



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

Re: 2630107  
Summit/41 Woodside Ridge/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: I44670969 thru I44671034

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

Missouri COA: Engineering 001193



February 4, 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.

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670969
2630107	A1	Roof Special	1	1		

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

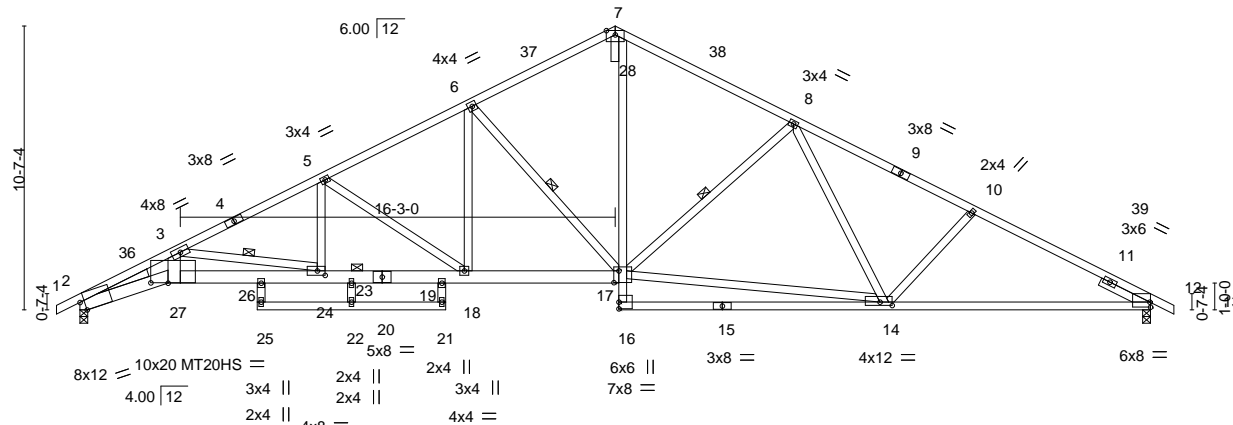
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:55:35 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-rfJl3tfqziBQQE87nKRpRRrx90uRB\_My7M2k?dzoZgM

0-10-8 3-3-8 6-7-8 9-0-3 13-8-0 14-6-1 20-0-0 26-7-14 33-3-13 40-0-0 40-10-8  
0-10-8 3-3-8 3-4-0 2-4-11 4-7-13 0-10-1 5-5-15 6-7-14 6-7-14 6-8-3 0-10-8

5x8 =

Scale = 1:86.1



3-3-8 6-7-8 9-0-3 10-1-12 13-8-0 14-6-1 20-1-10 30-0-10 40-0-0  
3-3-8 3-4-0 2-4-11 1-1-9 3-6-4 0-10-1 5-7-9 9-11-0 9-11-6

Plate Offsets (X,Y)-- [2:0-2-0,Edge], [12:Edge,0-2-4], [14:0-5-7,0-1-8], [17:0-2-4,0-5-4], [24:0-3-8,0-2-0], [27:0-7-12,0-0-2]

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 0.87	Vert(LL)	-0.31 17-18	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.85	Vert(CT)	-0.73 14-16	>660	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.93	Horz(CT)	0.36 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 215 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E \*Except\*  
7-9: 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-27,20-27: 2x6 SPF 2100F 1.8E, 17-20: 2x6 SPF No.2  
12-15: 2x4 SP 2400F 2.0E  
WEBS 2x4 SPF No.2 \*Except\*  
3-27: 2x6 SPF No.2

#### WEDGE

Left: 2x4 SP No.3

SLIDER Right 2x4 SPF No.2 2-0-0

#### REACTIONS.

(size) 2=0-3-8, 12=0-3-8  
Max Horz 2=186(LC 12)  
Max Uplift 2=317(LC 12), 12=317(LC 13)  
Max Grav 2=2270(LC 1), 12=2284(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-7259/1125, 3-5=-4737/665, 5-6=-3646/514, 6-7=-2727/460, 7-8=-2815/463,  
8-10=-3519/503, 10-12=-3827/526  
BOT CHORD 2-27=-1152/6510, 26-27=-1125/6388, 24-26=-1114/6283, 23-24=-619/4081,  
19-23=-619/4081, 18-19=-630/4187, 17-18=-376/3153, 7-17=-259/1876, 14-16=0/317,  
12-14=-365/3313  
WEBS 3-27=-192/1319, 14-17=-262/2658, 8-17=-859/312, 8-14=-54/340, 10-14=-428/218,  
6-17=-1212/312, 6-18=-118/849, 5-18=-1249/307, 5-24=-68/627, 3-24=-2236/504

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-1-9, Exterior(2R) 20-1-9 to 23-1-9, Interior(1) 23-1-9 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 27 = 8%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=317, 12=317.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2



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**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/41 Woodside Ridge/MO	I44670969
2630107	A1	Roof Special	1	1	Job Reference (optional)	

**NOTES-**

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.

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670970
2630107	A2	Roof Special	3	1		
Job Reference (optional)						

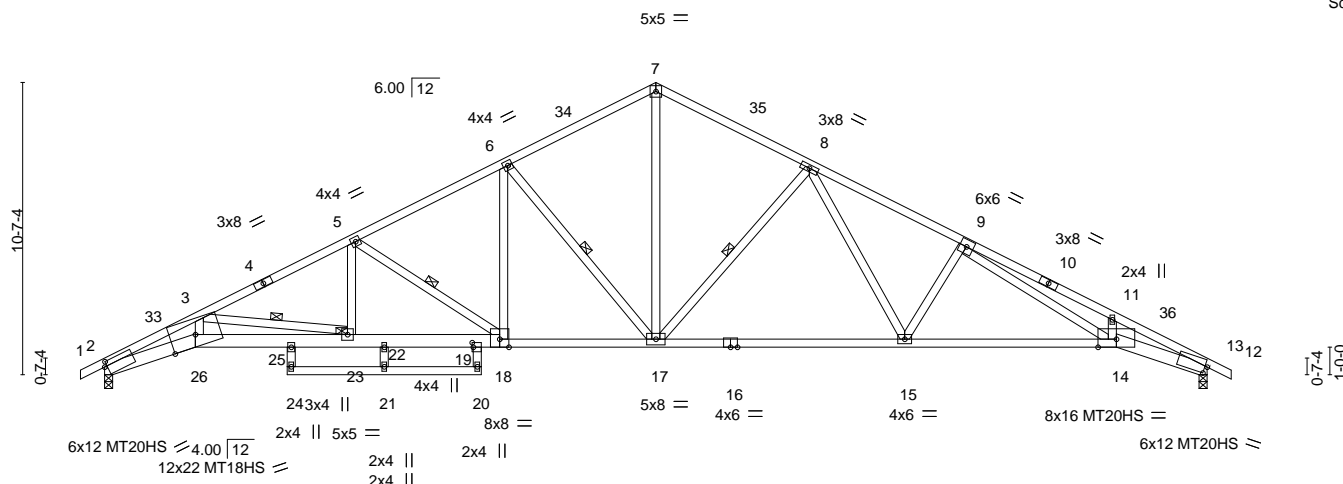
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:clow4Ylgf7iox0?ly?5BCcz33zm-Jst7HDgSk0JH2OjL1y2\_eO5VPCZwVW5M0oIY4zoZgI

0-10-8 3-3-8 6-7-8 8-11-8 13-8-0 14-5-12 20-0-0 25-6-13 31-1-11 36-8-8 40-0-0 40-10-8  
0-10-8 3-3-8 3-4-0 2-4-0 4-8-8 0-9-12 5-6-4 5-6-13 5-6-13 5-6-13 3-3-8 0-10-8

Scale = 1:83.6



	3-3-8	6-7-8	8-11-8	10-1-12	13-8-0	14-5-12	20-0-0	29-0-5	36-8-8	40-0-0
	3-3-8	3-4-0	2-4-0	1-2-4	3-6-4	0-9-12	5-6-4	9-0-5	7-8-3	3-3-8
Plate Offsets (X,Y)--	[2:0-1-3,0-2-1], [12:0-1-0,0-3-0], [19:0-2-0,0-0-8]									

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.90	Vert(LL)	-0.37 14-15	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.87 14-15	>554	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.68	Horz(CT)	0.49 12	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 213 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-26,18-26,12-14: 2x6 SPF 2100F 1.8E, 14-16: 2x4 SPF 1650F 1.5E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 8-17, 6-17, 5-18, 3-23  
JOINTS 1 Brace at Jt(s): 23

#### REACTIONS.

(size) 2=0-3-8, 12=0-3-8  
Max Horz 2=184(LC 12)  
Max Uplift 2=317(LC 12), 12=317(LC 13)  
Max Grav 2=2279(LC 1), 12=2279(LC 1)

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

TOP CHORD 2-3=-7385/1139, 3-5=-4808/670, 5-6=-3649/516, 6-7=-2787/463, 7-8=-2788/462,  
8-9=-4245/585, 9-11=-7279/1030, 11-12=-7434/926  
BOT CHORD 2-26=-1163/6621, 25-26=-1106/6281, 23-25=-1094/6160, 22-23=-623/4134,  
19-22=-623/4134, 18-19=-635/4238, 17-18=-374/3138, 15-17=-241/3134,  
14-15=-399/4173, 12-14=-779/6668  
WEBS 3-26=-195/1350, 7-17=-257/1893, 8-17=-1139/320, 8-15=-185/1170, 9-15=-944/272,  
9-14=-456/2787, 6-17=-1153/321, 6-18=-128/787, 5-18=-1344/315, 5-23=-76/719,  
3-23=-2054/477

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-0-0, Exterior(2R) 20-0-0 to 23-0-0, Interior(1) 23-0-0 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Bearing at joint(s) 2, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=317, 12=317.
- This truss 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.



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670971
2630107	A3	Hip	1	1		

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

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ID:clow4YlGf7iox0?ly?5BCcz33zm-FE?uiuhjGdZ?HhtiTS\_W33TTgDuxOPGOpKHPcyzoZgJ

Job Reference (optional)

-0-10-8 3-3-8 6-7-8 10-8-4 13-8-0 14-3-4 18-0-0 22-0-0 29-4-4 36-8-8 40-0-0 40-10-8  
0-10-8 3-3-8 3-4-0 4-0-12 2-11-12 0-7-4 3-8-12 4-0-0 7-4-4 7-4-4 3-3-8 0-10-8

