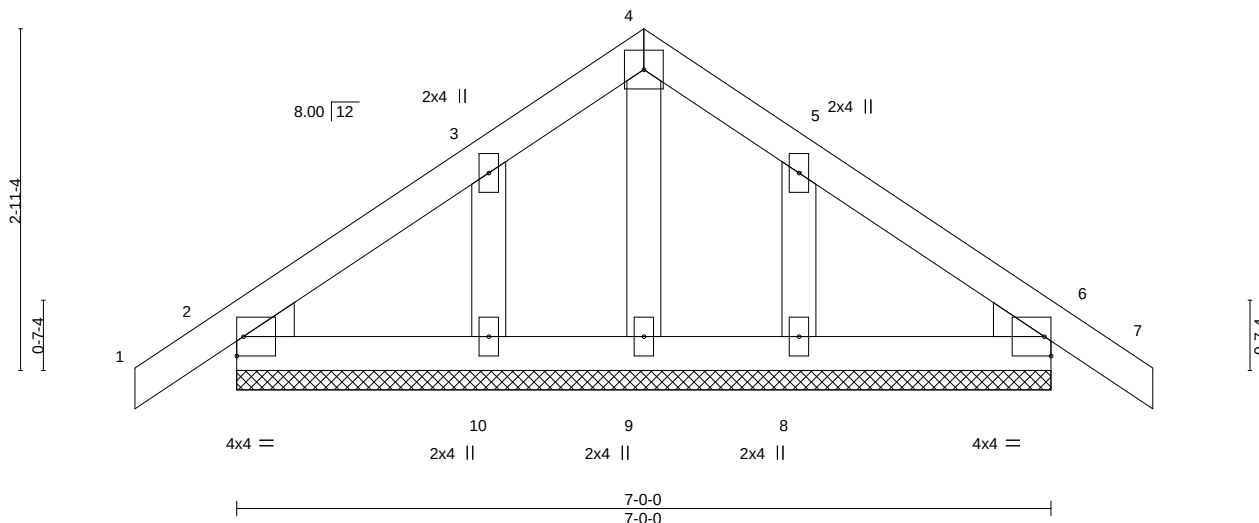
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:13 2021 Page 1

ID:eM_cJZPA0ZQ0d5HPdYutzuR7k-maSQrCJ6MYxyXKZbn2R1ZrrVpOa88Wi2jWmgOizlx7m



4x4 =

Scale = 1:19.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	6	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	6	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	6	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

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 7-0-0.

(lb) - Max Horz 2--55(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8

Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) Gable requires continuous bottom chord bearing.

5) Gable studs spaced at 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) 2, 6, 10, 8.

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



May 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

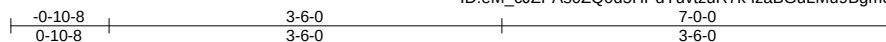
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	B2	Common	4	1	I46014571

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

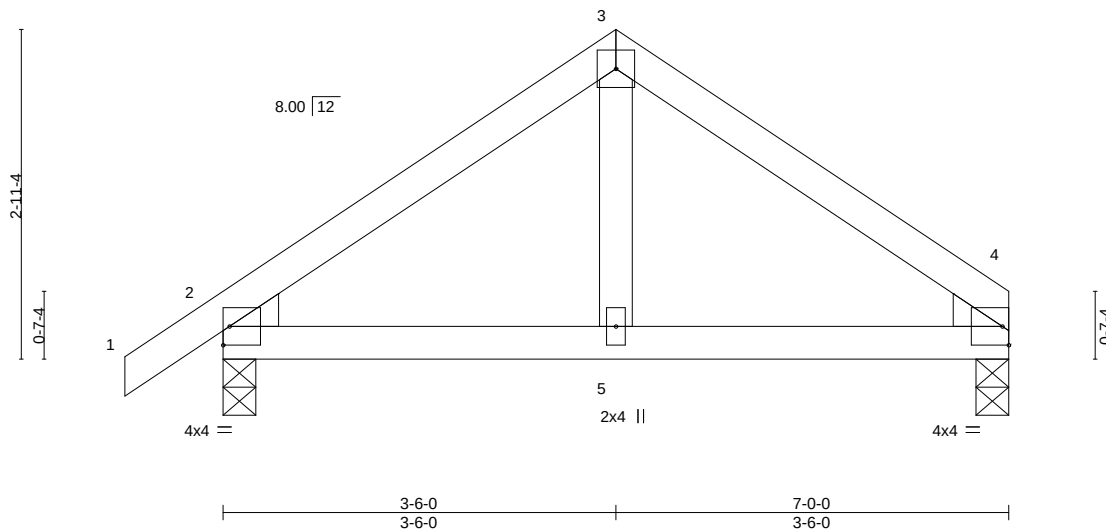
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:15 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvtzR7k-izaBGuLMu9BgmeizvSTVfGxp4CE1cQzKAqFnTbzl7k



4x4 =

Scale = 1:20.5



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 0.13	Vert(LL)	-0.01	5-11	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	-0.01	5-11	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 23 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

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, 4=0-3-8

Max Horz 2=51(LC 5)

Max Uplift 2=-13(LC 8), 4=-5(LC 9)

Max Grav 2=380(LC 1), 4=311(LC 1)

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

TOP CHORD 2-3=-333/26, 3-4=-331/24

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
- 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.



May 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 2783568	Truss C1	Truss Type Hip Girder	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014572
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

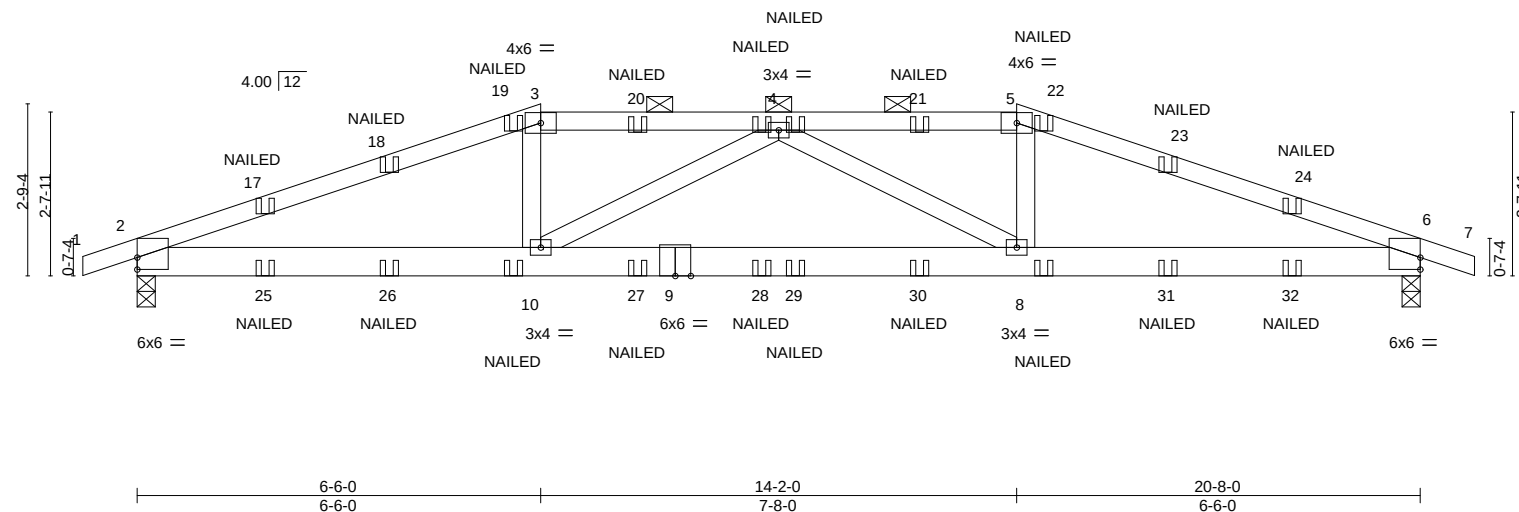
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:18 2021 Page 1

ID:eM_cJZPA0ZQ0d5HPdYuvtzR7k-6YFJuwNFA4ZEd5RYab1CGuZABP5cpknsouUR4vzlx7h

Job Reference (optional)

0-10-8 6-6-0 10-4-0 14-2-0 20-8-0 21-6-8
0-10-8 6-6-0 3-10-0 3-10-0 6-6-0 0-10-8

Scale = 1:37.1



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 0.78	Vert(LL)	-0.15	8-10	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.31	8-10	>804	180	197/144
BCLL 0.0	Rep Stress Incr	NO	WB 0.22	Horz(CT)	0.05	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						
								Weight: 78 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 2-7-9 oc purlins, except 2-0-0 oc purlins (3-2-12 max.); 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=22(LC 27)
Max Uplift 2=-129(LC 4), 6=-129(LC 5)
Max Grav 2=1452(LC 1), 6=1452(LC 1)

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

TOP CHORD 2-3=-3102/261, 3-4=-2836/260, 4-5=-2836/260, 5-6=-3102/261
BOT CHORD 2-10=-217/2873, 8-10=-314/3270, 6-8=-197/2873
WEBS 3-10=-17/661, 4-10=-599/140, 4-8=-599/140, 5-8=-17/661

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=129, 6=129.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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, 3-5=-70, 5-7=-70, 11-14=-20
Concentrated Loads (lb)
Vert: 10=-141(B) 4=-95(B) 8=-141(B) 17=-33(B) 20=-47(B) 21=-47(B) 24=-33(B) 25=-51(B) 26=-94(B) 27=-24(B) 28=-24(B) 29=-24(B) 30=-24(B) 31=-94(B) 32=-51(B)



May 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	146014573
2783568	C2	Hip	1	1		

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

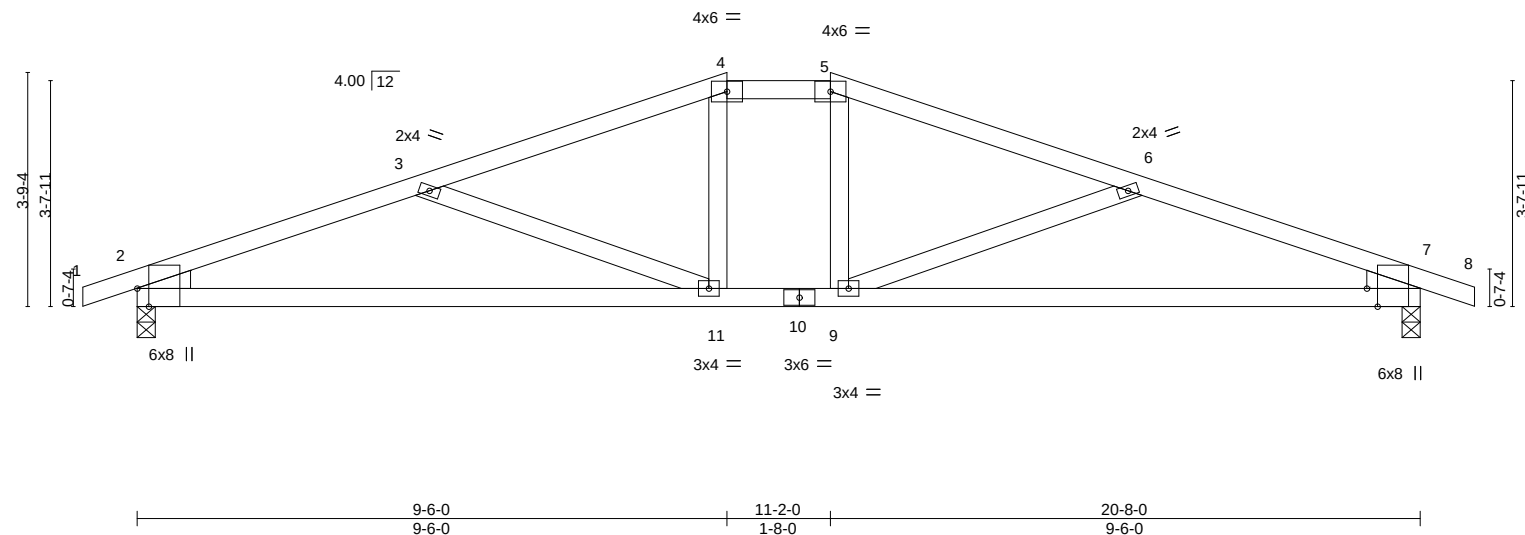
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:19 2021 Page 1

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Job Reference (optional)

0-10-8	4-8-8	9-6-0	11-2-0	15-11-8	20-8-0	21-6-8
0-10-8	4-8-8	4-9-8	1-8-0	4-9-8	4-8-8	0-10-8

Scale = 1:37.1



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 0.35	Vert(LL)	-0.12 9-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.26 11-14	>955	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.05 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 71 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, except
2-0-0 oc purlins (4-8-8 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
Max Horz 2=32(LC 8)
Max Uplift 2=60(LC 4), 7=60(LC 5)
Max Grav 2=991(LC 1), 7=991(LC 1)

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

TOP CHORD 2-3=-1946/108, 3-4=-1570/59, 4-5=-1437/66, 5-6=-1570/59, 6-7=-1946/108
BOT CHORD 2-11=-86/1800, 9-11=-3/1437, 7-9=-59/1800
WEBS 3-11=-465/101, 4-11=0/258, 5-9=0/258, 6-9=-465/101

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 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#109/mo	146014574
2783568	C3	Common	1	1		

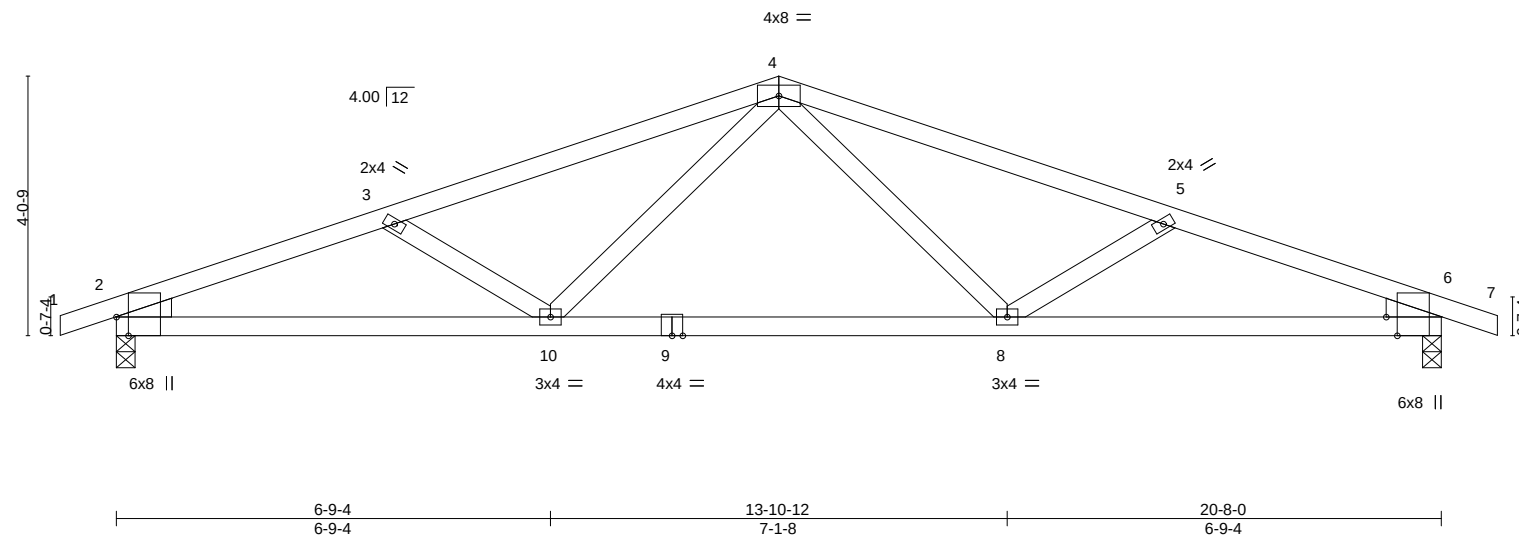
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:20 2021 Page 1

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0-10-8	4-4-1	10-4-0	16-4-0	20-8-0	21-6-8
0-10-8	4-4-1	6-0-0	6-0-0	4-4-1	0-10-8