Scale = 1:84.7

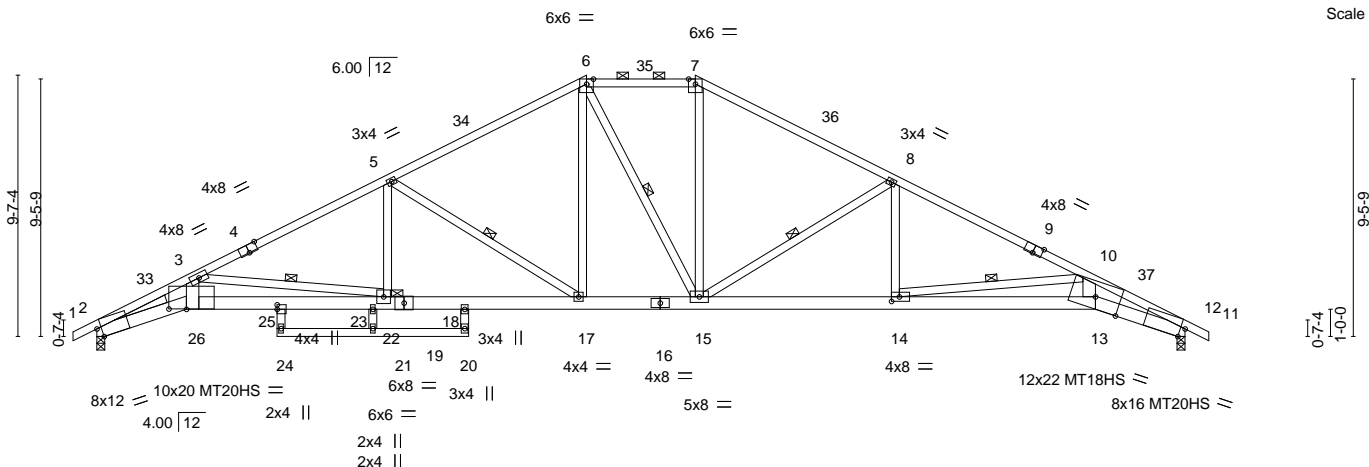


Plate Offsets (X,Y)--	[2:0-2-0,Edge], [4:0-4-0,Edge], [9:0-4-0,Edge], [11:0-2-0,Edge], [14:0-3-8,0-2-0], [25:0-2-0,0-0-0], [26:0-7-12,0-0-2]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.79	Vert(LL)	-0.36	17	>999	240	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.79	13-14	>609	180	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.50	11	n/a	n/a	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 213 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E \*Except\*  
6-7: 2x4 SPF No.2  
BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
24-25,20-24,18-20: 2x4 SPF No.2, 16-19: 2x6 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
3-26,10-13: 2x6 SPF No.2  
WEDGE  
Left: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (3-3-4 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-22, 6-15, 8-15, 10-14, 5-17  
JOINTS 1 Brace at Jt(s): 22

#### REACTIONS.

(size) 2=0-3-8, 11=0-3-8  
Max Horz 2=165(LC 12)  
Max Uplift 2=321(LC 12), 11=321(LC 13)  
Max Grav 2=2279(LC 1), 11=2279(LC 1)

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

TOP CHORD 2-3=-7344/1131, 3-5=-4449/613, 5-6=-3185/487, 6-7=-2693/479, 7-8=-3183/485,  
8-10=-4503/577, 10-11=-7544/978  
BOT CHORD 2-26=-1140/6597, 25-26=-1117/6479, 23-25=-1092/6337, 22-23=-1092/6337,  
18-22=-519/3763, 17-18=-544/3907, 15-17=-235/2694, 14-15=-379/3957,  
13-14=-793/6332, 11-13=-830/6787  
WEBS 3-26=-177/1354, 3-22=-2597/579, 6-17=-148/875, 6-15=-251/245, 7-15=-121/863,  
8-15=-1475/351, 8-14=-18/678, 10-14=-2397/450, 10-13=-105/1431, 5-17=-1419/364,  
5-22=-29/645

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 18-0-0, Exterior(2E) 18-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-2-15, Interior(1) 26-2-15 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- The Fabrication Tolerance at joint 26 = 4%
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=321, 11=321.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	I44670971
2630107	A3	Hip	1	1	Job Reference (optional)	

- NOTES-**
- 10) 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670972
2630107	A4	Hip	1	1	Job Reference (optional)	

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

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ID:clow4Y1gf7iox0?ly?5BCcz33zm-Bd7e6ajzoFpJW?05at0\_8UZqw1bvsMKHemVhrzoZgH

0-10-8 3-3-8 6-7-8 9-8-12 13-8-0 16-0-0 24-0-0 30-4-4 36-8-8 40-0-0 40-10-8  
0-10-8 3-3-8 3-4-0 3-1-4 3-11-4 2-4-0 8-0-0 6-4-4 6-4-4 3-3-8 0-10-8

Scale = 1:85.7

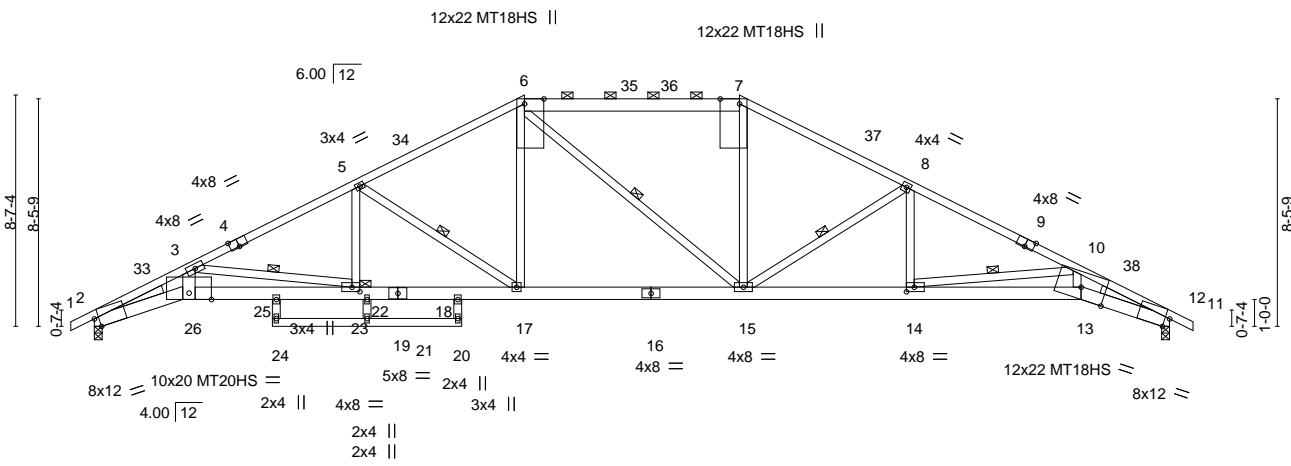


Plate Offsets (X,Y)--	[2:0-2-0,Edge], [4:0-4-0,Edge], [6:0-2-4,Edge], [7:0-2-4,Edge], [9:0-4-0,Edge], [11:0-2-0,Edge], [14:0-3-8,0-2-0], [23:0-3-8,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.35 15-17	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.79 15-17	>609	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.48 11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 214 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF 1650F 1.5E *Except* 6-7: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-0-7 max.): 6-7.
BOT CHORD 2x6 SPF 2100F 1.8E *Except* 24-25,20-24,18-20: 2x4 SPF No.2, 16-19: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2 *Except* 3-26: 2x6 SPF No.2	WEBS 1 Row at midpt 6-15, 8-15, 10-14, 5-17, 3-23
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	JOINTS 1 Brace at Jt(s): 23

<b>REACTIONS.</b>	(size) 2=0-3-8, 11=0-3-8 Max Horz 2=147(LC 12) Max Uplift 2=319(LC 12), 11=319(LC 13) Max Grav 2=2279(LC 1), 11=2279(LC 1)
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<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7320/1096, 3-5=-4609/634, 5-6=-3485/507, 6-7=-2996/495, 7-8=-3487/506, 8-10=-4682/597, 10-11=-7449/956
BOT CHORD	2-26=-1087/6570, 25-26=-1064/6449, 23-25=-1052/6324, 22-23=-544/3935, 18-22=-544/3935, 17-18=-556/4062, 15-17=-282/2995, 14-15=-408/4127, 13-14=-779/6358, 11-13=-809/6691
WEBS	3-26=-170/1344, 6-17=-116/849, 6-15=-253/256, 7-15=-81/845, 8-15=-1329/315, 8-14=-36/658, 10-14=-2255/407, 10-13=-103/1353, 5-17=-1261/327, 5-23=-51/605, 3-23=-2418/514

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-8 to 2-1-8, Interior(1) 2-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 20-2-15, Interior(1) 20-2-15 to 24-0-0, Exterior(2R) 24-0-0 to 28-2-15, Interior(1) 28-2-15 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - The Fabrication Tolerance at joint 6 = 16%, joint 7 = 16%, joint 26 = 4%
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=319, 11=319.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conforms to ANSI/TPI 1.



February 4, 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



Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	I44670972
2630107	A4	Hip	1	1	Job Reference (optional)	

- NOTES-**
- 10) 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670973
2630107	A5	Hip	1	1	Job Reference (optional)	

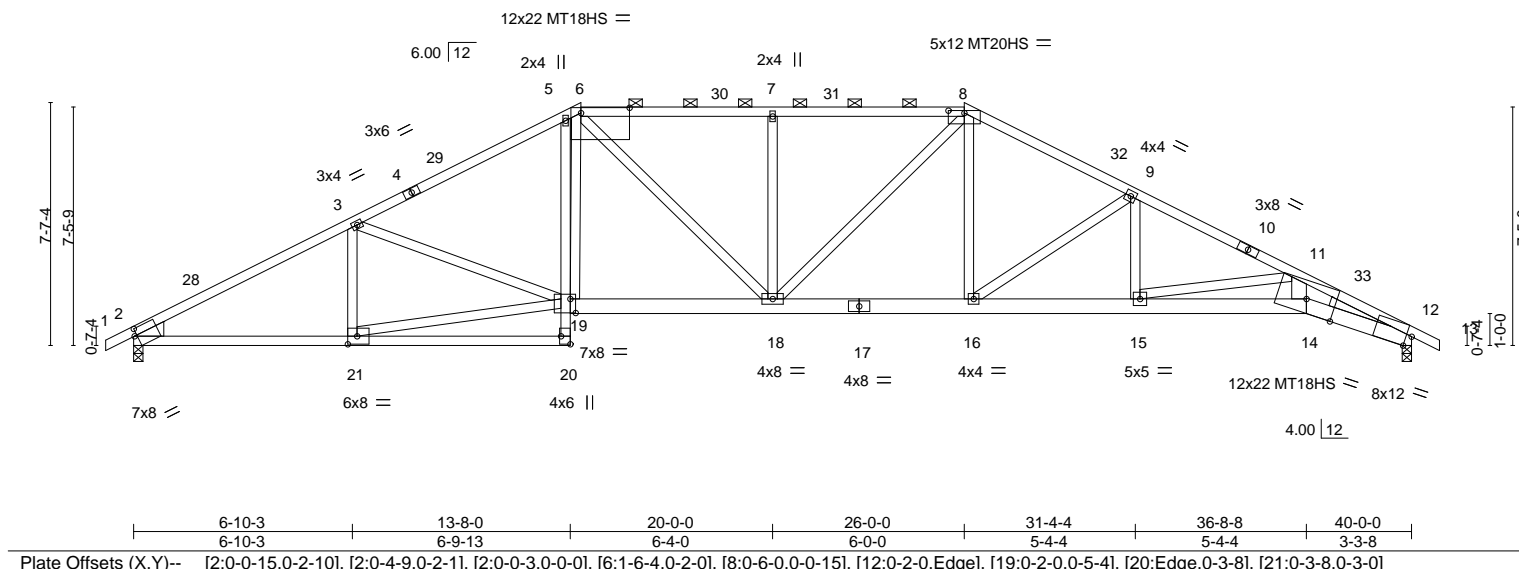
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:55:42 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-80EOXGIDKs3RmJATil3SDve6uqHfKA3\_kyFcljzoZgF

-0-10-8	6-10-3	13-8-0	14-0-0	20-0-0	26-0-0	31-4-4	36-8-8	40-0-0	40-10-8
0-10-8	6-10-3	6-9-13	0-4-0	6-0-0	6-0-0	5-4-4	5-4-4	3-3-8	0-10-8

Scale = 1:72.1



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 0.97	Vert(LL)	-0.31 16-18	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.68 16-18	>705	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.31 12	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 207 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
10-13: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
2-20: 2x4 SP 2400F 2.0E, 5-20: 2x4 SPF No.2, 17-19: 2x6 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
11-14: 2x6 SPF No.2

#### WEDGE

Left: 2x6 SPF No.2, Right: 2x4 SP No.3

#### REACTIONS.

(size) 2=0-3-8, 12=0-3-8  
Max Horz 2=129(LC 12)  
Max Uplift 2=329(LC 12), 12=329(LC 13)  
Max Grav 2=2279(LC 1), 12=2279(LC 1)

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

TOP CHORD 2-3=-3935/548, 3-5=-3831/547, 5-6=-3583/587, 6-7=-3672/550, 7-8=-3672/549,  
8-9=-3780/529, 9-11=-4892/652, 11-12=-7390/980  
BOT CHORD 2-21=-515/3394, 20-21=-29/318, 18-19=-358/3259, 16-18=-262/3278, 15-16=-438/4332,  
14-15=-784/6204, 12-14=-828/6630  
WEBS 3-21=-462/139, 19-21=-492/3117, 6-19=-183/699, 6-18=-162/745, 7-18=-646/200,  
8-18=-164/733, 8-16=-105/766, 9-16=-1253/276, 9-15=-50/697, 11-15=-1905/353,  
11-14=-117/1323

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 26-0-0, Exterior(2R) 26-0-0 to 30-2-15, Interior(1) 30-2-15 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Bearing at joint(s) 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=329, 12=329.
- 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 sheathing be applied directly to the bottom chord.