Scale = 1:35.9



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.49	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.13 8-10 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.27 8-10 >928 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.05 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 71 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=35(LC 8)
Max Uplift 2=-57(LC 4), 6=-57(LC 5)
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=-2002/98, 3-4=-1729/62, 4-5=-1729/62, 5-6=-2002/98
BOT CHORD 2-10=-85/1851, 8-10=-12/1306, 6-8=-56/1851
WEBS 3-10=-375/101, 4-10=0/441, 4-8=0/441, 5-8=-375/101

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



May 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

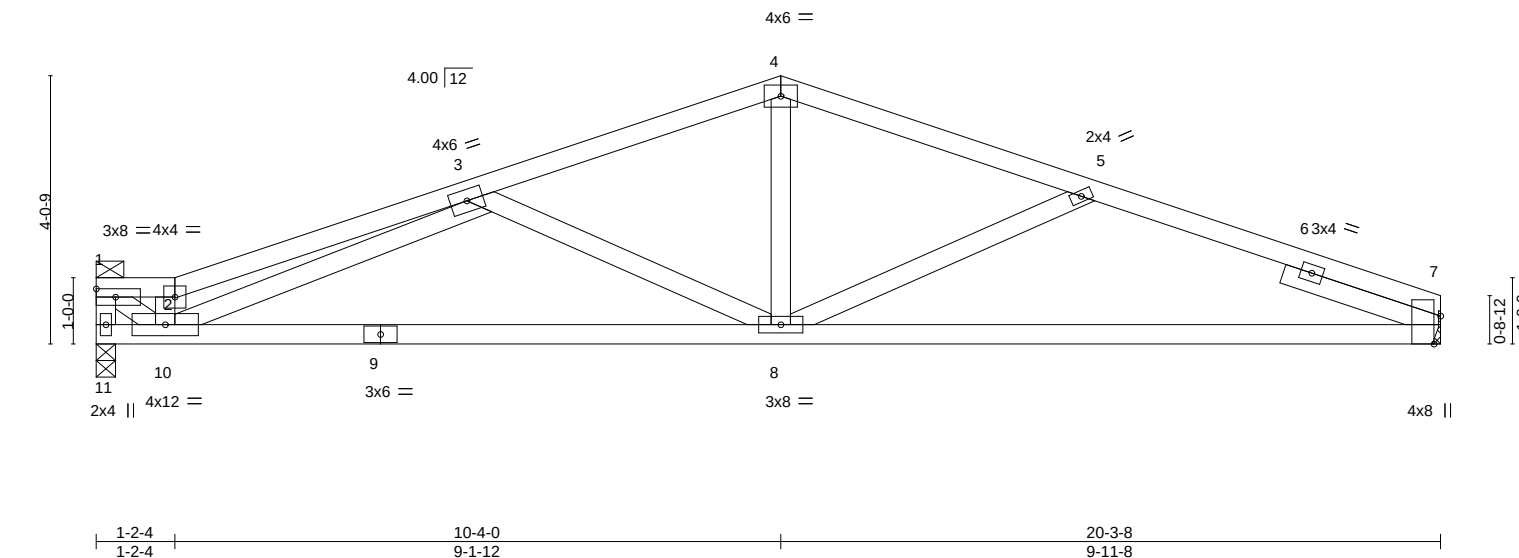
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	146014575
2783568	C4	Roof Special	1	1		

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

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1-2-4	5-9-10	10-4-0	14-10-6	20-3-8
1-2-4	4-7-6	4-6-7	4-6-6	5-5-1

Scale = 1:34.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	-0.13 8-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.29 8-10	>820	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.40	Horz(CT)	0.05 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 73 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 11=0-3-8, 7=Mechanical
Max Horz 11=-30(LC 11)
Max Uplift 11=-29(LC 4), 7=-32(LC 5)
Max Grav 11=1011(LC 1), 7=912(LC 1)

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

TOP CHORD 1-11=-1066/0, 1-2=-1368/0, 2-3=-1640/16, 3-4=-1422/49, 4-5=-1418/47, 5-7=-1745/94
BOT CHORD 8-10=-75/1703, 7-8=-53/1620
WEBS 1-10=0/1632, 2-10=-785/54, 3-8=-494/98, 4-8=0/534, 5-8=-414/99

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 148 lb up and 13 lb up at 1-2-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-70, 2-4=-70, 4-7=-70, 11-12=-20
Concentrated Loads (lb)
Vert: 2=-110



May 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014576
2783568	CJ1	Jack-Open Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

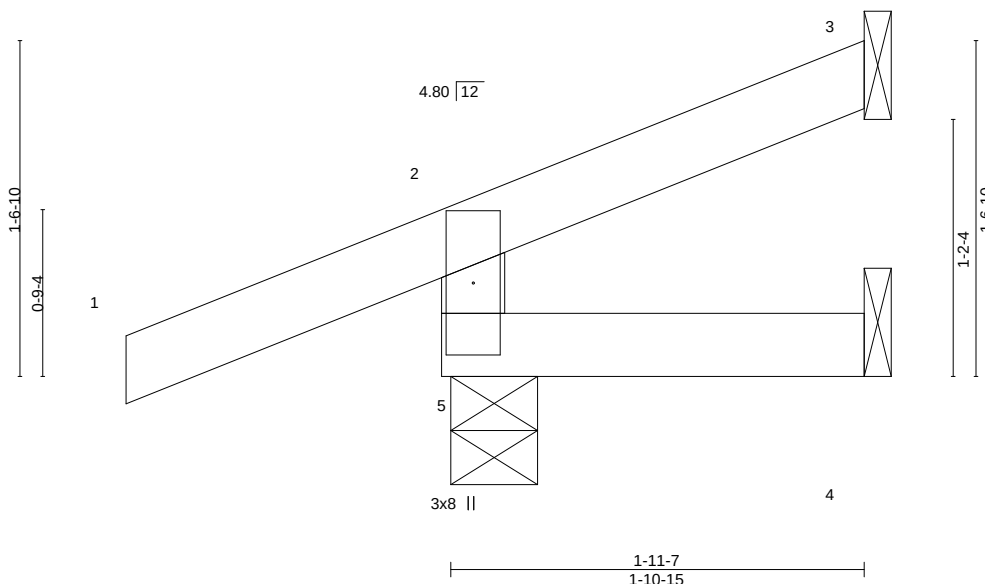
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:24 2021 Page 1

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-1-5-8 1-5-8 1-11-7 1-11-7

Scale = 1:10.6



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 0.20	Vert(LL)	0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	5	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-13, 3=Mechanical, 4=Mechanical
Max Horz 5=31(LC 5)
Max Uplift 5=40(LC 4), 3=-13(LC 8)
Max Grav 5=243(LC 1), 3=27(LC 1), 4=29(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



May 10, 2021

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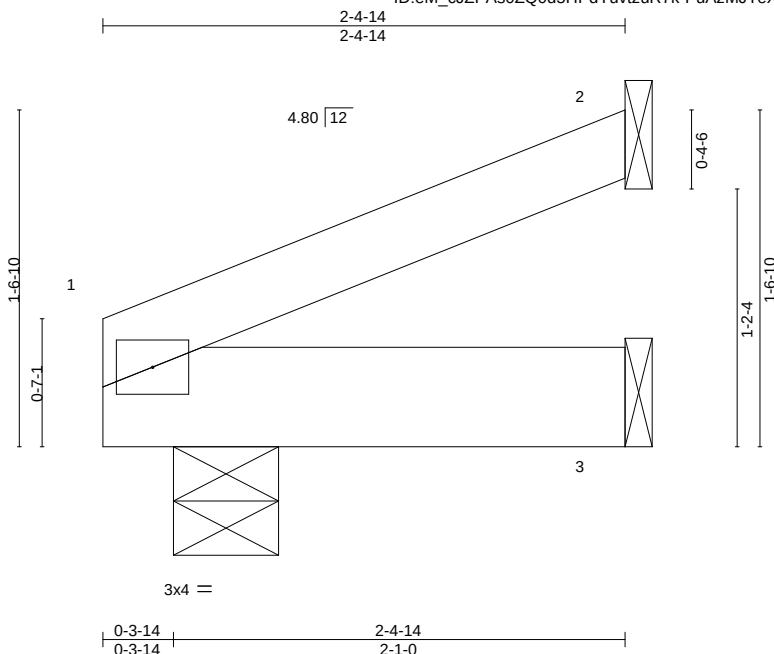
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014577
2783568	CJ2	Jack-Open Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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Scale = 1:10.6

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 0.05	Vert(LL)	-0.00	8	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	8	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	2	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 2-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-5-13, 2=Mechanical, 3=Mechanical
Max Horz 1=24(LC 8)
Max Uplift 2=-14(LC 8)
Max Grav 1=122(LC 1), 2=56(LC 1), 3=41(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) Refer to girder(s) for truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2783568	Truss CJ3	Truss Type Jack-Open Girder	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014578
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:26 2021 Page 1
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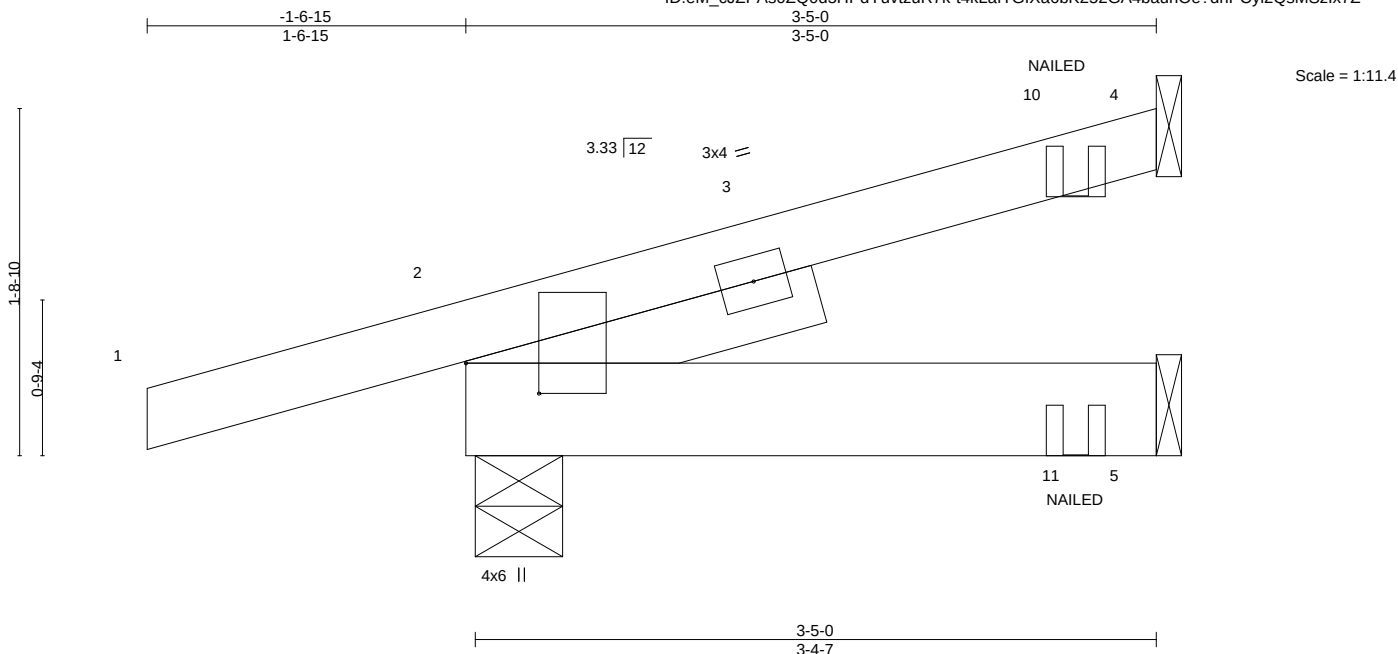


Plate Offsets (X,Y)-- [2:0-1-13,0-4-5]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.00	8	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 14 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 1-9-5

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-5-3, 5=Mechanical
Max Horz 2=40(LC 4)
Max Uplift 4=-16(LC 8), 2=-52(LC 4)
Max Grav 4=72(LC 1), 2=287(LC 1), 5=66(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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



May 10, 2021

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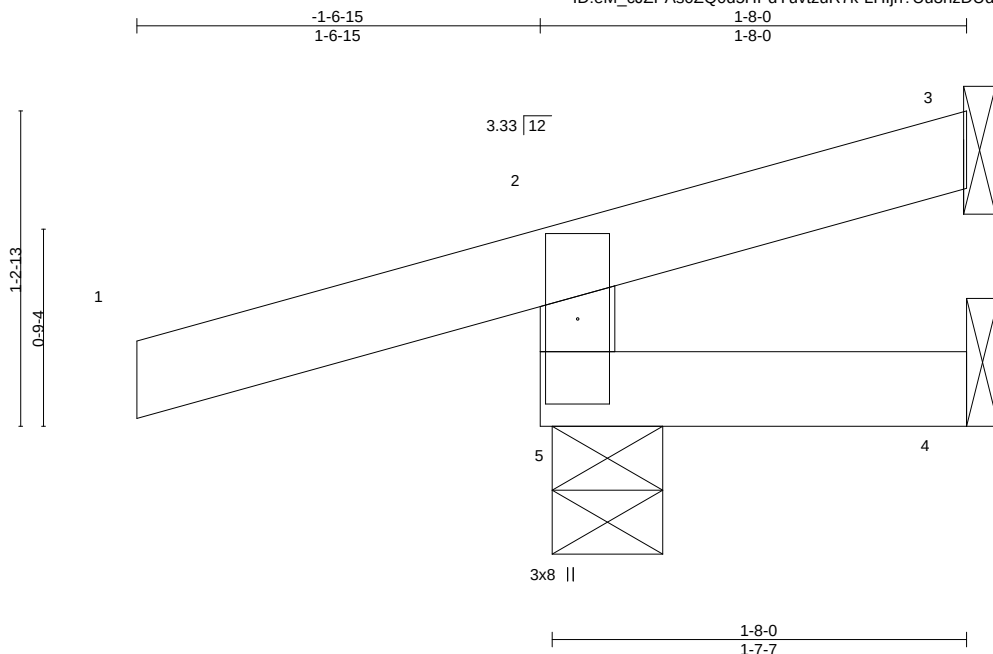
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014579
2783568	CJ4	Jack-Open Girder	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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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 0.23	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00		n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-5-3, 4=Mechanical
Max Horz 5=36(LC 5)
Max Uplift 5=73(LC 4)
Max Grav 5=257(LC 1), 4=26(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
- 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.



May 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

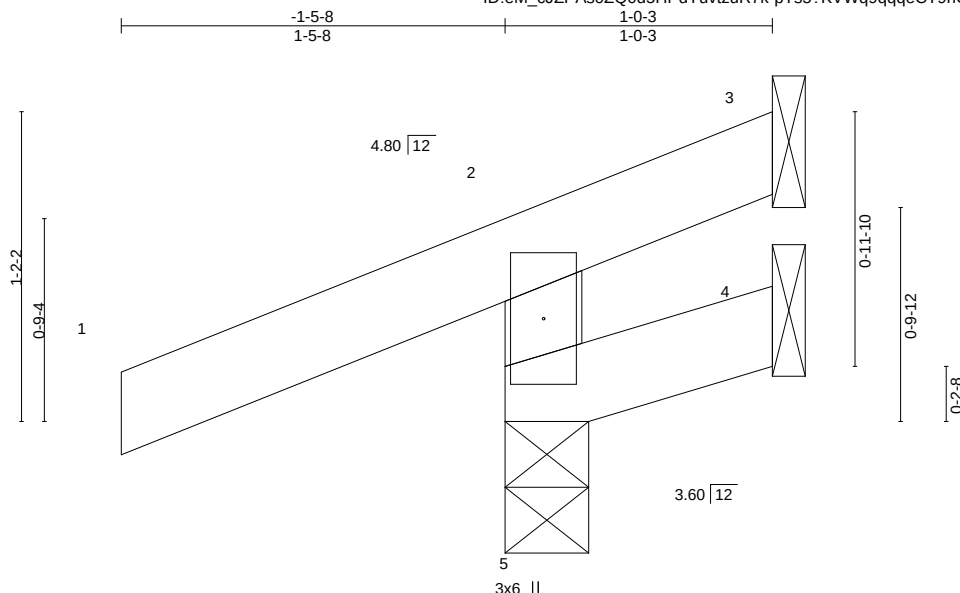
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014580
2783568	CJ5	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:28 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvtzur7k-pTs5?KVWq9qqqeCT9hCYg?z16RIS9JiF9MvzQKzlx7X



Scale = 1:8.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 5 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-0-3 oc purlins, except end verticals.

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

REACTIONS. (size) 5=0-3-13, 3=Mechanical, 4=Mechanical
Max Horz 5=25(LC 5)
Max Uplift 5=-55(LC 4), 3=-48(LC 1), 4=-19(LC 1)
Max Grav 5=256(LC 1), 3=16(LC 4), 4=8(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 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 2783568	Truss D1	Truss Type Common Supported Gable	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014581
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:30 2021 Page 1

ID:eM_cJZPAs0ZQd5HPdYuvzuR7k-mr_rP0XnLm4X4xMsh6E0IQ2PXFOkdCQYdgO4VDzlx7V

0-10-8 8-4-0 16-8-0 17-6-8
0-10-8 8-4-0 8-4-0 0-10-8

4x4 =

Scale = 1:38.3

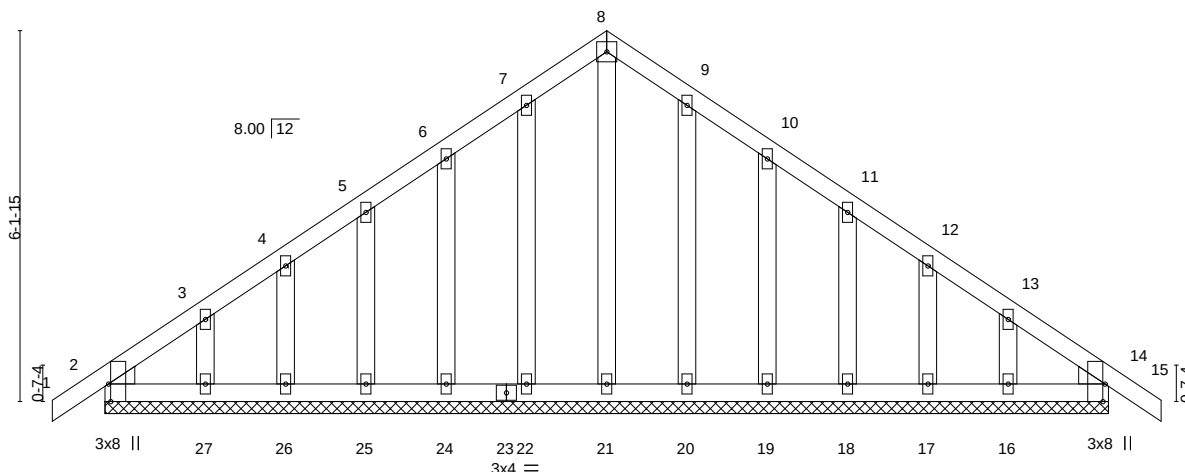


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [14:0-3-8,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-0.00	14	n/r
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	15	n/r
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	14	n/a
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 86 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=115(LC 7)

Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 24, 25, 26, 27, 20, 19, 18, 17, 16

Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 24, 25, 26, 27, 20, 19, 18, 17, 16, 14

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) 2, 22, 24, 25, 26, 27, 20, 19, 18, 17, 16.
- 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.



May 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 2783568	Truss D2	Truss Type COMMON	Qty 2	Ply 1	summit/hawthorne ridge#109/mo I46014582
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:31 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYvvtzuR7k-E2YEdMXP64COh5x2qplGlebYGfdKMdNhrJ7d1fzlx7U

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

4x4 =

Scale = 1:38.3

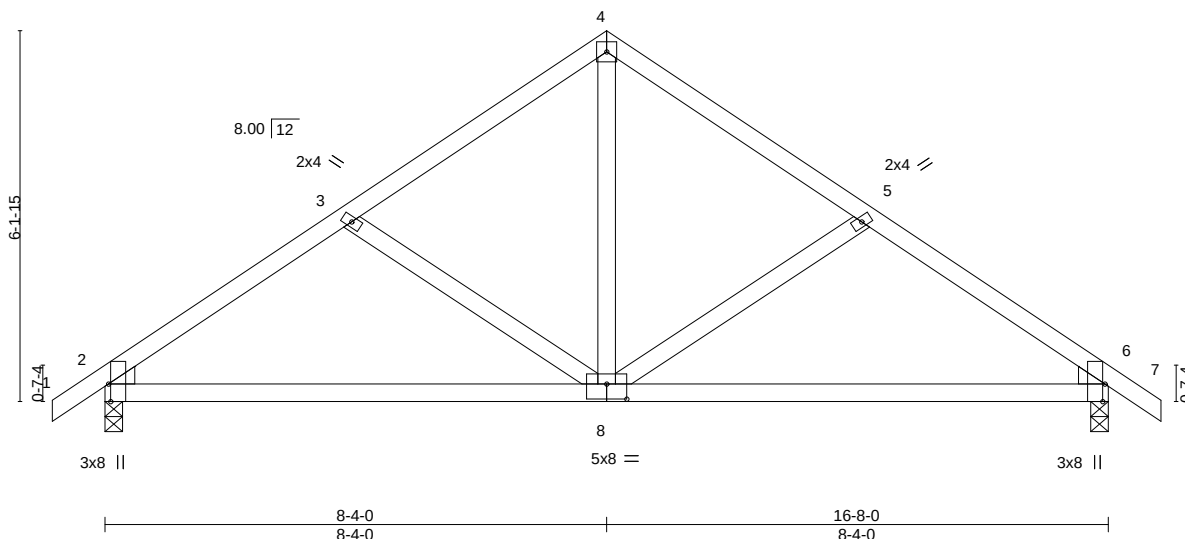


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [6:0-3-8,Edge], [8:0-4-0,0-3-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP			
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.07	8-14	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.48	Vert(CT)	-0.13	8-14	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 63 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=115(LC 7)
Max Uplift 2=-21(LC 8), 6=-21(LC 9)
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=-995/47, 3-4=-762/55, 4-5=-762/55, 5-6=-995/47
BOT CHORD 2-8=-38/778, 6-8=0/778
WEBS 4-8=0/460, 5-8=-278/91, 3-8=-278/91

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



May 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

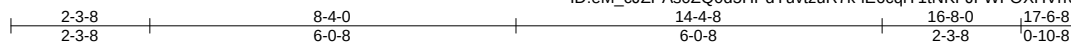


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014583
2783568	D3	Roof Special	6	1		

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

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:32 2021 Page 1
ID:eM_cJZPA0ZQ0d5HPdYuvztuR7k-iE6cqiY1tNKfJFWFOXHVrr8e22vs54Or4ztBZ6zlx7T



6x6 =

Scale = 1:38.0

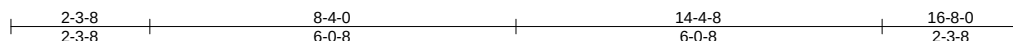
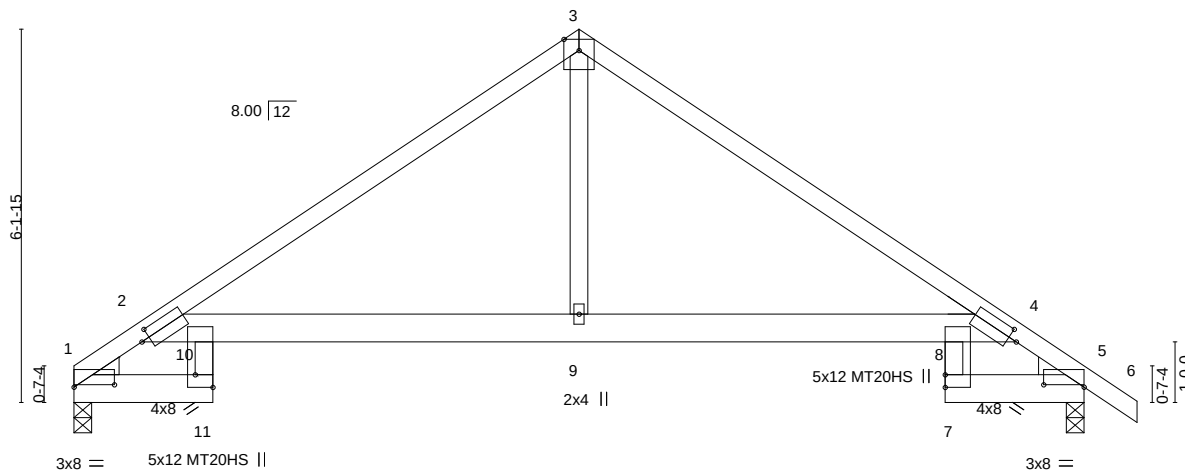


Plate Offsets (X,Y)-- [1:0-8-0,0-0-8], [2:0-1-11,0-1-14], [4:0-1-11,0-1-14], [5:0-8-0,0-0-8], [11:Edge,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.13	9-10	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.65	Vert(CT)	-0.23	9-10	>872	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.17	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS							
									Weight: 66 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-11,5-7: 2x6 SPF No.2, 2-4: 2x6 SPF 2100F 1.8E
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. Except:
10-0-0 oc bracing: 8-9

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=-112(LC 4)
Max Uplift 1=-14(LC 8), 5=-21(LC 9)
Max Grav 1=748(LC 1), 5=813(LC 1)

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

TOP CHORD 2-13=-905/26, 2-3=-1109/38, 3-4=-1109/58, 4-5=-888/35
BOT CHORD 1-11=-44/491, 2-10=0/337, 9-10=0/828, 8-9=0/828, 4-8=-8/375, 5-7=-8/476
WEBS 3-9=0/601

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.
- 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.



May 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

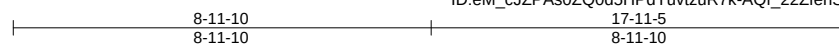
Job 2783568	Truss HF1	Truss Type GABLE	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014584
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:33 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvztzuR7k-AQf_22ZfehS6xP5RyEokN3gvRSPbqY6_Jdck6Yzlx7S



4x4 =

Scale = 1:49.5

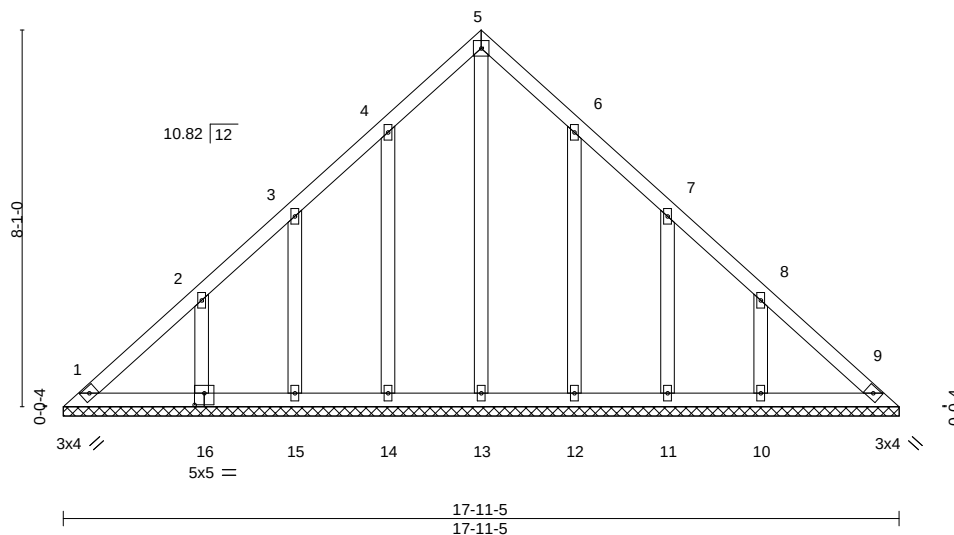


Plate Offsets (X,Y)--	[16:0-2-8,0-3-0]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 82 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 17-11-5.
(lb) - Max Horz 1=145(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 14, 15, 16, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 12, 11 except 16=250(LC 13), 10=253(LC 14)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- 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, 14, 15, 16, 12, 11, 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.



May 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

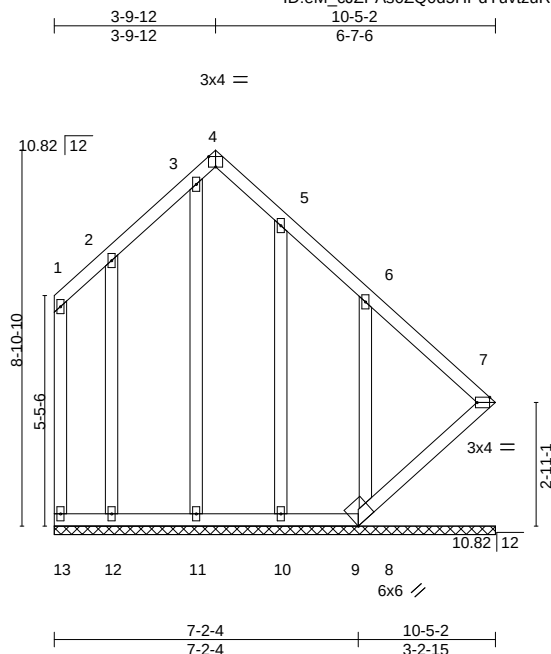
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	HF2	GABLE	1	1	I46014585
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:34 2021 Page 1

ID: eM_cJZPA50ZQ0d5HPdYuvztuR7k-edDMFOaHP?azYzfWYJzwGD4fsk7Z_H7YHMHe_zlx7R



Scale = 1:54.5

Plate Offsets (X,Y)--		[4:0-2-0,Edge], [7:0-3-9,Edge]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a - n/a	999	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a - n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.00 7 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 65 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, Except: 6-0-0 oc bracing: 7-8.

REACTIONS.

All bearings 10-5-2.

(lb) - Max Horz 13=-194(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) 13, 11, 12, 10, 8 except 7=-162(LC 5), 9=-222(LC 6)

Max Grav All reactions 250 lb or less at joint(s) 13, 9, 11, 12, 10 except 7=272(LC 6), 8=368(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- 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) 13, 11, 12, 10, 8 except (jt=lb) 7=162, 9=222.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 7, 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.



May 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

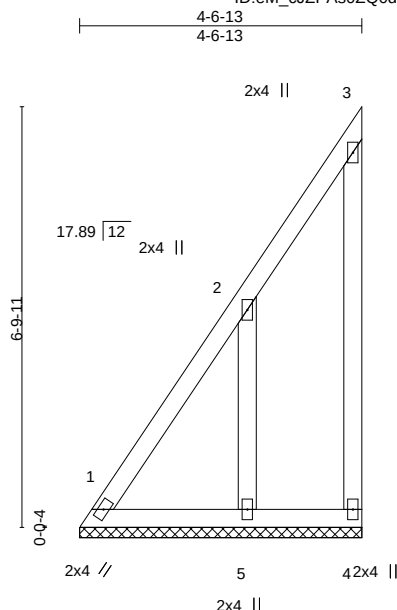
Job 2783568	Truss HF3	Truss Type GABLE	Qty 2	Ply 1	summit/hawthorne ridge#109/mo I46014586
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:35 2021 Page 1

ID:eM_cJZPAS0ZQ0d5HPdYvvtzuR7k-6pnkTkavAljqAiEp3fqCSUMCoG58ITcHmx5rAQzlx7Q



Scale = 1:37.3

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 0.21	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 25 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 4-6-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-6-13, 4=4-6-13, 5=4-6-13
Max Horz 1=177(LC 5)
Max Uplift 1=-75(LC 4), 4=-90(LC 7), 5=-161(LC 8)
Max Grav 1=183(LC 14), 4=90(LC 4), 5=294(LC 13)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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, 4 except (jt=lb) 5=161.
- 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.