February 4, 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/41 Woodside Ridge/MO	I44670973
2630107	A5	Hip	1	1	Job Reference (optional)	

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

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670974
2630107	A6	Hip	1	1		

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

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ID:clow4Ylgf7iox0?ly?5BCcz33zm-4OM9yymUsTJ9?cKspj5wJKjU3ezPo7oGCFkjqcz0ZgD

Job Reference (optional)

0-10-8 1-7-8 2-3-8 7-1-12 12-0-0 20-0-0 28-0-0 32-4-4 36-8-8 40-0-0 40-10-8  
0-10-8 1-7-8 0-8-0 4-10-4 4-10-4 8-0-0 8-0-0 4-4-4 4-4-4 3-3-8 0-10-8

Scale = 1:74.1

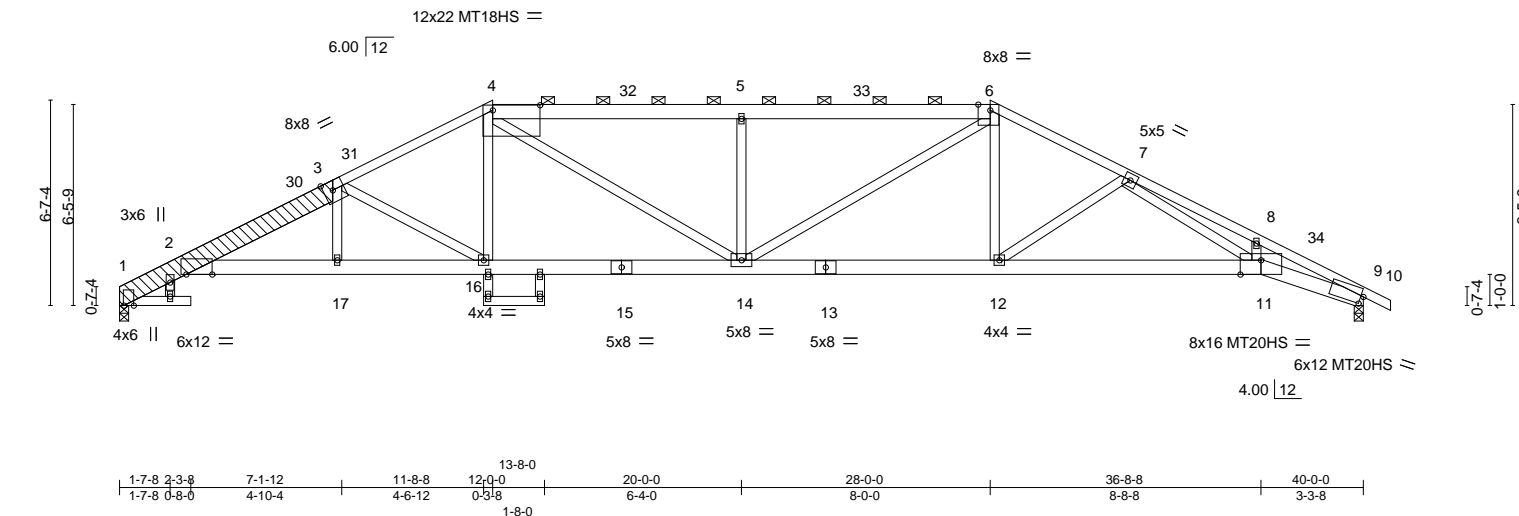


Plate Offsets (X,Y)-- [2:0-10-0,0-0-0], [3:0-3-8,Edge], [4:1-6-4,0-2-0], [6:0-4-10,Edge], [9:0-1-0,0-3-0], [11:0-8-0,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.32	11-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.74	11-12	>650	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.66	Horz(CT)	0.38	9	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 238 lb FT = 20%		

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-6: 2x6 SPF No.2, 6-10: 2x4 SP 2400F 2.0E, 1-3: 2x8 SP 2400F 2.0E  
BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
18-19,21-22: 2x4 SPF No.2, 13-15: 2x6 SPF No.2  
WEBS 2x4 SPF No.2  
OTHERS 2x8 SP 2400F 2.0E  
LBR SCAB 1-3 2x8 SP 2400F 2.0E one side

#### BRACING-

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

#### REACTIONS.

(size) 1=0-3-8, 9=0-3-8  
Max Horz 1=-116(LC 17)  
Max Uplift 1=-300(LC 12), 9=-331(LC 13)  
Max Grav 1=2215(LC 1), 9=2273(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-981/185, 2-3=-5115/721, 3-4=-4137/583, 4-5=-4482/626, 5-6=-4482/626,  
6-7=-4196/575, 7-8=-7172/1032, 8-9=-7374/953  
BOT CHORD 2-17=-674/4734, 16-17=-674/4748, 14-16=-414/3608, 12-14=-313/3667, 11-12=-495/4443,  
9-11=-799/6597  
WEBS 4-16=-76/738, 4-14=-253/1196, 5-14=-963/287, 6-14=-250/1134, 6-12=-85/849,  
7-12=-914/245, 7-11=-365/2410, 3-17=0/279, 3-16=-1266/293

#### NOTES-

- Attached 7-11-3 scab 1 to 3, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 3-2-15 from end at joint 3, nail 2 row(s) at 2" o.c. for 3-0-5; starting at 0-0-15 from end at joint 3, nail 2 row(s) at 7" o.c. for 2-0-0.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-0-11, Interior(1) 3-0-11 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 28-0-0, Exterior(2R) 28-0-0 to 32-5-7, Interior(1) 32-5-7 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 1, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=300, 9=331.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2



February 4, 2021

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

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670974
2630107	A6	Hip	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:55:44 2021 Page 2  
ID:clow4Yl9f7iox0?ly?5BCcz33zm-4OM9yymUsTJ9?cKspj5wJKjU3ezPo7oGCFkjqczoZgD

NOTES-

- 11) 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.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

 **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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:55:45 2021 Page 1  
ID:clow4Ylqf7iox0?lvz5BCcz33zm-YbwXAIn6dnR0dmv2NQc9rYGfR2M XXTQQvTGM2zoZgC

-0-10-8	2-3-8	5-10-5	10-0-0	16-3-1	22-4-7	28-4-0	30-0-0	34-11-13	40-0-0	40-10-8
0-10-8	2-3-8	3-6-13	4-1-11	6-3-1	6-1-5	5-11-9	1-8-0	4-11-13	5-0-3	0-10-8

Scale = 1:72.3

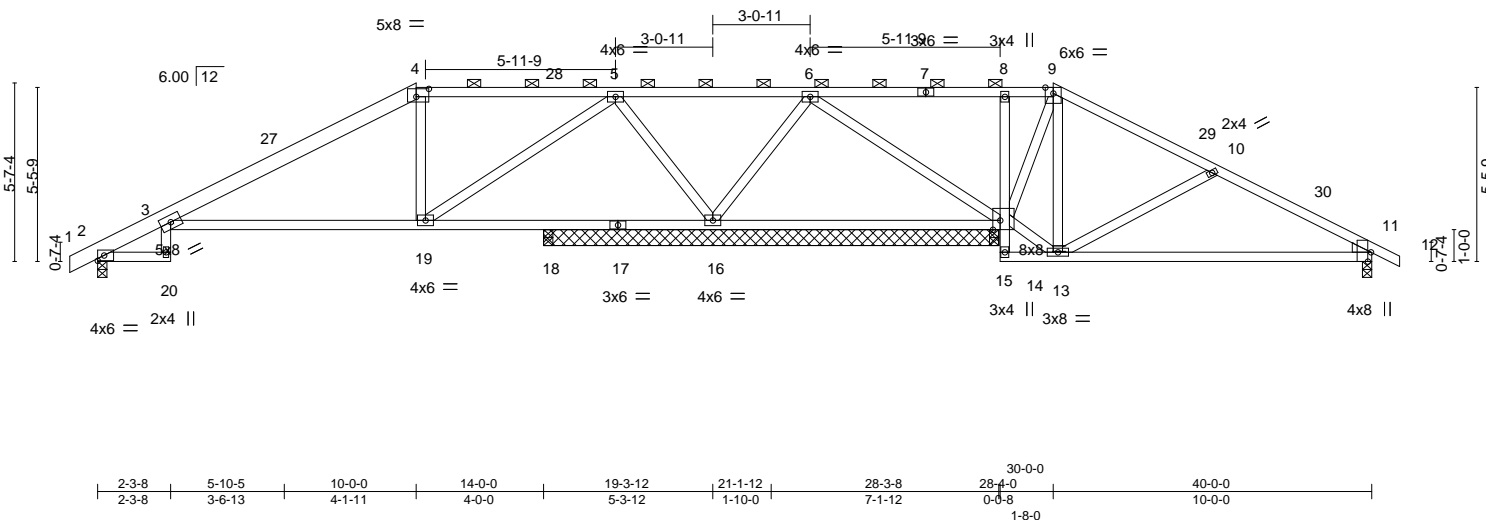


Plate Offsets (X,Y)-- [4:0-4-12,0-3-0], [11:0-0-1,0-0-3], [11:0-0-3,0-5-0], [11:0-3-8,Edge], [15:0-2-12,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.25	3-19	>668	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.60	3-19	>282	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.22	18	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 162 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-4: 2x6 SPF No.2, 4-7: 2x4 SPF 1650F 1.5E

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 2-0-0 oc purlins (6-0-0 max.): 4-9.
BOT CHORD	Rigid ceiling directly applied.

**REACTIONS.**

**INS.** All bearings 0-3-8 except (jt=length) 16=14-3-8, 15=14-3-8, 15=14-3-8.  
**(lb) -** Max Horz 2=97(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 2 except 11=123(LC 13), 16=417(LC 9), 15=208(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 18 except 2=586(LC 25), 11=590(LC 26), 16=3008(LC 25), 15=674(LC 26), 15=375(LC 1)

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

TOP CHORD 3-22=-269/122, 3-4=-159/293, 5-6=-437/2500, 6-8=-50/381, 8-9=-48/400,  
10-11=-569/171

BOT CHORD 18-19=-1413/389, 16-18=-1413/389, 15-16=-1515/392, 8-15=-407/140, 13-14=-258/0,  
11-13=-74/476

WEBS 4-19=-772/212, 5-19=-304/1669, 5-16=-1839/332, 6-16=-1706/279, 6-15=-268/1429,  
13-15=-10/345, 9-15=-830/193, 9-13=-107/499, 10-13=-578/209

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 30-0-0, Exterior(2R) 30-0-0 to 34-2-15, Interior(1) 34-2-15 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 11=123, 16=417, 15=208.
- 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.