May 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

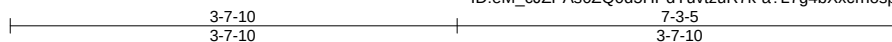
Job 2783568	Truss HF4	Truss Type GABLE	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014587
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

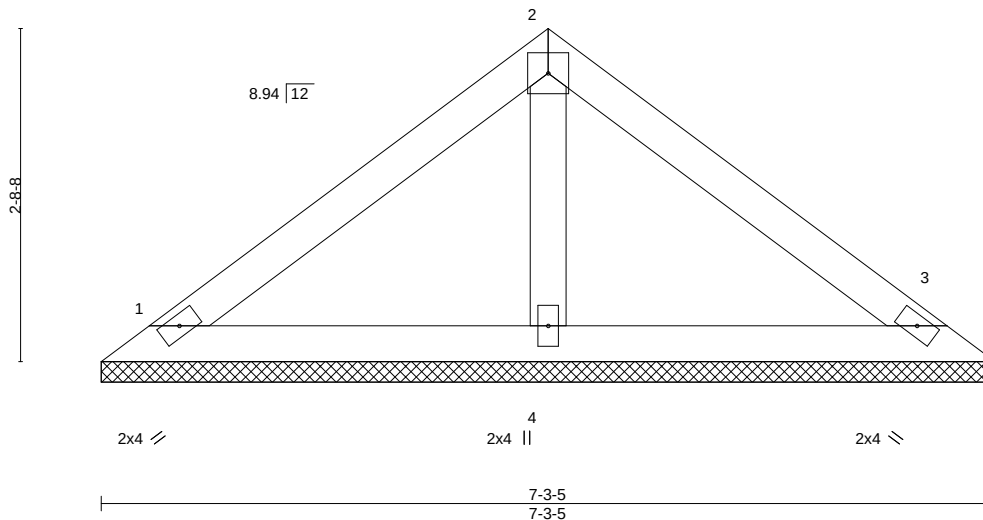
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:36 2021 Page 1

ID:eM_cJZPA0ZQ0d5HPdYuvztuR7k-a?L7g4bXxcrhosp0dNLR?hIOtgQd1wHQ?brOitzlx7P



4x4 =

Scale = 1:18.7



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 0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 20 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=7-3-5, 3=7-3-5, 4=7-3-5
Max Horz 1=-45(LC 4)
Max Uplift 1=-13(LC 8), 3=-18(LC 9)
Max Grav 1=160(LC 1), 3=160(LC 1), 4=255(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



May 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 2783568	Truss M1	Truss Type Jack-Open	Qty 4	Ply 1	summit/hawthorne ridge#109/mo I46014588
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

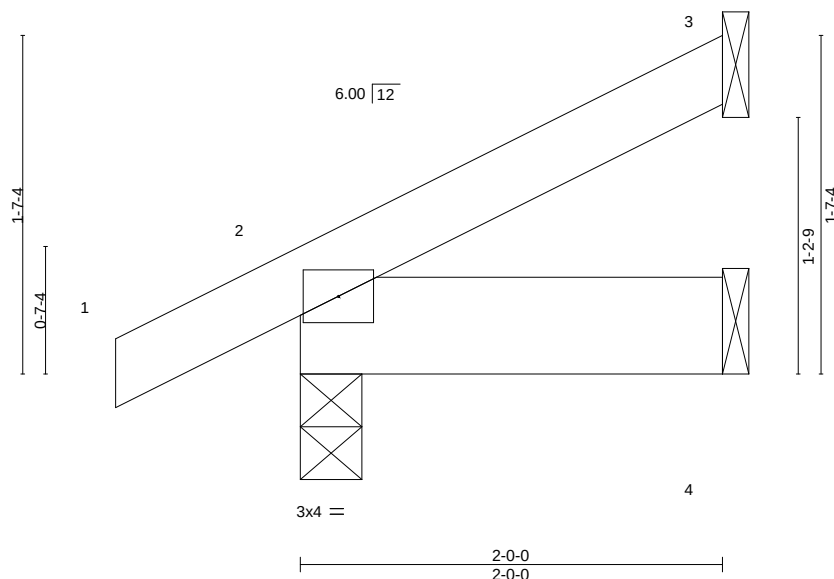
8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:36 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYvtzuR7k-a?L7g4bXxrhosp0dNLR?hIQ_gRk1whQ?brOitzlx7P

-0-10-8
0-10-8

2-0-0
2-0-0

Scale = 1:10.9



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 0.05	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	2	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 2-0-0 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=34(LC 8)
Max Uplift 3=-14(LC 8), 2=-5(LC 8)
Max Grav 3=48(LC 1), 2=164(LC 1), 4=40(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 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



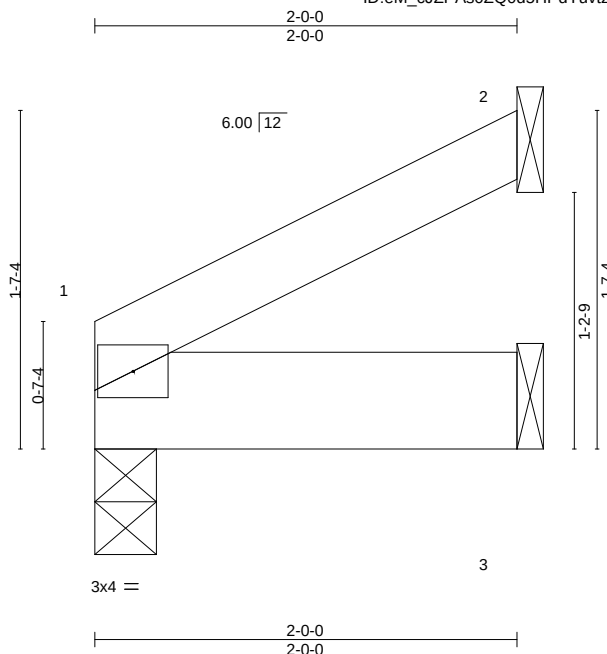
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2783568	Truss M1A	Truss Type JACK-OPEN	Qty 2	Ply 1	summit/hawthorne ridge#109/mo I46014589
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:46 2021 Page 1
ID:eM_cJZPas0ZQ0d5HPdYvutzuR7k-lwyvmUjpah5G_PaxDTXnPoj8lirsNS9uI9Gw3Izlx7F



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 0.03	Vert(LL)	-0.00 6	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00 6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00 1	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 1=25(LC 8)
Max Uplift 2=-14(LC 8)
Max Grav 1=89(LC 1), 2=51(LC 1), 3=43(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 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.



May 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

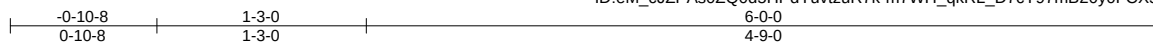
Job 2783568	Truss M2	Truss Type Jack-Open Girder	Qty 3	Ply 1	summit/hawthorne ridge#109/mo I46014590
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:47 2021 Page 1

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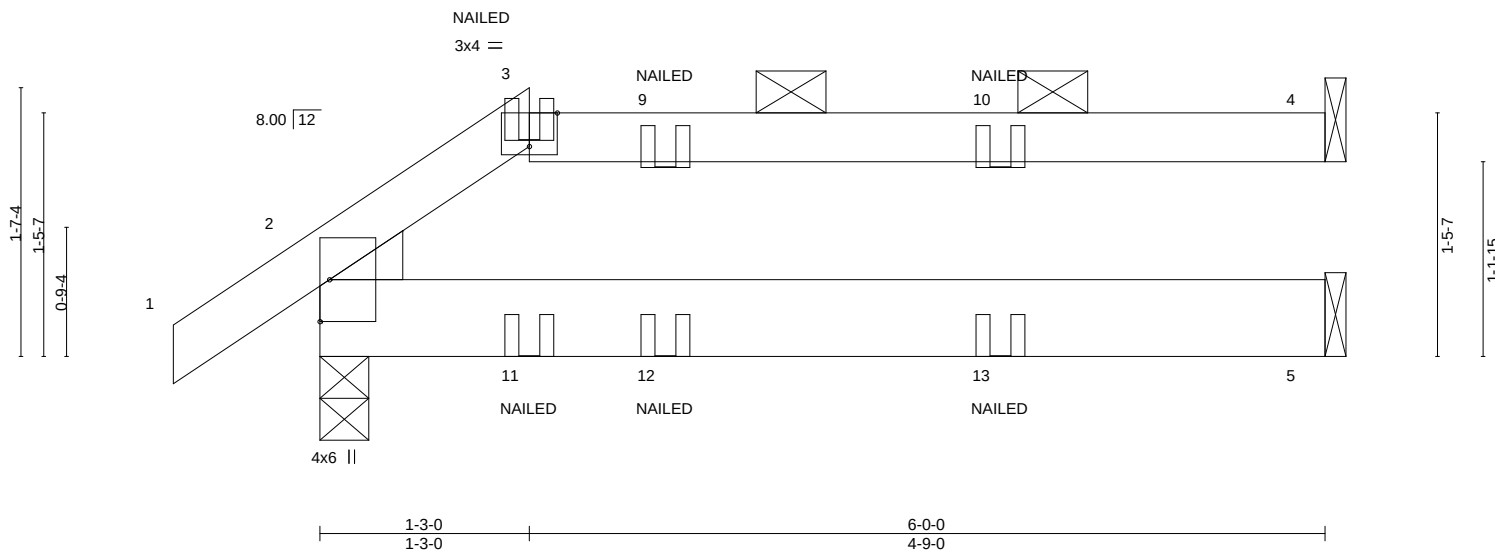


Plate Offsets (X,Y)--		[3:0-2-0,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48
TCDL 10.0	Lumber DOL	1.15	BC 0.29
BCLL 0.0	Rep Stress Incr	NO	WB 0.00
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.03 5-8 >999 240
			Vert(CT) -0.05 5-8 >999 180
			Horz(CT) 0.05 4 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 20 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=30(LC 8)
Max Uplift 4=32(LC 4), 2=8(LC 8)
Max Grav 4=164(LC 1), 2=349(LC 1), 5=132(LC 3)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 5-6=-20
Concentrated Loads (lb)
Vert: 11=-10(B) 12=-8(B) 13=-8(B)



May 10, 2021

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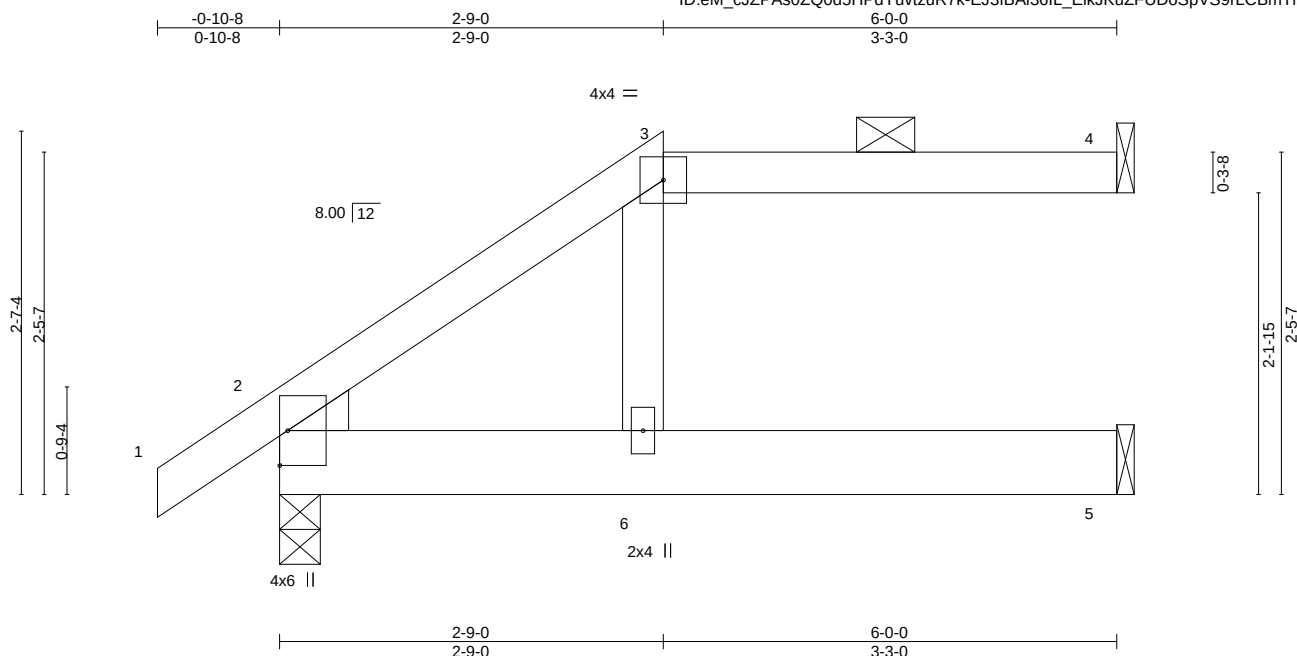
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2783568	Truss M3	Truss Type Jack-Open	Qty 3	Ply 1	summit/hawthorne ridge#109/mo I46014591
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:48 2021 Page 1
ID:eM_cJZPA0ZQ0d5HPdYuvtzuR7k-EJ3fBAI36IL_EikJKuZFUD0SpVS9rLCBmTl18Azlx7D



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	-0.04	6	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.07	6	>985	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.06	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 22 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=56(LC 8)
Max Uplift 4=22(LC 4), 2=6(LC 8)
Max Grav 4=112(LC 1), 2=333(LC 1), 5=151(LC 1)

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

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



May 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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

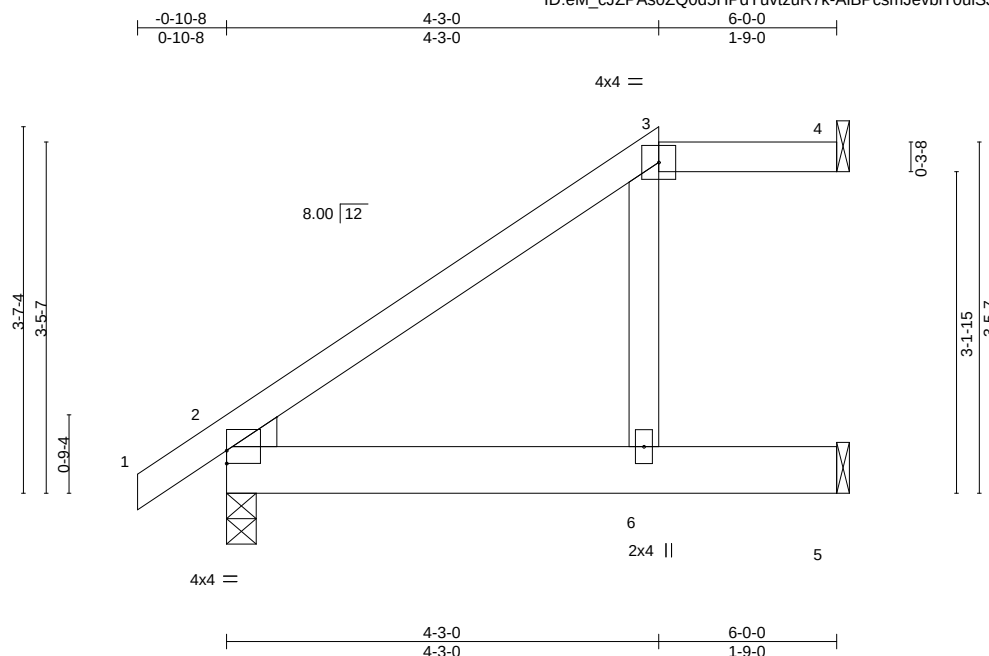


Plate Offsets (X,Y)-- [2-0-0-0-0-1-8]														
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.04	6-9	>999	240	MT20	197/144		
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.07	6-9	>999	180				
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.06	4	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 24 lb	FT = 20%		

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except
BOT CHORD	2x6 SPF No.2		2'-0"-0 oc purlins: 3'-4.
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEDGE			
Left: 2x4 SP No.3			

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=81(LC 8)
 Max Uplift 4=-11(LC 4), 5=-18(LC 8)
 Max Grav 4=59(LC 1), 2=333(LC 1), 5=204(LC 1)

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

NOTES-

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



May 10, 2021

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

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED WITHIN REFERENCE TAFE MP-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#109/mo
2783568	M5	Jack-Open	3	1	I46014593

Builders FirstSource (Valley Center),

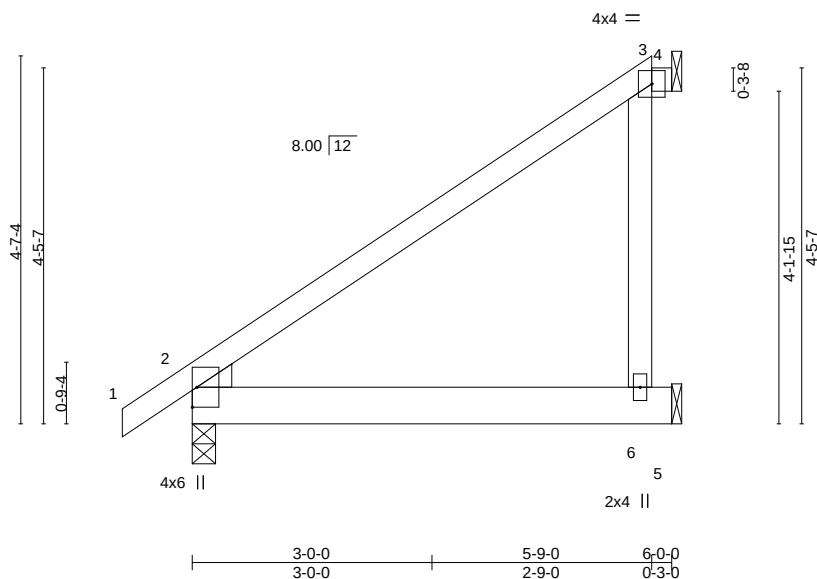
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:51 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvztuR7k-eulopCnyPDkZ5ATu?06y6sQvejVe2ideSRzhkVzlx7A

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

Scale = 1:28.8



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 0.34	Vert(LL)	-0.03	6-9	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.06	6-9	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.02	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 25 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=107(LC 8)
Max Uplift 4=-1(LC 4), 5=-48(LC 8)
Max Grav 4=7(LC 1), 2=333(LC 1), 5=256(LC 13)

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

NOTES-

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



May 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#109/mo
2783568	M6	Jack-Open	9	1	I46014594
Job Reference (optional)					

Builders FirstSource (Valley Center),

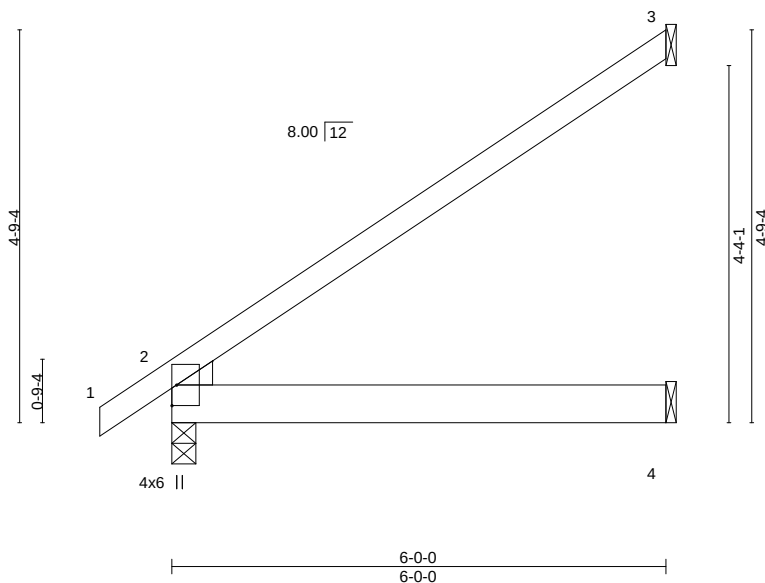
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:52 2021 Page 1

ID:eM_cJZPA0ZQ0d5HPdYuvtzR7k-64JA1YoaAXsQjK15ZkeBf3z476rmn9enh5JEHxzlx79

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

Scale = 1:28.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.36	Vert(LL)	-0.03 4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.05 4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
									Weight: 21 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x6 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.

BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=113(LC 8)

Max Uplift 3=-56(LC 8)

Max Grav 3=162(LC 13), 2=333(LC 1), 4=124(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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.
- 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.



May 10, 2021

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



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Chesterfield, MO 63017

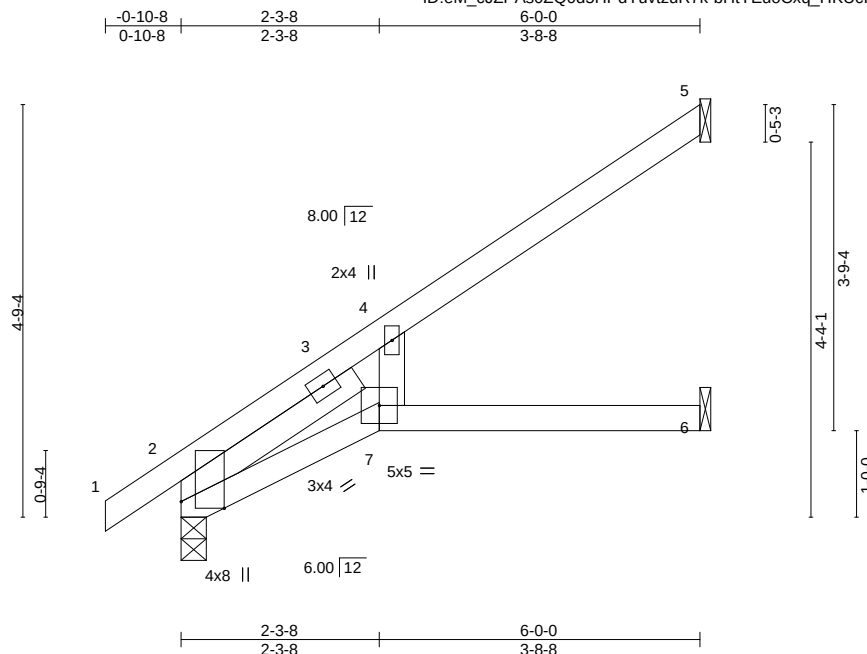
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014595
2783568	M7	Jack-Open	2	1		
Job Reference (optional)						

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:53 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvztuR7k-bHtYEu0Cxq_HKUC7R9QBHV9QWajWclwvISopOzlx78



Scale = 1:26.6

Plate Offsets (X,Y)--		[2:0-0-15,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	0.71	Vert(LL)	-0.16 7 >451	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.27 7 >262	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.13 6 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 21 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-3-8, 6=Mechanical
 Max Horz 2=113(LC 8)
 Max Uplift 5=74(LC 8)
 Max Grav 5=230(LC 13), 2=333(LC 1), 6=73(LC 3)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-323/85

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



May 10, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

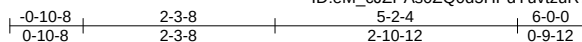
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	M8	Jack-Open	1	1	I46014596
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:53 2021 Page 1

ID: eM_cJZPAS0ZQ0d5HPdYuvztuR7k-bHtYEu0Cq_HKUcH7R9QBHVE5W8JWcuwvISopOzlx78



Scale = 1:27.5

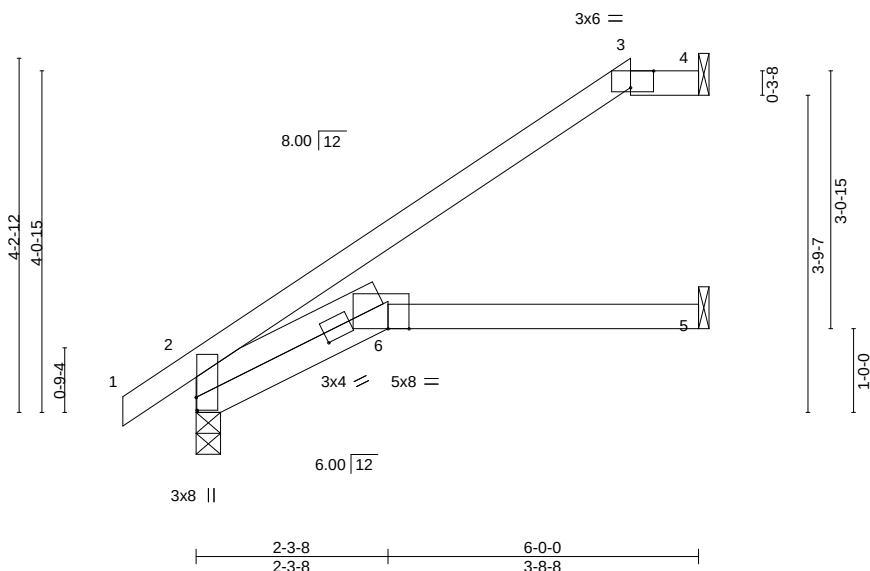


Plate Offsets (X,Y)--										[2:1-8-8,0-1-8], [2:0-1-14,0-0-2], [3:0-3-5,Edge], [6:0-3-0,0-0-0]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC	0.41	Vert(LL)	-0.06	5-6	>999	240		MT20		197/144			
TCDL	10.0	Lumber DOL		1.15		BC	0.43	Vert(CT)	-0.12	5-6	>581	180							
BCLL	0.0	Rep Stress Incr		YES		WB	0.00	Horz(CT)	0.08	4	n/a	n/a							
BCDL	10.0	Code IRC2018/TPI2014				Matrix-AS								Weight: 20 lb		FT = 20%			

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins: 3-4.
SLIDER Left 2x4 SPF No.2 -t 2-6-0	BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
 Max Horz 2=97(LC 8)
 Max Uplift 4=43(LC 8)
 Max Grav 4=172(LC 1), 2=333(LC 1), 5=115(LC 3)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



May 10, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	M9	Roof Special	1	1	I46014597
Job Reference (optional)					

Builders FirstSource (Valley Center),

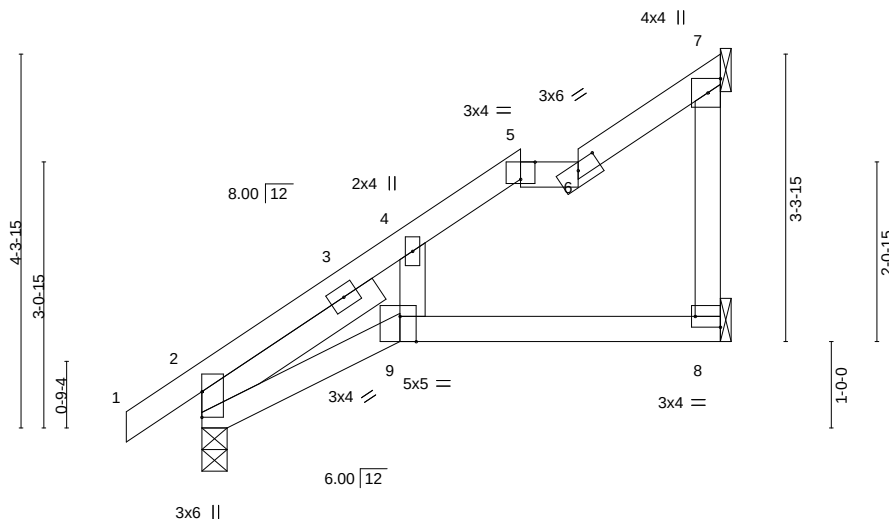
Valley Center, KS - 67147,

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ID:eM_cJZPAs0ZQ0d5HPdYuvtzur7k-3TRwSDpq868ydBTh9gfkU2PAwVmF3y48OCLLqzlx77

0-10-8	2-3-8	3-8-4	4-4-4	6-0-0
0-10-8	2-3-8	1-4-12	0-8-0	1-7-12

Scale = 1:26.7



2-3-8	3-8-4	4-4-4	6-0-0
2-3-8	1-4-12	0-8-0	1-7-12

Plate Offsets (X,Y)--	[2:Edge,0-0-0], [5:0-2-0,Edge], [6:0-3-0,0-1-0], [8:Edge,0-1-8], [9:0-2-4,Edge]			
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES
TCLL 25.0	2-0-0	TC 0.39	in (loc) l/defl L/d	MT20
TCDL 10.0	Plate Grip DOL 1.15	BC 0.35	Vert(LL) -0.05 9 >999 240	GRIP 197/144
BCLL 0.0	Lumber DOL 1.15	WB 0.01	Vert(CT) -0.08 9 >842 180	
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.04 8 n/a n/a	
	Code IRC2018/TPI2014			Weight: 24 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 8=Mechanical, 2=0-3-8, 7=Mechanical
 Max Horz 2=102(LC 5)
 Max Uplift 8=-2(LC 5), 2=-5(LC 8), 7=-31(LC 8)
 Max Grav 8=122(LC 3), 2=329(LC 1), 7=141(LC 1)

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

TOP CHORD 2-4=-343/83

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 2, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



May 10,2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014598
2783568	M10	Roof Special	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:37 2021 Page 1

ID:eM_cJZPAS0ZQ0d5HPdYuvzuR7k-3CvVtPcAiwzYP0OCB4sgYvrWE3ibmNmaEFayFJzlx70

0-10-8 2-2-4 2-10-4 6-0-0
0-10-8 2-2-4 0-8-0 3-1-12

Scale = 1:26.7

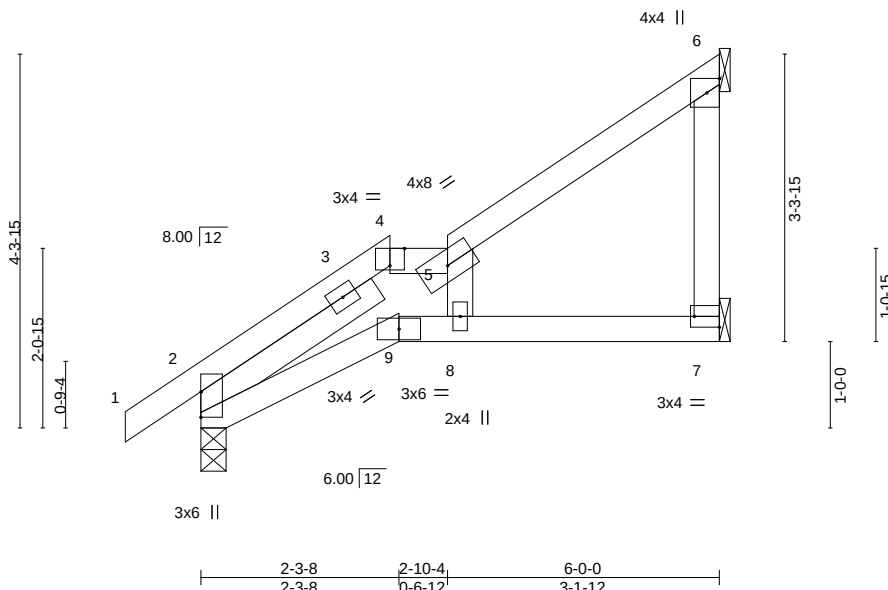


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [4:0-2-0,Edge], [7:Edge,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.05 8 >999 240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.10 8 >720 180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.05 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 24 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=102(LC 5)
Max Uplift 7=-6(LC 8), 2=-5(LC 8), 6=-28(LC 5)
Max Grav 7=136(LC 1), 2=329(LC 1), 6=125(LC 13)

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

TOP CHORD 2-4=-394/83

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



May 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#109/mo
2783568	M11	Roof Special Girder	1	1	I46014599
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:38 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvztuR7k-XOTt5ldoTD5P1AzOloOv46OhMTzqVqAjSvKVnlzlx7N