February 4, 2021

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

**WARNING:** Velly design parameters and READ NOTES ON THIS AND INCLUDED WITHIN KEY REFERENCE PAGE MM1473 (Rev. 3/15/2020) 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670976
2630107	A8	Hip	1	1	Job Reference (optional)	

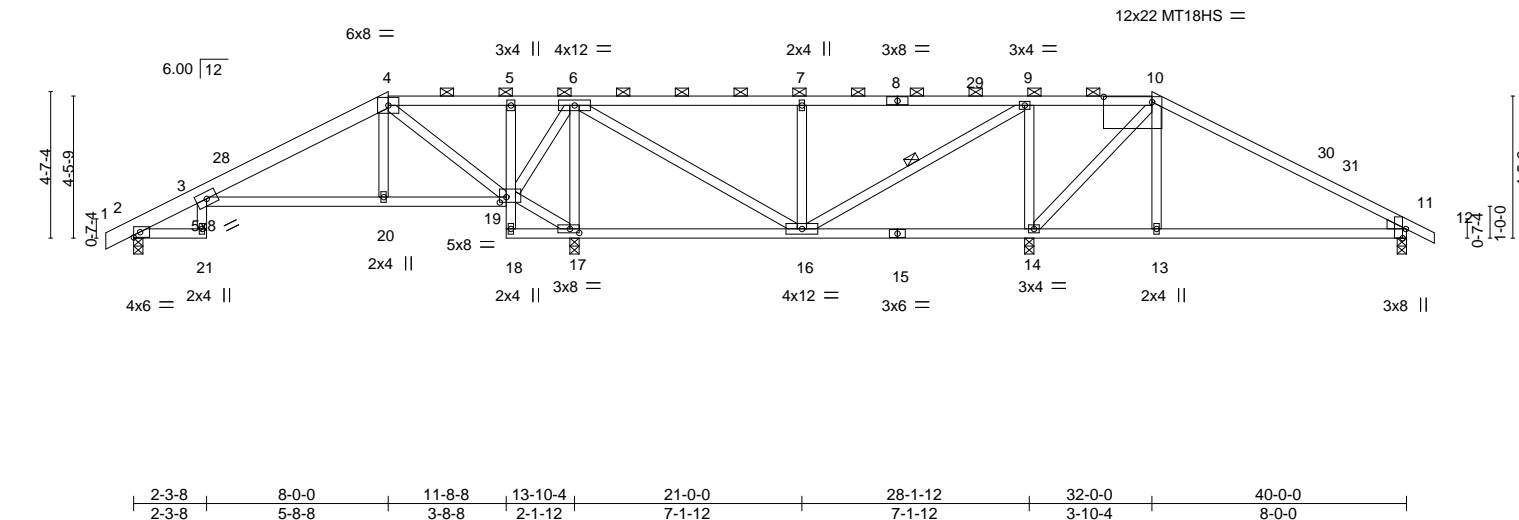
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:55:46 2021 Page 1

ID:clow4Y1gf7iox0?ly?5BCcz33zm-OnUvNdokO5ZsEwUEx87OOlppaRiZG2dZIZDquUzoZgB

-0-10-8 2-3-8 | 8-0-0 | 11-8-8 | 13-10-4 | 21-0-0 | 28-1-12 | 32-0-0 | 40-0-0 | 40-10-8  
0-10-8 2-3-8 | 5-8-8 | 3-8-8 | 2-1-12 | 7-1-12 | 7-1-12 | 3-10-4 | 8-0-0 | 0-10-8

Scale = 1:72.4



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 0.86	Vert(LL)	-0.10 13-27	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.25 13-27	>580	180	MT18HS	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.58	Horz(CT)	0.10 17	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 170 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-4: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
15-18: 2x4 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
WEDGE  
Right: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (6-0-0 max.): 4-10.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 9-16

#### REACTIONS.

All bearings 0-3-8.  
(lb) - Max Horz 2=80(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2 except 17=328(LC 9), 14=230(LC 8), 11=180(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) except 2=393(LC 1), 17=2432(LC 1), 14=1122(LC 26), 11=747(LC 26)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-125/422, 4-5=-221/1258, 5-6=-220/1280, 6-7=-319/238, 7-9=-319/238, 10-11=-732/227  
BOT CHORD 16-17=-1401/306, 13-14=-85/524, 11-13=-84/531  
WEBS 4-19=-1307/238, 17-19=-1511/340, 6-17=-1588/285, 6-16=-233/1672, 7-16=-686/219, 9-14=-592/251, 10-14=-640/72, 10-13=0/280

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 13-10-4, Interior(1) 13-10-4 to 32-0-0, Exterior(2R) 32-0-0 to 37-7-14, Interior(1) 37-7-14 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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) 2 except (jt=lb) 17=328, 14=230, 11=180.
- This truss 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.



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670977
2630107	A9	Hip Girder	1	1		

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

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ID:clow4YlGf7iox0?ly?5BCcz33zm-RMA2?fcg0xR6OCpcGh5?OQICfk5TJK0LXRUVpzoZg8

0-10-8 2-3-8 6-0-0 8-10-4 11-8-8 13-10-4 18-7-7 23-4-9 28-1-12 31-0-14 34-0-0 36-11-13 40-0-0 40-10-8  
0-10-8 2-3-8 3-8-8 2-10-4 2-10-4 2-1-12 4-9-3 4-9-3 4-9-3 2-11-2 2-11-2 2-11-13 3-0-3 0-10-8

Scale = 1:72.4

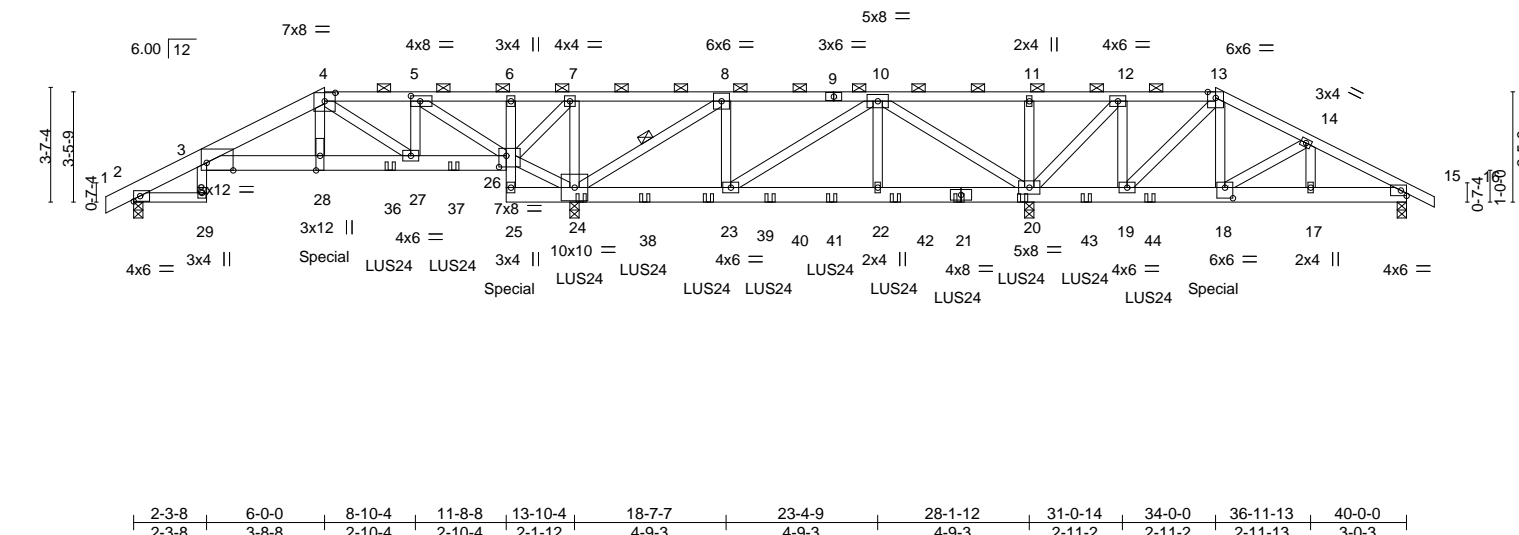


Plate Offsets (X,Y)--		[3:0-10-0,Edge], [4:0-4-0,0-3-3], [5:0-3-8,0-2-0], [18:0-3-0,0-4-0], [26:0-2-12,0-4-4]											
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>		<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.11	3-28	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.24	3-28	>707	180			
BCLL	0.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.15	15	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 211 lb	FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-4: 2x6 SPF 2100F 1.8E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
3-26: 2x6 SPF 2100F 1.8E, 21-25,15-21: 2x6 SP 2400F 2.0E  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-10 oc purlins, except  
2-0-0 oc purlins (6-0-0 max.): 4-13.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:  
6-0-0 oc bracing: 25-26,24-25,23-24.  
WEBS 1 Row at midpt 8-24

#### REACTIONS.

All bearings 0-3-8 except (jt=length) 24=0-3-15 (input: 0-3-8).  
(lb) - Max Horz 2=62(LC 29)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-217(LC 8), 24=-1200(LC 5), 20=-883(LC 4), 15=-223(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) except 2=955(LC 21), 24=4748(LC 21), 20=3533(LC 22), 15=980(LC 22)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-31=-461/160, 3-4=-1880/494, 4-5=-474/228, 5-6=-406/1757, 6-7=-415/1806,  
7-8=-596/2547, 10-11=-205/980, 11-12=-205/980, 12-13=-323/135, 13-14=-1273/344,  
14-15=-1424/340  
BOT CHORD 3-28=-428/1681, 27-28=-407/1606, 26-27=-182/474, 25-26=-293/80, 24-25=-314/80,  
22-23=-88/426, 20-22=-88/426, 19-20=-44/320, 18-19=-199/1047, 17-18=-249/1223,  
15-17=-249/1223  
WEBS 4-28=-343/1238, 4-27=-1519/415, 5-27=-339/1241, 5-26=-2604/673, 24-26=-2496/634,  
7-26=-292/1072, 7-24=-1150/329, 8-24=-2837/703, 8-23=-253/1115, 10-23=-645/165,  
10-22=-166/770, 10-20=-1670/443, 11-20=-386/121, 12-20=-1887/458, 12-19=-278/1137,  
13-19=-1067/268, 13-18=-286/1049, 14-18=-264/166

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- WARNING: Required bearing size at joint(s) 24 greater than input bearing size.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 217 lb uplift at joint 2, 1200 lb uplift at joint 24, 883 lb uplift at joint 20 and 223 lb uplift at joint 15.
- This truss 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 spaced at 4-0-0 oc max. starting at 8-0-12 from the left end to 31-11-4 to connect truss(es) to front face of bottom chord.

Continued on page 2 where hanger is in contact with lumber.