Scale = 1:25.5

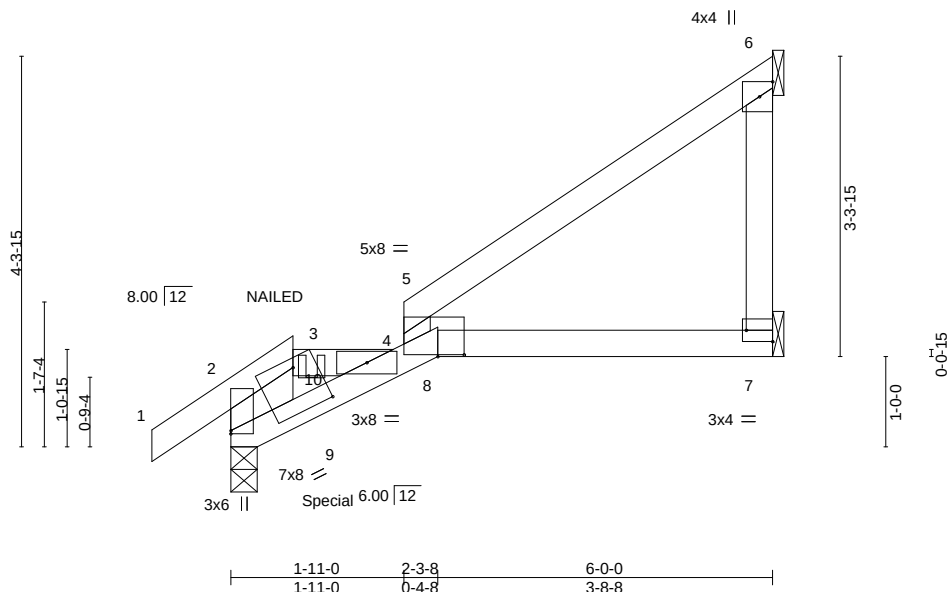


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [3:0-3-0,0-5-13], [5:0-3-8,0-0-4], [7:Edge,0-1-8]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	PLATES
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	in (loc) l/defl L/d	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(LL) -0.08 8 >882 240	GRIP 197/144
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Vert(CT) -0.14 8 >503 180	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR	Horz(CT) 0.08 7 n/a n/a	
					Weight: 21 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 0-11-8

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 7=Mechanical, 2=0-3-8
Max Horz 2=104(LC 5)
Max Uplift 6=-34(LC 5), 7=-1(LC 8), 2=-16(LC 8)
Max Grav 6=126(LC 30), 7=126(LC 3), 2=266(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7, 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 9 lb down and 40 lb up at 0-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
Vert: 1-12=-70, 3-14=-70, 3-4=-70, 5-6=-70, 8-9=-20, 7-8=-20
- Concentrated Loads (lb)
Vert: 12=33(F)



May 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

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:40 2021 Page 1
ID:eM_cJZPas0ZO0d5HPdYuyvtzuR7k-TnadWRe2rL7GU7nsCON9XT4_Hm0ziM0wDpcrezlx7L

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0-10-8	3-6-0	3-1-8

Scale = 1:14.5

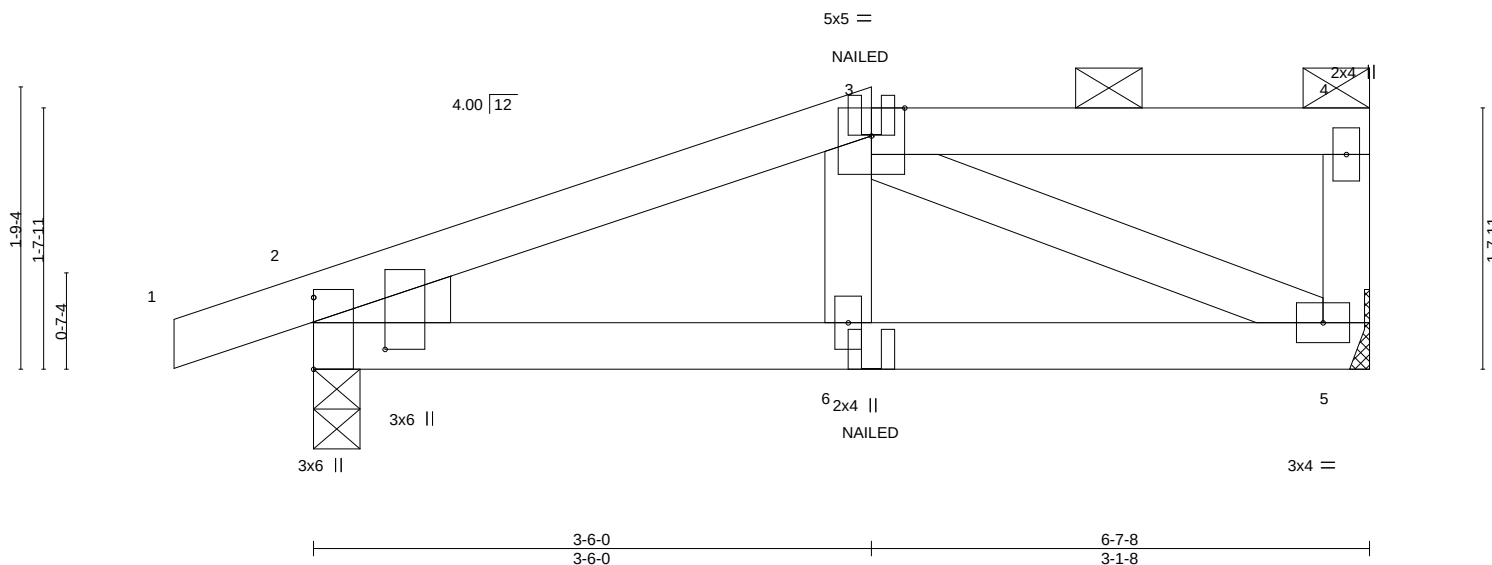


Plate Offsets (X,Y)-- [2:0-3-14,0-5-6]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.01	6-9	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 23 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=Mechanical, 2=0-3-8
Max Horz 2=42(LC 7)
Max Uplift 5=-16(LC 4), 2=-38(LC 4)
Max Grav 5=295(LC 1), 2=364(LC 1)

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

TOP CHORD 2-3=-408/19
BOT CHORD 2-6=-16/360, 5-6=-18/351
WEBS 3-5=-388/16

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-15(B)



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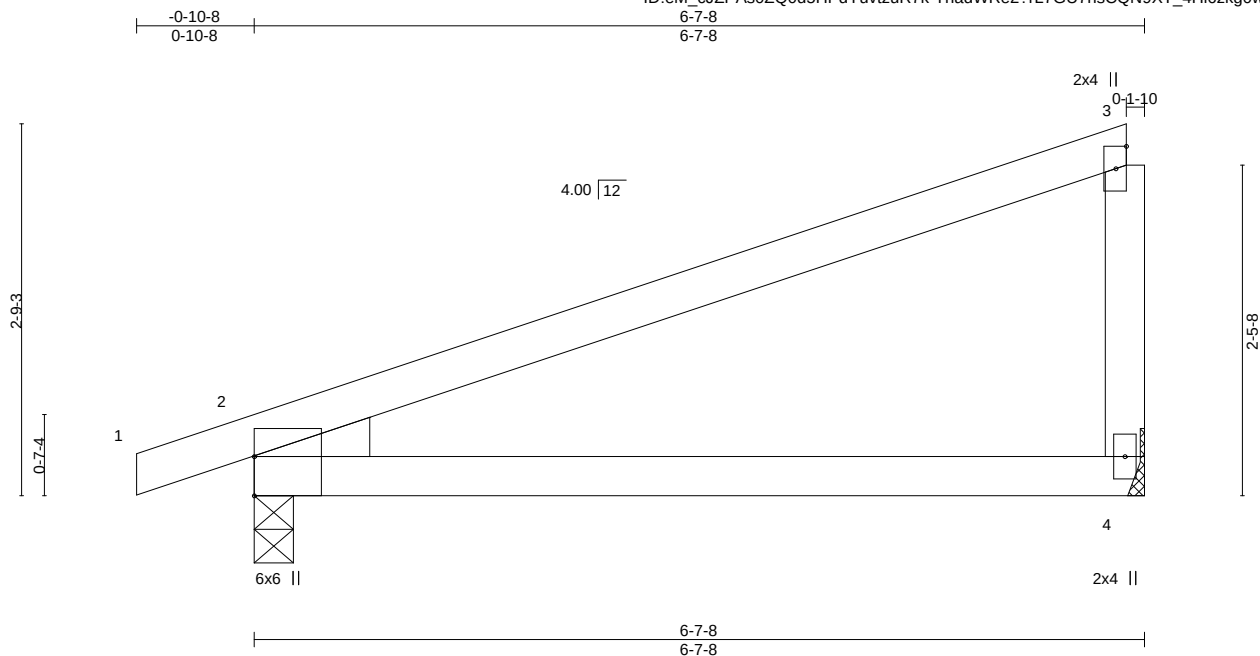
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014601
2783568	M13	MONOPITCH	8	1	Job Reference (optional)	

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

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ID:eM_cJZPA50ZQ0d5HPdYuvtzur7k-TnadWRe2?rL7GU7nsCQN9XT_4Hi6zkg0wDpcrezIx7L



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)	-0.09	4-7	>851	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) 4=Mechanical, 2=0-3-8
Max Horz 2=76(LC 7)
Max Uplift 4=22(LC 8), 2=36(LC 4)
Max Grav 4=287(LC 1), 2=357(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2783568	Truss M14	Truss Type MONOPITCH	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014602
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:41 2021 Page 1
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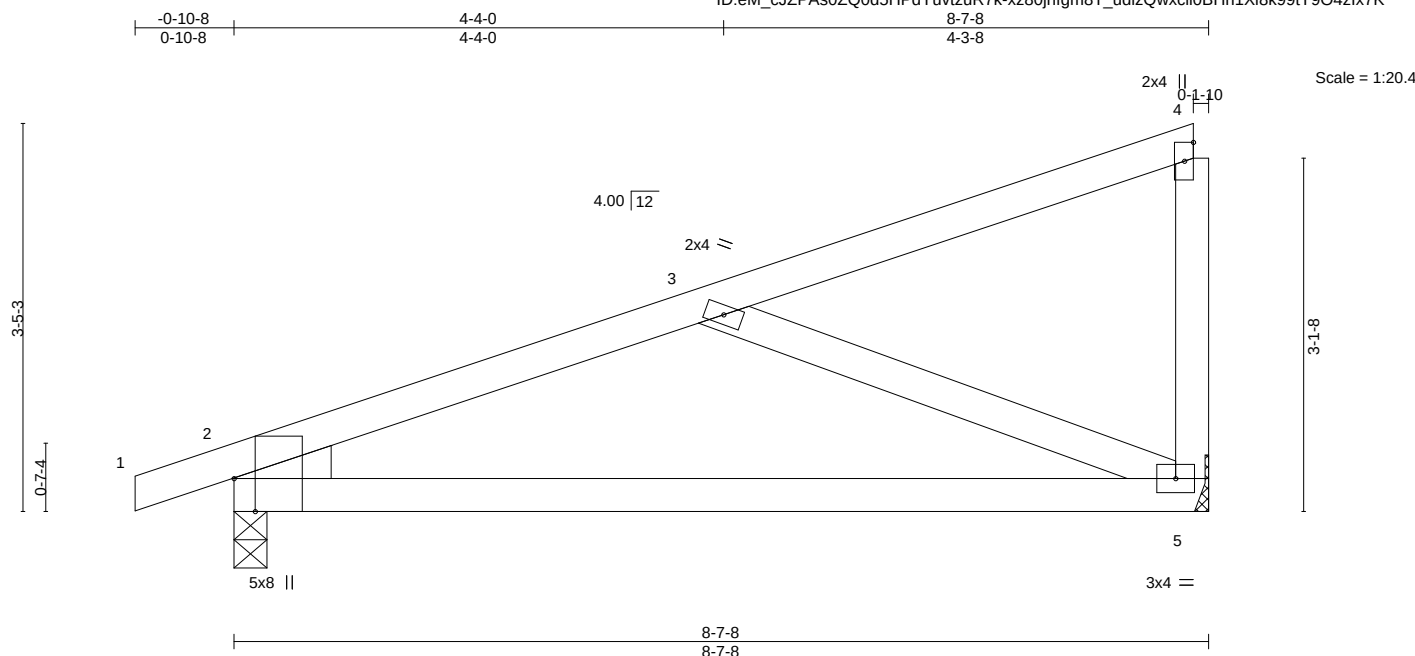


Plate Offsets (X,Y)--		[2:0-3-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.40	Vert(LL)	-0.13 5-8	>814	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.25 5-8	>406	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.01 2	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-AS						Weight: 30 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) 5=Mechanical, 2=0-3-8
Max Horz 2=96(LC 7)
Max Uplift 5=28(LC 8), 2=40(LC 4)
Max Grav 5=378(LC 1), 2=446(LC 1)

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

TOP CHORD 2-3=-549/58
BOT CHORD 2-5=-52/513
WEBS 3-5=-550/79

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	M15	Jack-Open	1	1	I46014603
Job Reference (optional)					

Builders FirstSource (Valley Center),

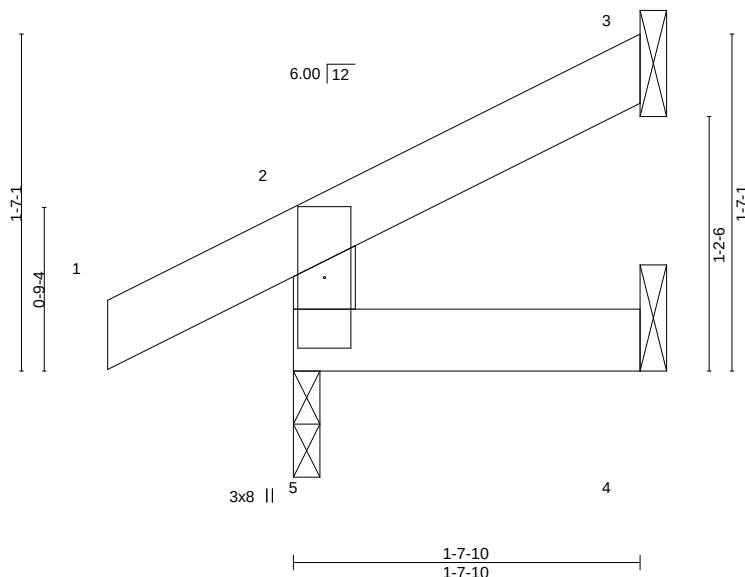
Valley Center, KS - 67147,

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ID:eM_cJZPA50ZQ0d5HPdYuvtzur7k-P9iOx7glXSbqWnHA_dSrFyYRB4UAREAJNXliWzlx7J

-0-10-8 1-7-10
0-10-8 1-7-10

Scale = 1:10.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	5	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.01	Vert(CT)	-0.00	5	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-1-8, 3=Mechanical, 4=Mechanical
Max Horz 5=29(LC 5)
Max Uplift 5=2(LC 8), 3=15(LC 8)
Max Grav 5=163(LC 1), 3=32(LC 1), 4=26(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 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

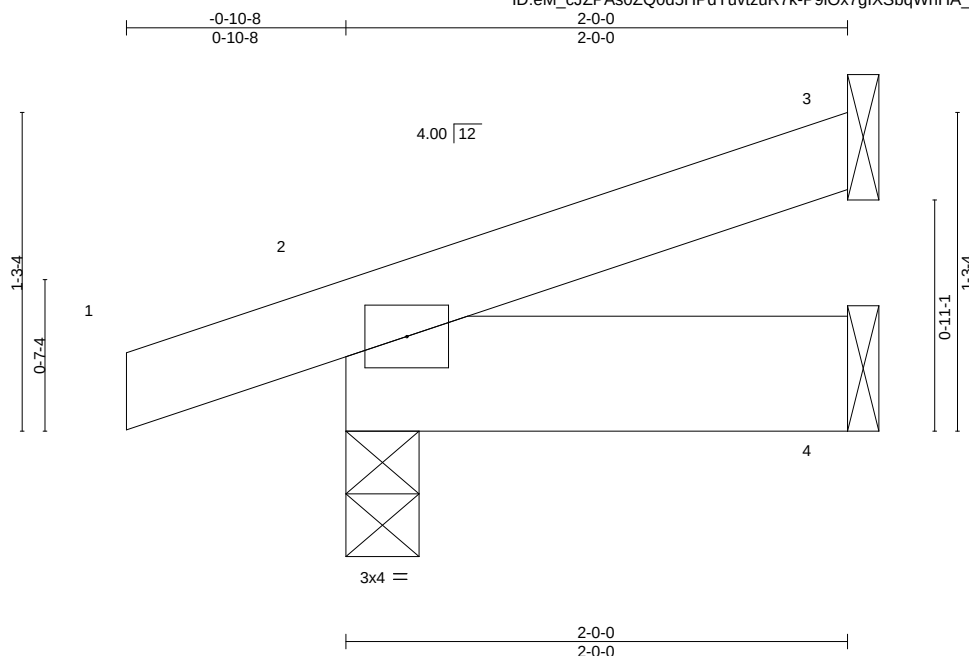
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014604
2783568	M16	Jack-Open	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:42 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYvutzuR7k-P9iOx7glXSbqWnHA_dSrFyYSV4U5ReAJNXliWzlx7J



Scale = 1:9.2

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	-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 2-0-0 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=28(LC 4)
Max Uplift 3=-10(LC 8), 2=-27(LC 4)
Max Grav 3=46(LC 1), 2=164(LC 1), 4=40(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



May 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2783568	Truss M17	Truss Type Jack-Open Girder	Qty 2	Ply 1	summit/hawthorne ridge#109/mo I46014605
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:44 2021 Page 1
ID:eM_cJZPA50ZQ0d5HPdYuvtzUR7k-LYq8LphZ23rYI5QY52UJKNdmnu6gvYgcrnp_Pzlx7H



Scale = 1:9.9

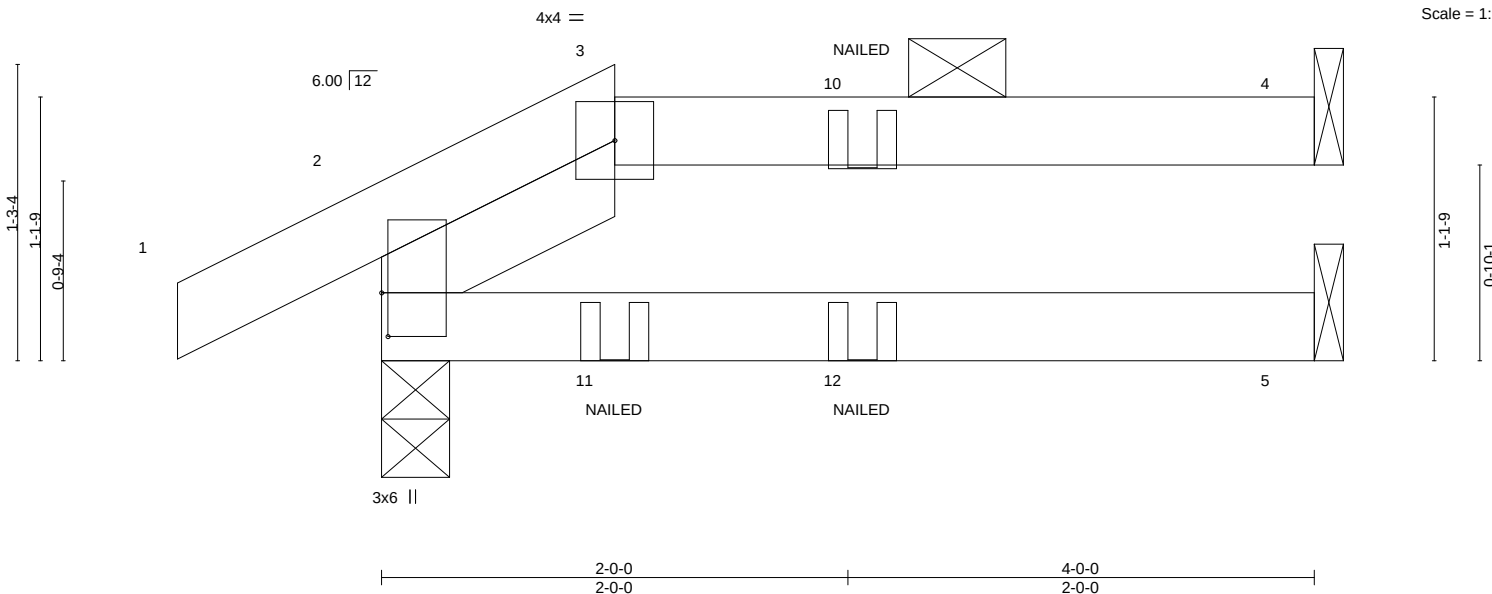


Plate Offsets (X,Y)--		[2:0-2-4,0-0-5]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.02	5-8	>999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.27	Vert(CT)	-0.04	5-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.03	4	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 12 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 1-2-4

BRACING-

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=18(LC 35)
Max Uplift 4=-20(LC 4), 2=-7(LC 8)
Max Grav 4=103(LC 1), 2=244(LC 1), 5=88(LC 3)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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, 5-6=-20
Concentrated Loads (lb)
Vert: 11=8(F) 12=-10(F)



May 10, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

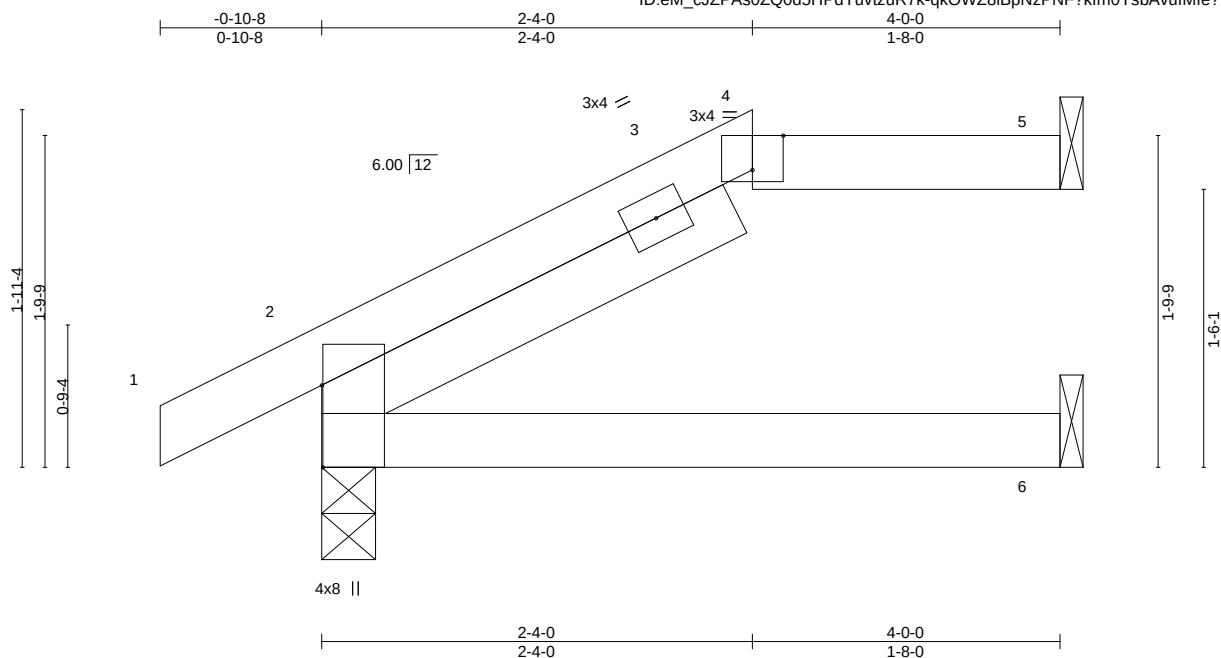
Job 2783568	Truss M18	Truss Type Jack-Open	Qty 2	Ply 1	summit/hawthorne ridge#109/mo I46014606
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:45 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvtzR7k-qkOWZ8iBpNzPNF?kfm0YsbAvuImfe?vi4VWNXrzlx7G



Scale = 1:12.5

Plate Offsets (X,Y)--		[2:0-5-5,Edge], [4:0-2-0,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30
TCDL 10.0	Lumber DOL	1.15	BC 0.60
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) -0.05 6-9 >999 240
			Vert(CT) -0.08 6-9 >589 180
			Horz(CT) 0.16 5 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 14 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins: 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 5=Mechanical, 2=0-3-8, 6=Mechanical
Max Horz 2=36(LC 8)
Max Uplift 5=-11(LC 4), 2=-8(LC 8), 6=-1(LC 8)
Max Grav 5=56(LC 1), 2=245(LC 1), 6=114(LC 1)

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

TOP CHORD 2-4=-97/497

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



May 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#109/mo	I46014607
2783568	M19	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

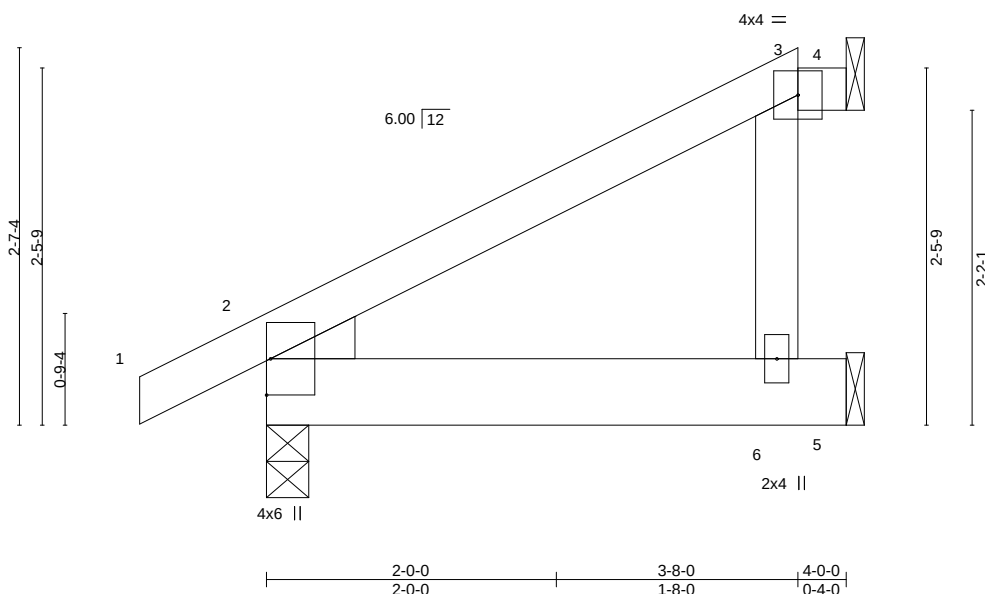
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:45 2021 Page 1

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-0-10-8 3-8-0 4-0-0
0-10-8 3-8-0 0-4-0

Scale: 3/4"=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 0.13	Vert(LL)	-0.01 6-9	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.01 6-9	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.01 4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 16 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=53(LC 8)
Max Uplift 4=-2(LC 4), 2=-4(LC 8), 5=-20(LC 8)
Max Grav 4=9(LC 1), 2=245(LC 1), 5=161(LC 1)

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

NOTES-

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



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

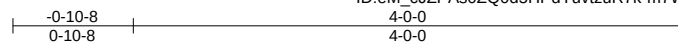
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	M20	Jack-Open	4	1	I46014608
Job Reference (optional)					

Builders FirstSource (Valley Center),

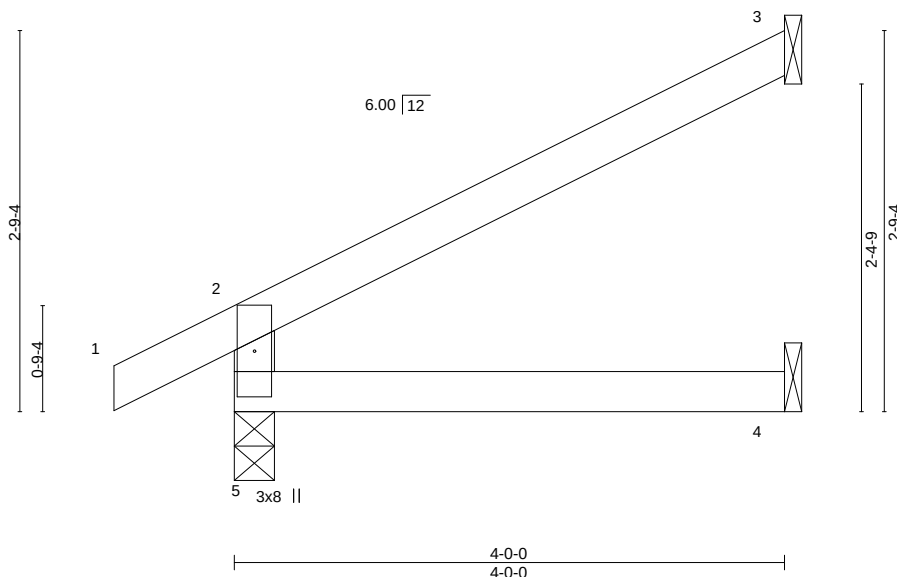
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:47 2021 Page 1

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Scale = 1:16.8



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 0.19	Vert(LL)	-0.01	4-5	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.02	4-5	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=55(LC 8)
Max Uplift 3=35(LC 8)
Max Grav 5=252(LC 1), 3=117(LC 1), 4=71(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) 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.
- 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.



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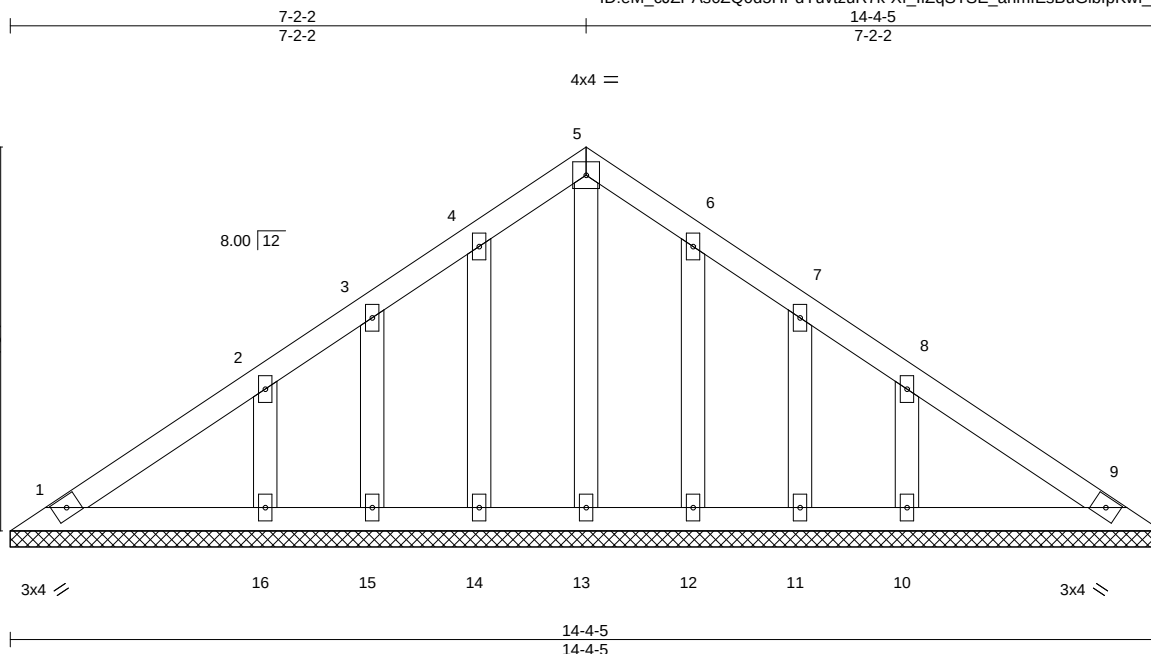
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2783568	Truss V1	Truss Type Valley	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014609
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:55 2021 Page 1
ID:eM_cJZPA50ZQ0d5HPdYuvztuR7k-Xf_lfZqSTSE_anmfEsBuGibfpKwI_W?DN2xvtGzlx76



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 56 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-4-5.
(lb) - Max Horz 1--84(LC 4)
Max Uplift All uplift 100 lb or less at joint(s) 1, 14, 15, 16, 12, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 16, 12, 11, 10

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 1, 14, 15, 16, 12, 11, 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.