February 4, 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/41 Woodside Ridge/MO	I44670977
2630107	A9	Hip Girder	1	1	Job Reference (optional)	

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

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**NOTES-**

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 816 lb down and 301 lb up at 6-0-0, and 306 lb down and 102 lb up at 11-10-4, and 800 lb down and 284 lb up at 33-11-4 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: 1-3=-90, 3-4=-90, 4-13=-90, 13-16=-90, 29-30=-20, 3-26=-20, 25-33=-20

Concentrated Loads (lb)

Vert: 26=-306(F) 21=-306(F) 28=-816(F) 24=-306(F) 20=-306(F) 18=-800(F) 36=-307(F) 37=-307(F) 38=-306(F) 39=-306(F) 40=-306(F) 41=-306(F) 42=-306(F) 43=-306(F) 44=-306(F)

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670978
2630107	B1	Roof Special	3	1		

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

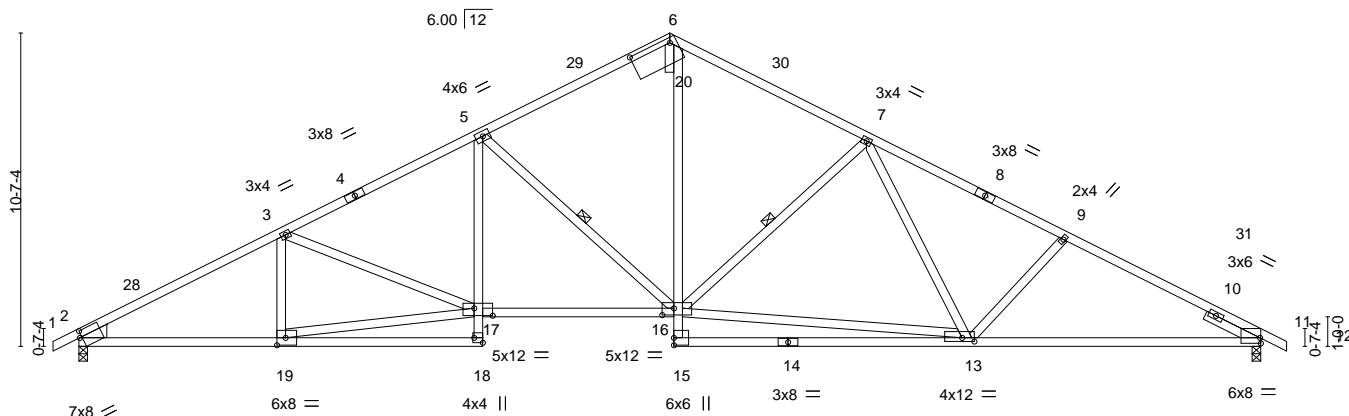
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:55:50 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-vYjQD?rERJ3ljXn0A\_CKYbzVO3\_kCoS9aBB11GzoZg7

-0-10-8	6-10-3	13-8-0	20-0-0	26-7-14	33-3-13	40-0-0	40-10-8
0-10-8	6-10-3	6-9-13	6-4-0	6-7-14	6-7-14	6-8-3	0-10-8

Scale = 1:78.0

10x20 MT20HS



	6-10-3	13-8-0	20-1-10	30-0-10	40-0-0
	6-10-3	6-9-13	6-5-10	9-11-0	9-11-6
Plate Offsets (X,Y)--	[2:0-0-15,0-2-10], [2:0-4-9,0-2-1], [2:0-0-3,0-0-0], [6:1-5-4,0-2-0], [11:Edge,0-2-4], [13:0-4-15,0-1-8], [16:0-4-12,0-2-12], [17:0-7-8,0-3-0], [18:Edge,0-3-8], [19:0-3-8,0-3-0]				

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.26 16-17	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.64 13-15	>752	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.78	Horz(CT)	0.22 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 197 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
1-4,8-12: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-18,11-14: 2x4 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x6 SPF No.2  
SLIDER Right 2x4 SPF No.2 2-0-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-16, 7-16

#### REACTIONS.

(size) 2=0-3-8, 11=0-3-8  
Max Horz 2=186(LC 12)  
Max Uplift 2=-317(LC 12), 11=-317(LC 13)  
Max Grav 2=2270(LC 1), 11=2284(LC 1)

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

TOP CHORD 2-3=-3918/522, 3-5=-3791/525, 5-6=-2759/457, 6-7=-2810/462, 7-9=-3519/503, 9-11=-3828/526  
BOT CHORD 2-19=-549/3378, 5-17=-79/694, 16-17=-420/3293, 6-16=-244/1854, 11-13=-365/3313  
WEBS 3-19=-438/137, 17-19=-517/3184, 5-16=-1270/339, 13-16=-260/2773, 7-16=-863/312, 7-13=-57/343, 9-13=-427/218

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 20-1-9, Exterior(2R) 20-1-9 to 23-1-9, Interior(1) 23-1-9 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 317 lb uplift at joint 2 and 317 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670979
2630107	B2	Roof Special	1	1	Job Reference (optional)	

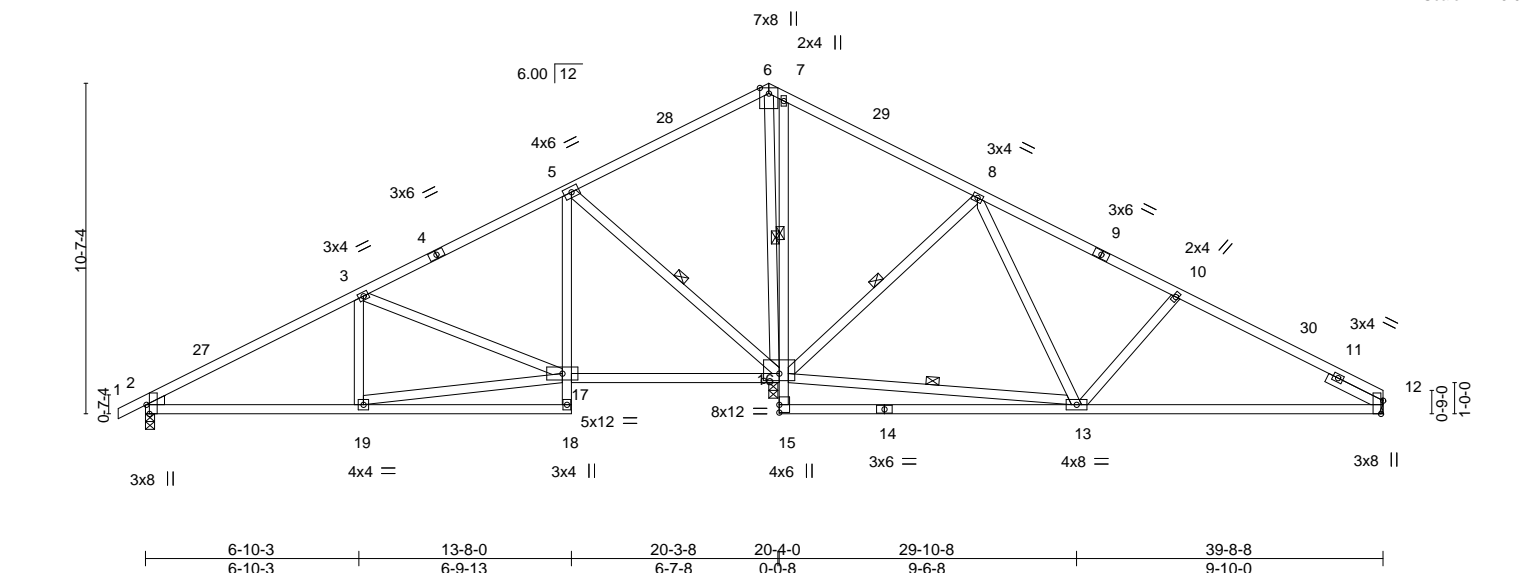
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:clow4Ylgf7iox0?ly?5BCcz33zm-rxrAehsVzxK0zrxOHPEod02vbsjdgeS1Vg868zoZg5

-0-10-8	6-10-3	13-8-0	20-0-0	20-4-0	26-8-5	33-0-11	39-8-8
0-10-8	6-10-3	6-9-13	6-4-0	0-4-0	6-4-5	6-4-5	6-7-13

Scale = 1:73.9



Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670980
2630107	B3	HIP	1	1		

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

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ID:clow4Ylgt7iox0?ly?5BCcz33zm-nJzx3MulVYakC95nPpHGIR8FagPW8b6Vp9FA1zoZg3

-0-10-8	4-8-15	9-5-8	13-8-12	18-0-0	20-4-0	22-0-0	27-9-11	33-7-5	39-8-8
0-10-8	4-8-15	4-8-9	4-3-4	4-3-4	2-4-0	1-8-0	5-9-11	5-9-11	6-1-3

Scale = 1:73.1

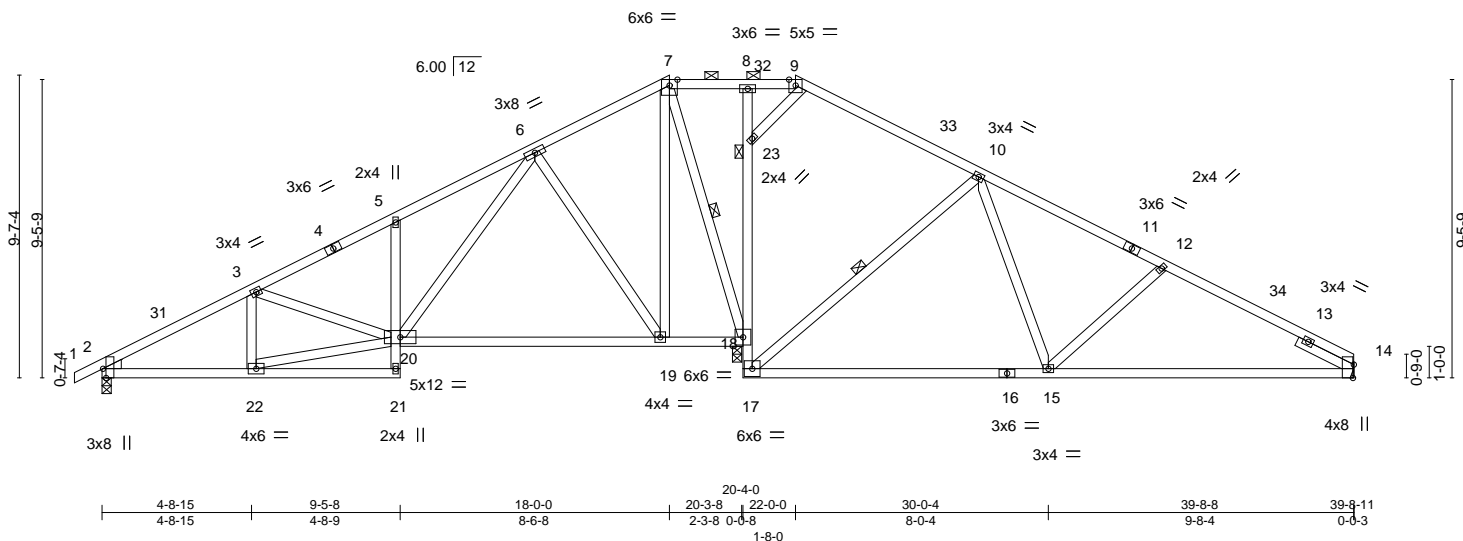


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [14:0-5-1,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.60	Vert(LL)	-0.17 15-17	>999	240	MT20	197/144	
TCDL 20.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.36 15-17	>634	180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.87	Horz(CT)	0.03 18	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 193 lb	FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 "Except"  
 18-20: 2x4 SP 2400F 2.0E  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 2x4 SPF No.2  
 SLIDER Right 2x4 SPF No.2 2-0-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (10-0-0 max.): 7-9.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 7-18, 10-17  
 JOINTS 1 Brace at Jt(s): 23

#### REACTIONS.

(size) 2=0-3-8, 18=0-3-8, 14=Mechanical  
 Max Horz 2=175(LC 12)  
 Max Uplift 2=178(LC 12), 18=294(LC 12), 14=207(LC 13)  
 Max Grav 2=1096(LC 25), 18=2451(LC 1), 14=973(LC 26)

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

TOP CHORD 2-3=-1621/255, 3-5=-1456/264, 5-6=-1462/360, 7-8=-12/334, 8-9=0/472, 9-10=-29/355,  
 10-12=-1030/314, 12-14=-1315/354  
 BOT CHORD 2-22=-326/1370, 5-20=-407/170, 19-20=-85/589, 17-18=-147/746, 18-23=-662/95,  
 8-23=-346/60, 15-17=-67/642, 14-15=-236/1165  
 WEBS 20-22=-298/1359, 6-20=-263/1099, 6-19=-903/287, 7-19=-148/859, 7-18=-1073/205,  
 10-17=-1009/283, 10-15=-60/604, 12-15=-473/203, 9-23=-403/65

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 18-0-0, Exterior(2E) 18-0-0 to 22-0-0, Exterior(2R) 22-0-0 to 26-2-15, Interior(1) 26-2-15 to 39-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 178 lb uplift at joint 2, 294 lb uplift at joint 18 and 207 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 4, 2021

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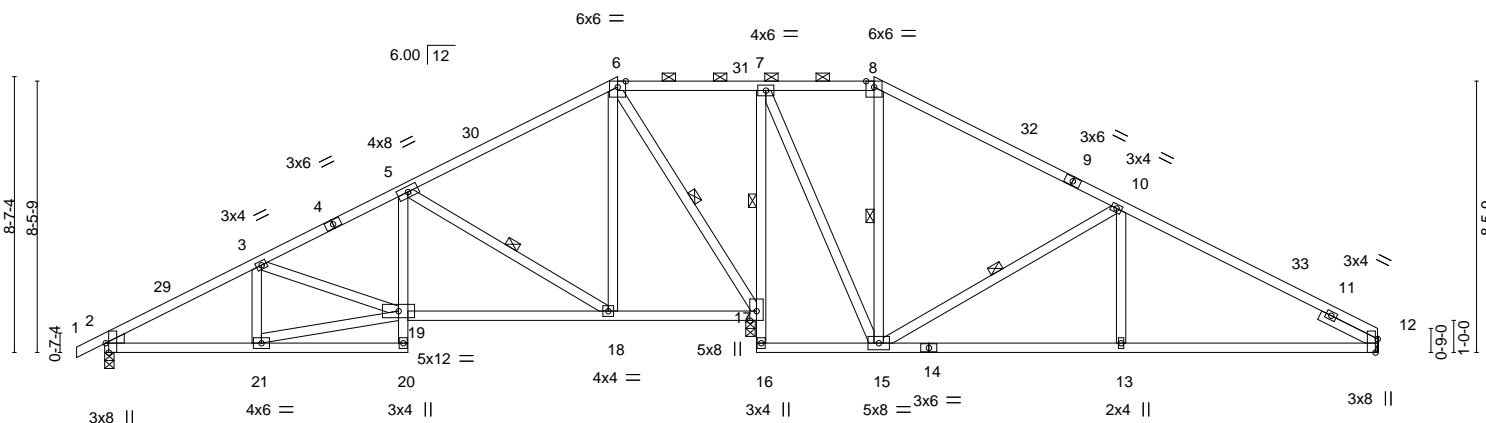
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:55:55 2021 Page 1

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0-10-8		4-8-15		9-5-8		16-0-0		20-4-0		24-0-0		31-8-8		39-8-8	
0-10-8	4-8-15	4-8-9		6-6-8		4-4-0		3-8-0		7-8-8				8-0-0	

Scale = 1:71.9



Date	Weather
4-8-15	4-8-15
9-5-8	4-8-9
16-0-0	6-6-8
20-3-8	4-3-8
20-4-0	0-0-8
24-0-0	3-8-0
31-8-8	7-8-8
39-8-8	8-0-0
39-8-14	0-0-6

Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [12:0-5-1,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b> <b>GRIP</b>		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.06	13-27	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.16	13-27	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.04	17	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 189 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 17-19: 2x4 SP 2400F 2.0E  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 2x4 SPF No.2  
 SLIDER Right 2x4 SPF No.2 2-0-0

<b>BRACING-</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 6-8.
<b>BOT CHORD</b>	Rigid ceiling directly applied. Except:
	1 Row at midpt 7-17
<b>WEBS</b>	1 Row at midpt 5-18, 6-17, 8-15, 10-15

**REACTIONS.** (size) 2=0-3-8, 17=0-3-8, 12=Mechanical  
 Max Horz 2=158(LC 12)  
 Max Uplift 2=209(LC 12), 17=233(LC 12), 12=235(LC 13)  
 Max Grav 2=1103(LC 25), 17=2411(LC 1), 12=978(LC 26)

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

TOP CHORD	2-3=-1627/313, 3-5=-1479/349, 5-6=-542/231, 6-7=-9/367, 7-8=-269/319, 8-10=-464/298, 10-12=-1282/386
BOT CHORD	2-21=-359/1372, 5-19=-50/472, 18-19=-319/1297, 17-18=-48/346, 7-17=-1356/203, 15-16=-273/67, 13-15=-246/1113, 12-13=-246/1113
WEBS	19-21=-327/1299, 5-18=-1095/315, 6-18=-1060/659, 6-17=-1166/214, 8-15=-394/49, 10-15=-996/284, 10-13=-0/328, 7-15=-149/1142

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 20-5-12, Interior(1) 20-5-12 to 24-0-0, Exterior(2R) 24-0-0 to 28-2-15, Interior(1) 28-2-15 to 39-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 209 lb uplift at joint 2, 233 lb uplift at joint 17 and 235 lb uplift at joint 12.
- 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.



February 4, 2021



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670982
2630107	B5	Hip	1	1	Job Reference (optional)	

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

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ID:clow4Ylgf7iox0?ly?5BCcz33zm-Cue3hOwdoTyJ3cqM4yqzK4mlftUmLzVBBnNvnMzoZg0

-0-10-8	4-5-12	8-11-2	14-0-0	20-4-0	26-0-0	32-8-8	39-8-8
0-10-8	4-5-12	4-5-7	5-0-14	6-4-0	5-8-0	6-8-8	7-0-0

Scale = 1:71.9

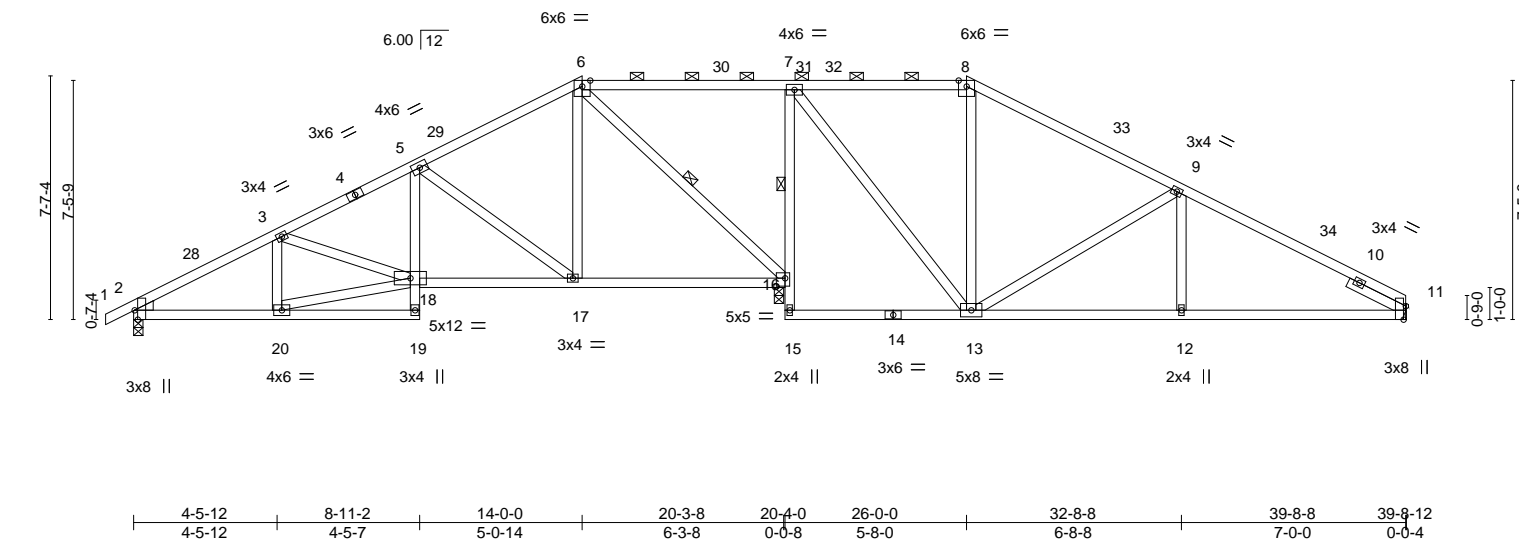


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [2:0-0-3,0-5-0], [2:0-0-1,0-0-3], [1:1-0-5-1,Edge], [16:0-3-4,0-3-0]
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 20.0	Lumber DOL	1.15
BCLL 0.0	Rep Stress Incr	YES
BCDL 10.0	Code IRC2018/TPI2014	
	<b>CSI.</b>	
	TC	0.68
	BC	0.46
	WB	0.83
	Matrix-AS	
	<b>DEFL.</b>	
	in (loc)	l/defl
	Vert(LL)	-0.05 17-18 >999 240
	Vert(CT)	-0.11 17-18 >999 180
	Horz(CT)	0.04 16 n/a n/a
	<b>PLATES</b>	<b>GRIP</b>
	MT20	197/144
	Weight: 182 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 "Except"  
 16-18: 2x4 SP 2400F 2.0E  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 2x4 SPF No.2  
 SLIDER Right 2x4 SPF No.2 2-0-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (6-0-0 max.): 6-8.  
 BOT CHORD Rigid ceiling directly applied. Except:  
 1 Row at midpt 7-16  
 WEBS 1 Row at midpt 6-16

#### REACTIONS.

(size) 11=Mechanical, 2=0-3-8, 16=0-3-8  
 Max Horz 2=140(LC 12)  
 Max Uplift 11=223(LC 13), 2=-215(LC 12), 16=233(LC 12)  
 Max Grav 11=975(LC 26), 2=1114(LC 25), 16=2392(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1658/327, 3-5=-1581/374, 5-6=-819/258, 6-7=-7/326, 7-8=-472/313, 8-9=-661/298,  
 9-11=-1319/368  
 BOT CHORD 2-20=-356/1404, 5-18=-64/433, 17-18=-321/1363, 16-17=-110/630, 7-16=-1440/243,  
 12-13=-241/1157, 11-12=-241/1157  
 WEBS 3-20=-273/121, 18-20=-342/1326, 5-17=-888/258, 6-17=-91/632, 6-16=-1203/214,  
 7-13=-143/1084, 8-13=-289/50, 9-13=-813/238, 9-12=0/268

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 26-0-0, Exterior(2R) 26-0-0 to 30-2-15, Interior(1) 30-2-15 to 39-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 223 lb uplift at joint 11, 215 lb uplift at joint 2 and 233 lb uplift at joint 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 4, 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



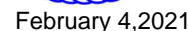
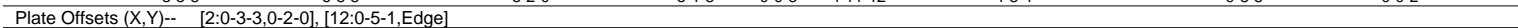
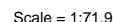
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Valley Center, KS - 67147.