May 10, 2021

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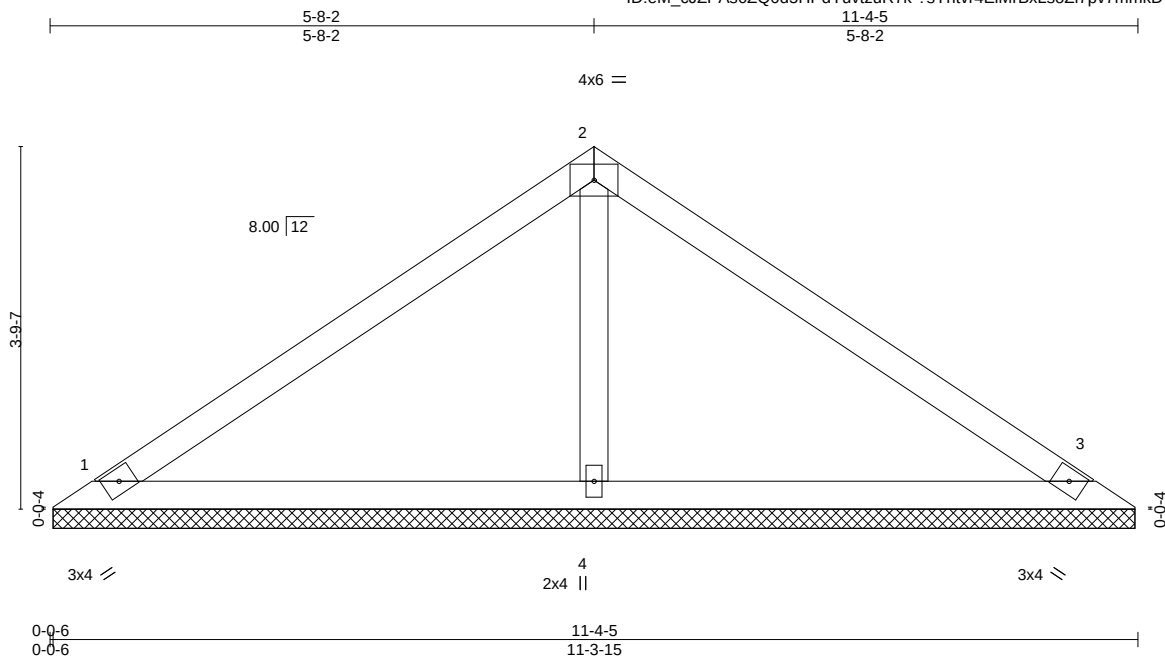
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2783568	Truss V2	Truss Type Valley	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014610
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:56 2021 Page 1
ID:eM_cJZPAs0ZQ0d5HPdYuvztuR7k-?sYhtvr4ElMrBxLsoZi7pv7mmkD7jyWNbihSQjzlx75



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 0.38	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 31 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=11-3-9, 3=11-3-9, 4=11-3-9
Max Horz 1=-65(LC 4)
Max Uplift 1=-14(LC 8), 3=-21(LC 9)
Max Grav 1=230(LC 1), 3=230(LC 1), 4=476(LC 1)

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

WEBS 2-4=-317/32

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



May 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

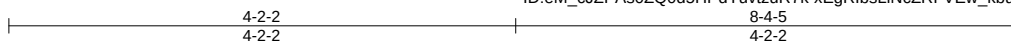
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	V3	Valley	1	1	I46014611
Job Reference (optional)					

Builders FirstSource (Valley Center),

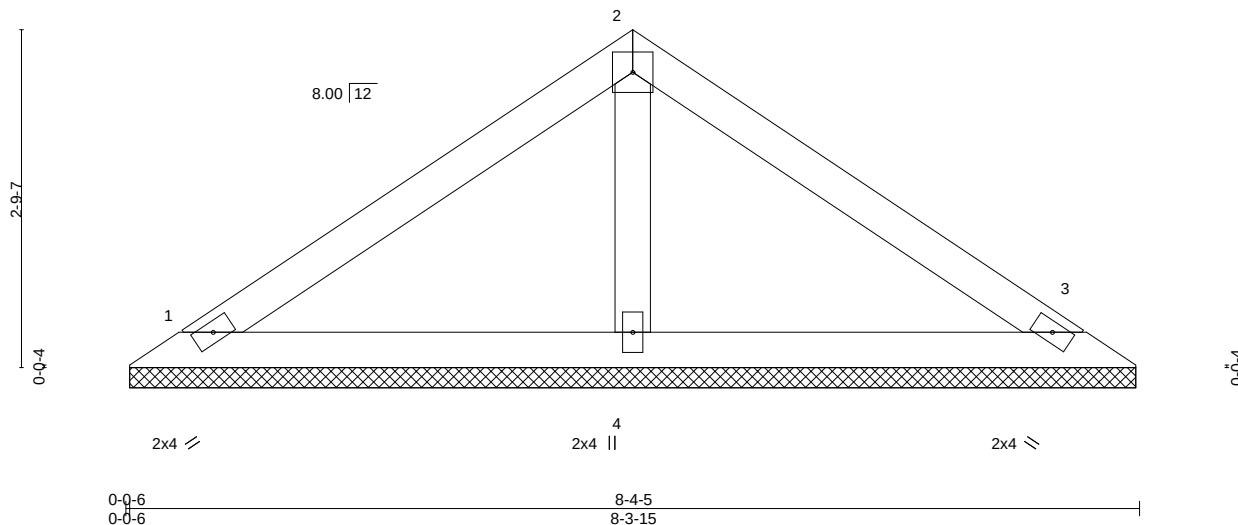
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:58 2021 Page 1

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Scale = 1:19.0



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 0.25	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	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
OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=8-3-9, 3=8-3-9, 4=8-3-9
Max Horz 1=-46(LC 4)
Max Uplift 1=-15(LC 8), 3=-20(LC 9)
Max Grav 1=180(LC 1), 3=180(LC 1), 4=305(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



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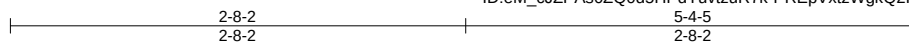
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo
2783568	V4	Valley	1	1	I46014612
Job Reference (optional)					

Builders FirstSource (Valley Center),

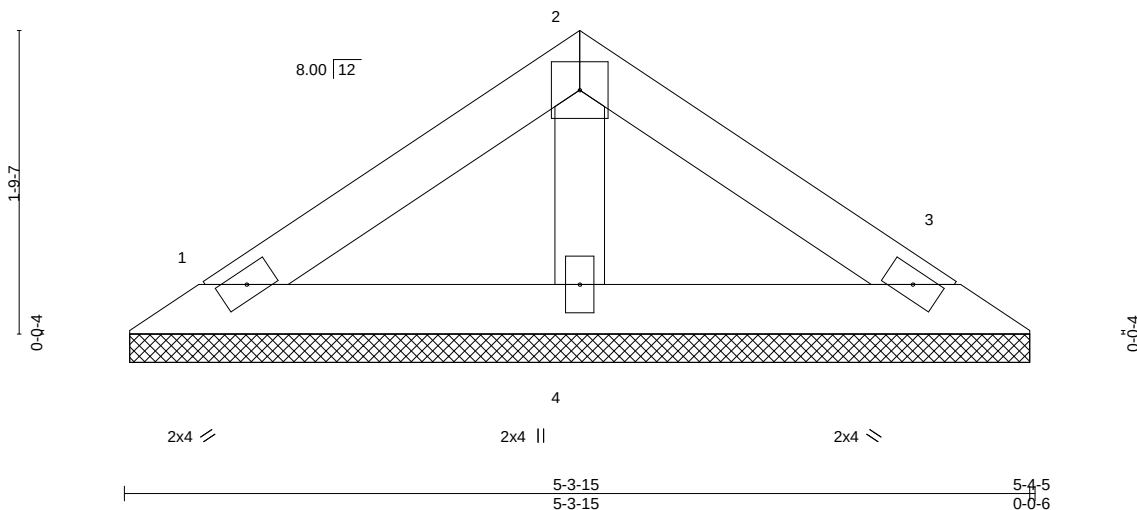
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:59 2021 Page 1
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4x4 =

Scale = 1:13.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	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
OTHERS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 1=5-3-9, 3=5-3-9, 4=5-3-9
Max Horz 1=-27(LC 4)
Max Uplift 1=-9(LC 8), 3=-12(LC 9)
Max Grav 1=107(LC 1), 3=107(LC 1), 4=181(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

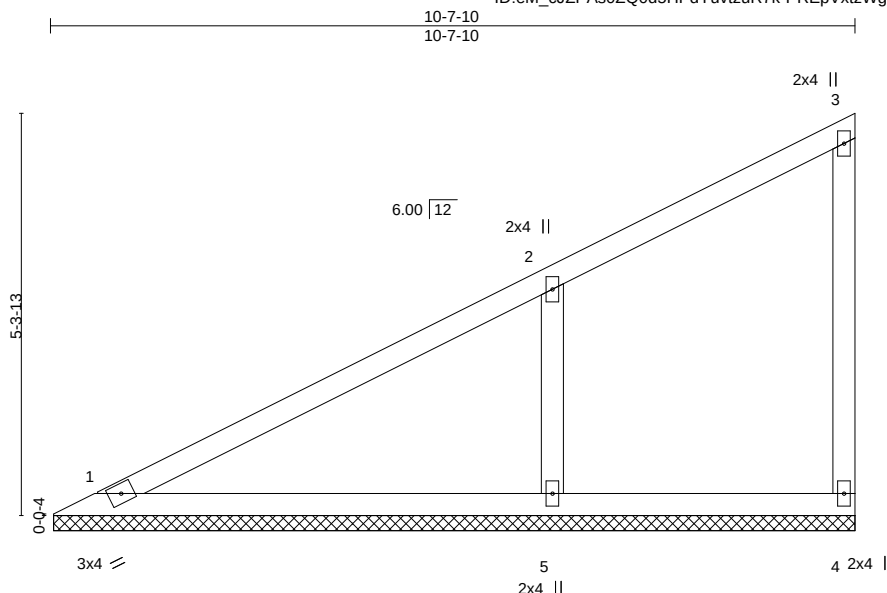
Job 2783568	Truss V5	Truss Type Valley	Qty 1	Ply 1	summit/hawthorne ridge#109/mo I46014613
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:24:59 2021 Page 1

ID:eM_cJZPAs0ZQ0d5HPdYuvztuR7k-PREpVxtzWgkQ2P4RTiGqRYIFqxYwJ6plgv601zlx72



Scale = 1:30.5

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 0.46	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 0.08	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						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

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=10-7-2, 4=10-7-2, 5=10-7-2
Max Horz 1=146(LC 5)
Max Uplift 4=-17(LC 5), 5=-73(LC 8)
Max Grav 1=219(LC 1), 4=94(LC 1), 5=575(LC 1)

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

WEBS 2-5=-432/115

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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, 5.
- 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.



May 10, 2021

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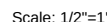
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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16023 Swingley Ridge Rd
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8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:25:00 2021 Page 1
ID:eM cJZPA0ZO0d5HPdYuvtzUR7k-tdoBiHubH sHgYfd1Pn3zIuLLctfnzyWKffZUzix71



LUMBER-

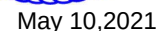
BRACING-

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.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-319/91

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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



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Chesterfield, MO 63017

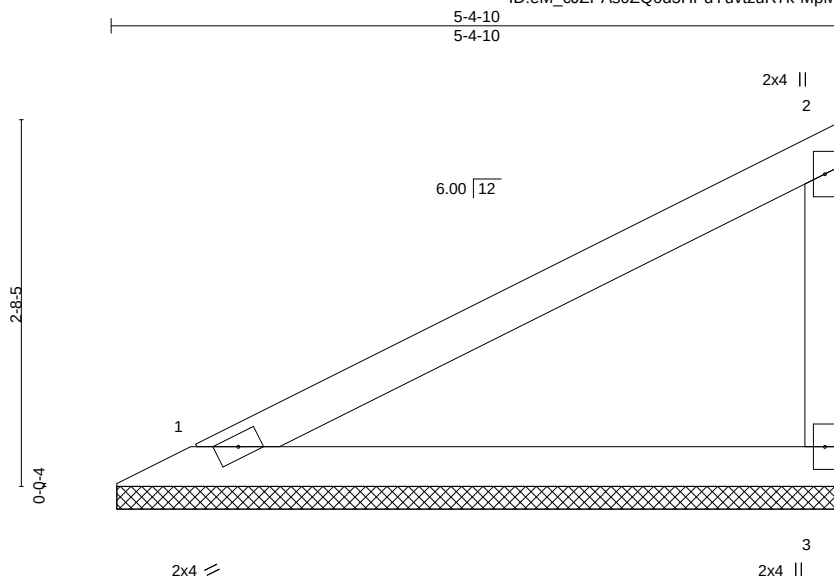
Job	Truss	Truss Type	Qty	Ply	summit/hawthorne ridge#109/mo	I46014615
2783568	V7	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:25:01 2021 Page 1

ID:eM_cJZPAs0ZQd5HPdYuvztuR7k-MpMawdvD2l_8liDpb7IIWzrc9lwROEt6l_OD5wzlx70



Scale = 1:16.9

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 0.41	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	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: 15 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-4-2, 3=5-4-2
Max Horz 1=68(LC 5)
Max Uplift 1=5(LC 8), 3=19(LC 8)
Max Grav 1=207(LC 1), 3=207(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.



May 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#109/mo
2783568	V8	Valley	1	1	I46014616
Job Reference (optional)					

Builders FirstSource (Valley Center),

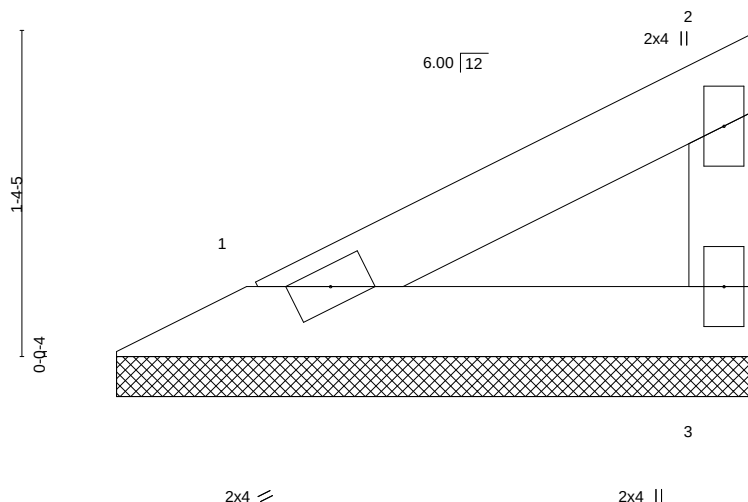
Valley Center, KS - 67147,

8.430 s Apr 20 2021 MiTek Industries, Inc. Fri May 7 09:25:01 2021 Page 1

ID:eM_cJZPA50ZQ0d5HPdYuvztuR7k-MpMawdvD2l_8liDpb7lIWzriWizKOE6l_OD5wzlx70

2-8-10
2-8-10

Scale = 1:9.6



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 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=2-8-2, 3=2-8-2
Max Horz 1=29(LC 5)
Max Uplift 1=2(LC 8), 3=8(LC 8)
Max Grav 1=87(LC 1), 3=87(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.



May 10, 2021

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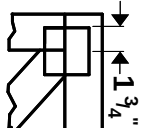
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**
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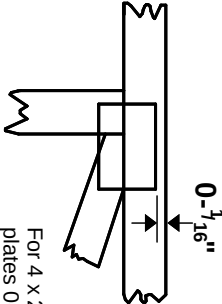
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " 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

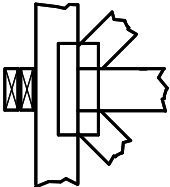
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



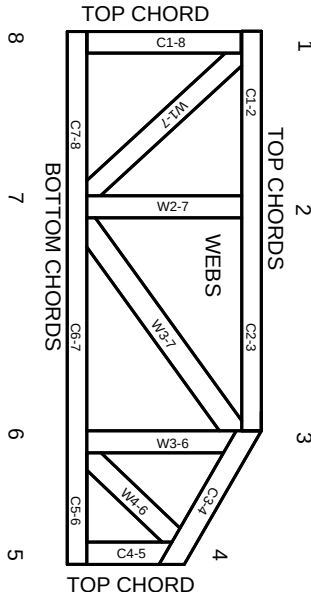
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.