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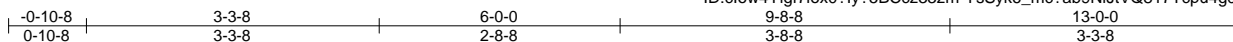




Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670986
2630107	B9	Half Hip Girder	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:02 2021 Page 1  
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Scale = 1:25.9

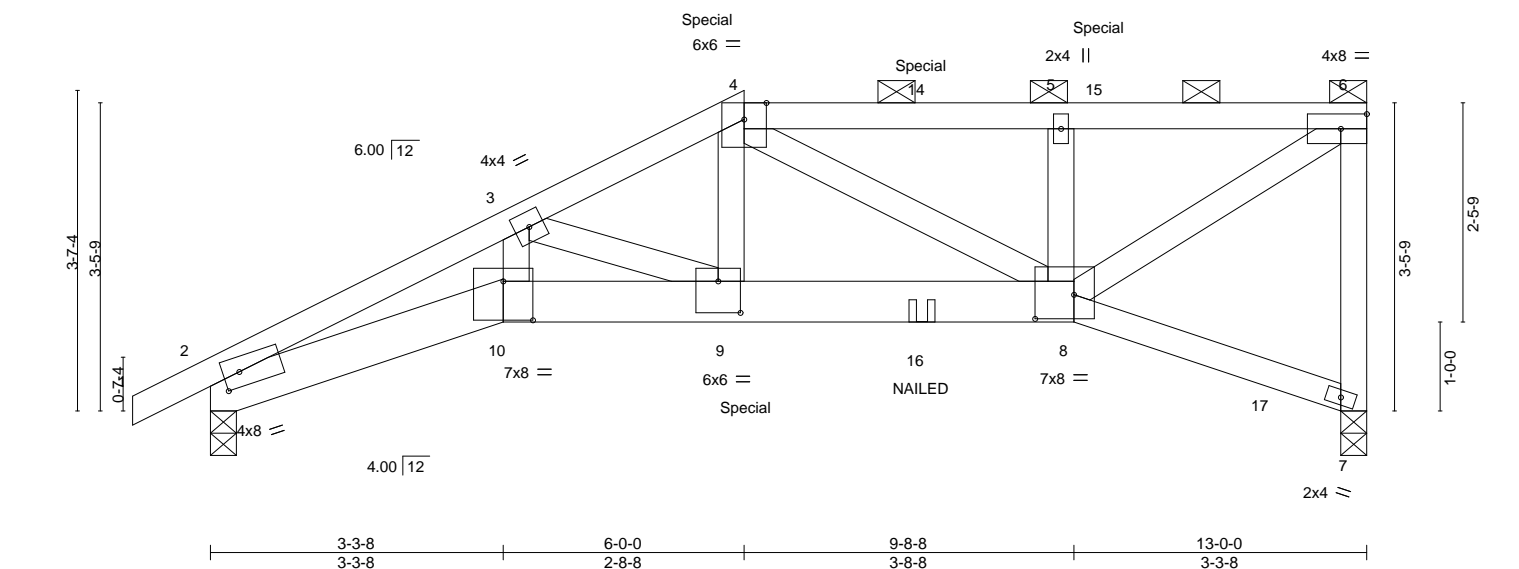


Plate Offsets (X,Y)-- [2:0-2-3,0-2-0], [8:0-5-4,0-3-4], [9:0-3-0,0-4-4], [10:0-4-0,0-5-4]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.08 9-10 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.18 9-10 >849 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.12 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 58 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 "Except"  
2-10: 2x6 SPF 2100F 1.8E, 8-10: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 7=0-3-8  
Max Horz 2=137(LC 28)  
Max Uplift 2=290(LC 8), 7=323(LC 5)  
Max Grav 2=1313(LC 1), 7=1363(LC 1)

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

TOP CHORD 2-3=-3910/925, 3-4=-2865/700, 4-5=-1779/447, 5-6=-1727/428, 6-7=-1305/349  
BOT CHORD 2-10=-896/3493, 9-10=-845/3299, 8-9=-680/2510  
WEBS 3-10=-159/697, 3-9=-769/226, 4-9=-237/1078, 4-8=-856/239, 5-8=-707/252, 6-8=-549/2076

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=290, 7=323.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 228 lb down and 135 lb up at 6-0-0, and 204 lb down and 135 lb up at 8-0-0, and 202 lb down and 136 lb up at 10-0-0 on top chord, and 527 lb down and 162 lb up at 6-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

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



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Continued on page 2

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

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**ANSI/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/41 Woodside Ridge/MO	I44670986
2630107	B9	Half Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:02 2021 Page 2  
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LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-4=-90, 4-6=-90, 10-11=-20, 8-10=-20, 7-8=-20

Concentrated Loads (lb)

Vert: 4=-204(B) 8=-9 9=-527(B) 14=-204(B) 15=-202(B) 16=-6(B) 17=-30

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	I44670987
2630107	C1	ROOF SPECIAL GIRDER	1	2	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:05 2021 Page 2  
ID:clow4Ylgf7iox0?ly?5BCcz33zm-zR75M70fvwyA0rRuYdzrfm56l6AhDcUM11JK2uzoZfu

**NOTES-**

- 8) Bearing at joint(s) 25, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 25=1193, 9=1319.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) Use Simpson Strong-Tie HUS26 (14-16d Girder, 6-16d Truss) or equivalent at 4-0-12 from the left end to connect truss(es) to front face of bottom chord.
- 13) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 6-0-12 from the left end to 20-0-12 to connect truss(es) to front face of bottom chord.
- 14) Fill all nail holes where hanger is in contact with lumber.
- 15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 80 lb down at 0-0-12, and 825 lb down and 158 lb up at 22-0-12 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: 3-24=-90, 3-4=-90, 4-8=-90, 24-26=-160, 7-8=-160, 25-33=-160, 22-33=-110, 10-22=-20, 10-39=-110, 9-39=-160

Concentrated Loads (lb)

Vert: 17=-1024(F) 13=-915(F) 24=-80(F) 8=-825(F) 23=-2243(F) 27=-1024(F) 28=-1024(F) 29=-889(F) 30=-900(F) 31=-918(F) 32=-862(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

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670988
2630107	C2	Hip	1	1		

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

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Job Reference (optional)

0-10-8	4-2-9	8-4-12	14-4-12	18-6-15	22-9-8	23-8-0
0-10-8	4-2-9	4-2-3	6-0-0	4-2-3	4-2-9	0-10-8

Scale = 1:40.6

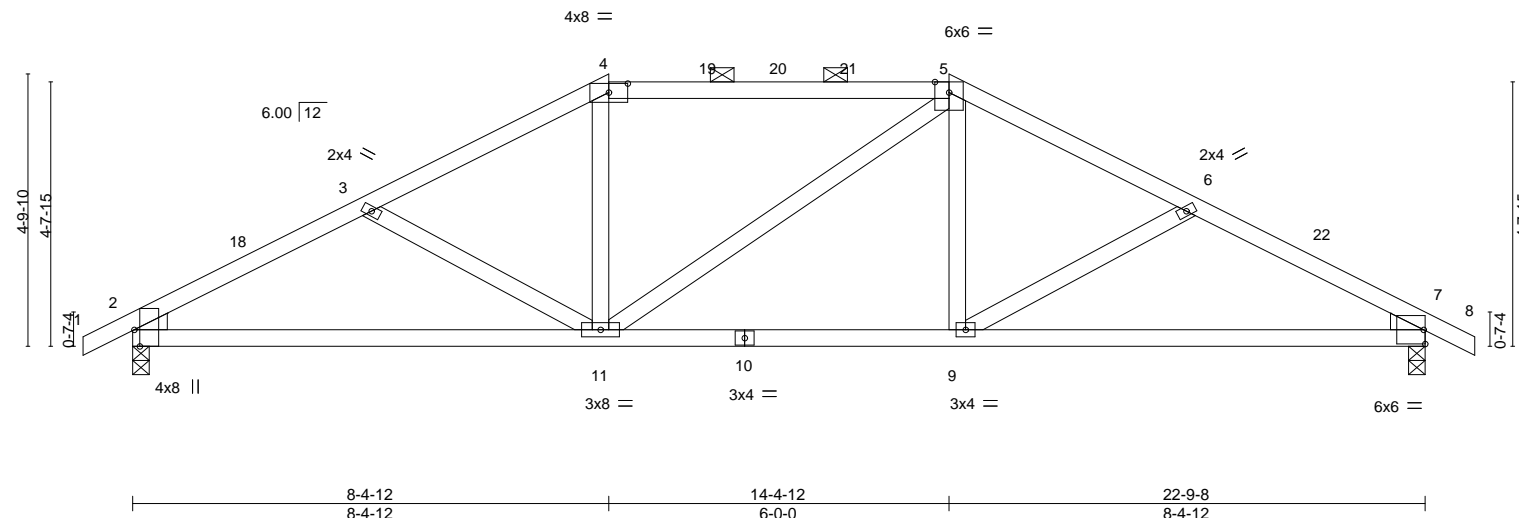


Plate Offsets (X, Y)--	2:0-3-8, Edge	[2:0-0-3, 0-5-0]	[2:0-0-1, 0-0-3]	[4:0-4-0, 0-1-15]	[7:0-0-3, 0-0-1]	[7:0-5-0, 0-0-3]
<b>LOADING</b> (psf)						
TCLL	25.0					
TCDL	20.0					
BCLL	0.0					
BCDL	10.0					
<b>SPACING-</b>						
Plate Grip DOL	1.15					
Lumber DOL	1.15					
Rep Stress Incr	YES					
Code	IRC2018/TPI2014					
<b>CSI.</b>						
TC	0.66					
BC	0.62					
WB	0.14					
Matrix-AS						
<b>DEFL.</b>						
in (loc)						
l/defl						
L/d						
Vert(LL)	-0.08	9-11	>999	240		
Vert(CT)	-0.17	9-17	>999	180		
Horz(CT)	0.06	7	n/a	n/a		
<b>PLATES</b>						
MT20						
<b>GRIP</b>						
197/144						
Weight: 86 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 (3-6-3 max.): 4-5.  
 BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 7=0-3-8  
 Max Horz 2=-80(LC 13)  
 Max Uplift 2=-195(LC 12), 7=-195(LC 13)  
 Max Grav 2=1332(LC 1), 7=1332(LC 1)

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

TOP CHORD 2-3=-2084/338, 3-4=-1799/298, 4-5=-1549/304, 5-6=-1799/298, 6-7=-2084/338  
 BOT CHORD 2-11=-286/1781, 9-11=-144/1549, 7-9=-239/1781  
 WEBS 3-11=-269/145, 4-11=-8/337, 5-9=-11/337, 6-9=-269/145

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-4-12, Exterior(2R) 8-4-12 to 12-7-11, Interior(1) 12-7-11 to 14-4-12, Exterior(2R) 14-4-12 to 18-8-14, Interior(1) 18-8-14 to 23-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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=195, 7=195.
- This truss 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.



February 4, 2021

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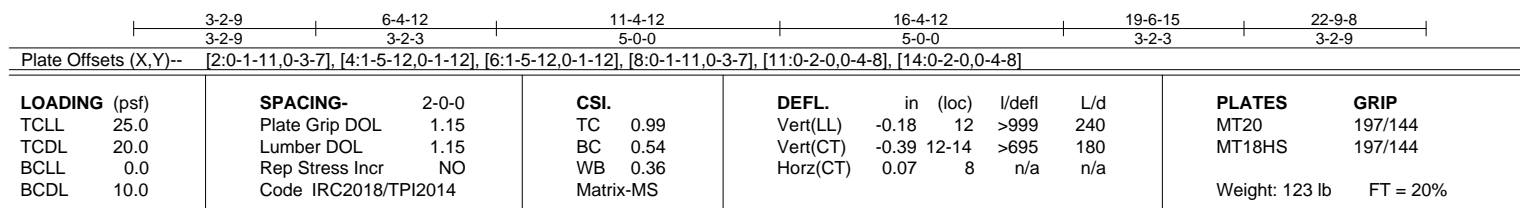
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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



16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:08 2021 Page 1  
ID:clow4Ylgf7iox07ly?5BCcz33zm-N0pE?93XCrLti9TDmXYHOjYwJE4Q2ToJ\_YJDzoZfr  
0-10-8 3-2-9 6-4-12 11-4-12 16-4-12 19-6-15 22-9-8 23-8-0  
0-10-8 3-2-9 3-2-3 5-0-0 5-0-0 3-2-3 3-2-9 0-10-8  
Scale = 1:40.0




**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=62(LC 33)  
 Max Uplift 2=-715(LC 8), 8=-715(LC 9)  
 Max Grav 2=3042(LC 1), 8=3042(LC 1)

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

TOP CHORD	2-3=-5217/1246, 3-4=-5693/1409, 4-5=-6206/1503, 5-6=-6206/1503, 6-7=-5693/1409, 7-8=-5217/1247
BOT CHORD	2-15=-1112/4589, 14-15=-1112/4589, 12-14=-1200/5046, 11-12=-1147/5046, 10-11=-1051/4589, 8-10=-1051/4589
WEBS	3-15=-627/183, 3-14=-291/734, 4-14=-362/1353, 4-12=-378/1475, 5-12=-619/192, 6-12=-378/1475, 6-11=-362/1353, 7-11=-292/734, 7-10=-627/182

- NOTES-**

  - 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=715, 8=715.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 7-4-12 from the left end to 15-4-12 to connect truss(es) to back face of bottom chord.
  - 10) Fill all nail holes where hanger is in contact with lumber.
  - 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 890 lb down and 307 lb up at 6-4-12, and 890 lb down and 307 lb up at 16-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



February 4, 2021



February 4.2021

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	I44670989
2630107	C3	Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:08 2021 Page 2  
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**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-4=-90, 4-6=-90, 6-9=-90, 16-19=-20
- Concentrated Loads (lb)
  - Vert: 14=-890(B) 12=-328(B) 11=-890(B) 22=-328(B) 23=-328(B) 24=-328(B) 25=-328(B)

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670990
2630107	CJ1	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:09 2021 Page 1  
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Scale = 1:21.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.03	8	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.06	8	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.28	Horz(CT)	0.03	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 31 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-8: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-4-3, 7=Mechanical  
Max Horz 2=129(LC 5)  
Max Uplift 2=139(LC 4), 7=134(LC 8)  
Max Grav 2=606(LC 1), 7=549(LC 1)

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

TOP CHORD 2-3=-1349/296  
BOT CHORD 2-8=-320/1245, 7-8=-303/1168  
WEBS 3-8=-37/335, 3-7=-1217/339

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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) except (jt=lb) 2=139, 7=134.
- 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 112 lb down and 92 lb up at 5-7-7, and 112 lb down and 92 lb up at 5-7-7 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-90, 4-5=-40, 8-9=-20, 6-8=-20  
Concentrated Loads (lb)  
Vert: 13=-140(F=-70, B=-70) 14=2(F=1, B=1)



February 4, 2021

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

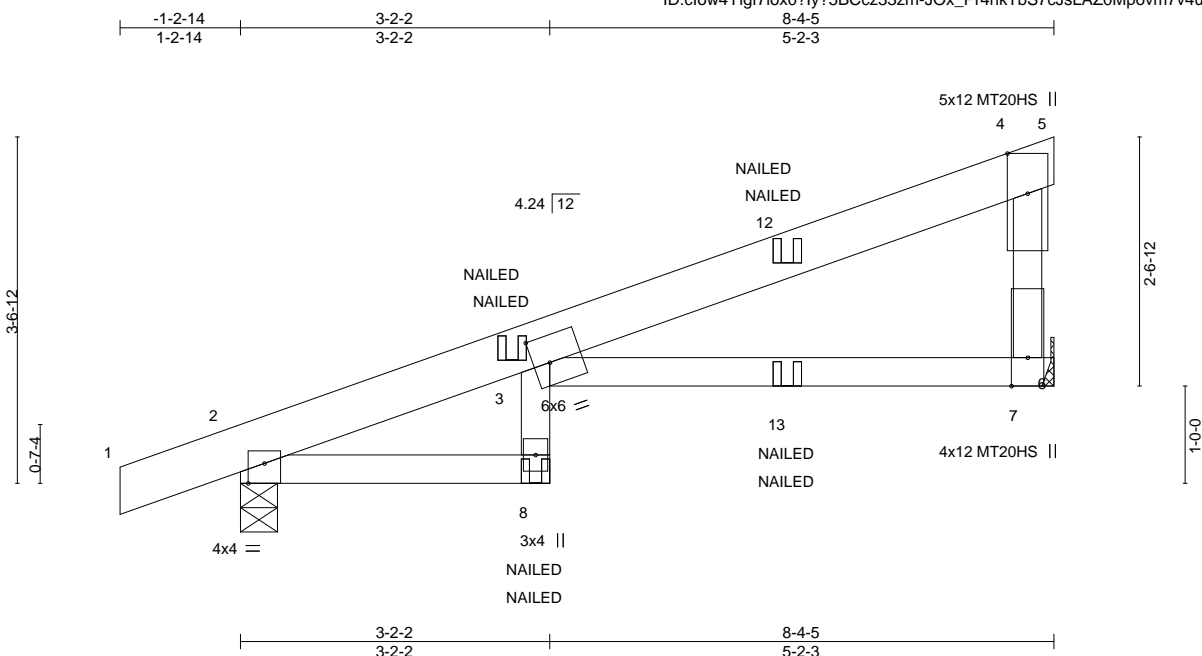


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670991
2630107	CJ2	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:10 2021 Page 1  
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Scale = 1:23.7

Plate Offsets (X,Y)--		[2:0-2-0,Edge], [3:0-2-0,0-3-4]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d			<b>PLATES GRIP</b>		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	0.15	3-7	>663	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.30	3-7	>324	180	MT20HS 148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.14	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 31 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-9  
Max Horz 2=127(LC 5)  
Max Uplift 7=154(LC 8), 2=160(LC 4)  
Max Grav 7=538(LC 1), 2=608(LC 1)

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

TOP CHORD 3-4=-285/56, 4-7=-360/126  
BOT CHORD 3-7=-88/270

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=154, 2=160.
- 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-90, 3-4=-90, 4-5=-40, 8-9=-20, 3-6=-20  
Concentrated Loads (lb)  
Vert: 8=-12(F=-6, B=-6) 12=-10(F=-5, B=-5) 13=-106(F=-53, B=-53)



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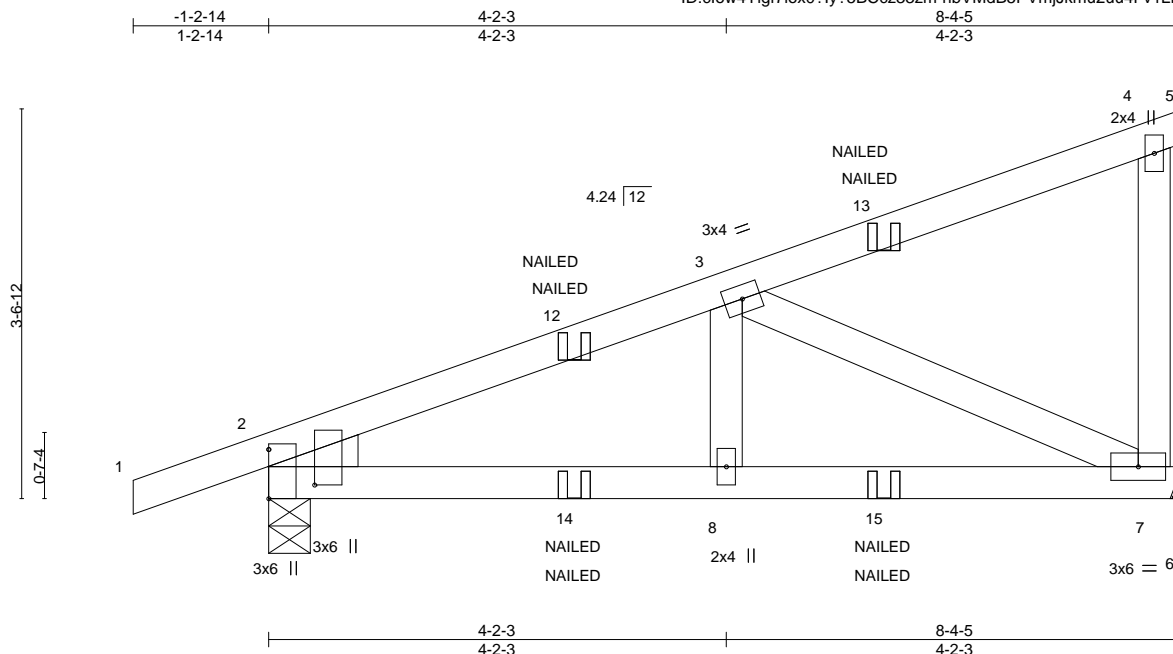


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670992
2630107	CJ2A	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:11 2021 Page 1  
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Scale = 1:21.0

Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d			<b>PLATES GRIP</b>		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.01	7-8	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.03	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.01	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 32 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.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-9  
Max Horz 2=149(LC 7)  
Max Uplift 7=-154(LC 8), 2=-162(LC 4)  
Max Grav 7=523(LC 1), 2=602(LC 1)

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

TOP CHORD 2-3=-740/181  
BOT CHORD 2-8=-208/656, 7-8=-208/656  
WEBS 3-7=-721/243

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=154, 2=162.
- 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=-90, 4-5=-40, 6-9=-20  
Concentrated Loads (lb)  
Vert: 13=-31(F=-16, B=-16) 14=-12(F=-6, B=-6) 15=-63(F=-31, B=-31)



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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670993
2630107	CJ3	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

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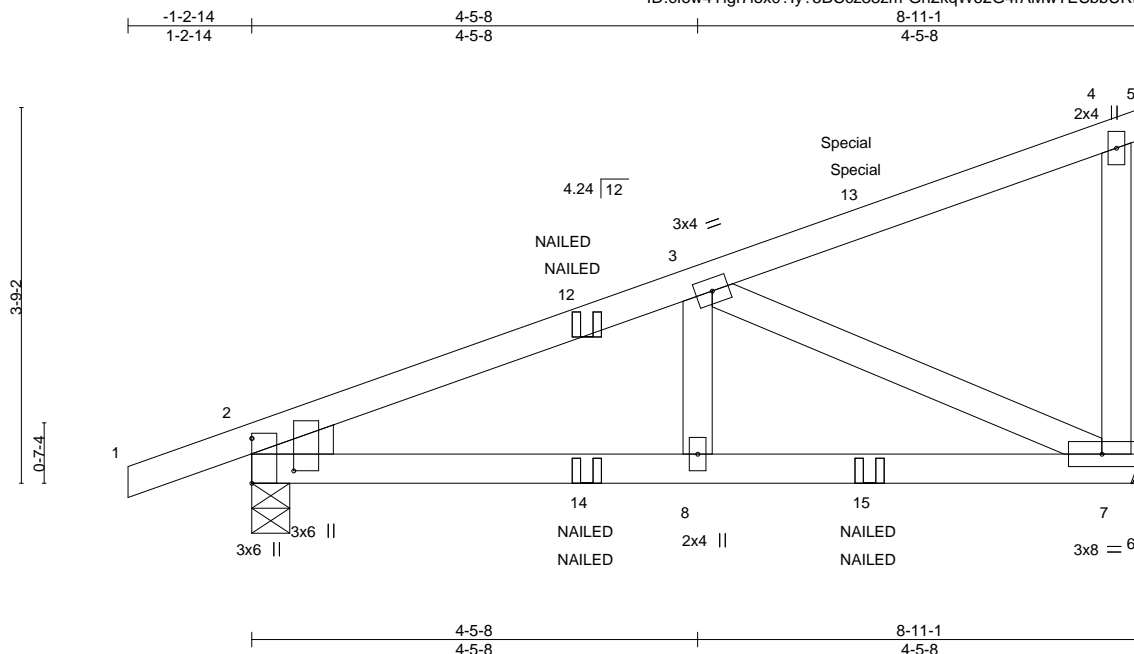


Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d			<b>PLATES GRIP</b>		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.02	7-8	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.05	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.30	Horz(CT)	0.01	7	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							
											Weight: 34 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.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-9  
Max Horz 2=143(LC 24)  
Max Uplift 7=-172(LC 8), 2=-168(LC 4)  
Max Grav 7=590(LC 1), 2=645(LC 1)

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

TOP CHORD 2-3=-840/198  
BOT CHORD 2-8=-232/748, 7-8=-232/748  
WEBS 3-7=-820/272

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=172, 2=168.
- 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) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 80 lb down and 82 lb up at 6-2-3, and 80 lb down and 82 lb up at 6-2-3 on top chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-90, 4-5=-40, 6-9=-20  
Concentrated Loads (lb)  
Vert: 13=-68(F=-34, B=-34) 14=-16(F=-8, B=-8) 15=-72(F=-36, B=-36)



February 4, 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/41 Woodside Ridge/MO	144670994
2630107	CJ4	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:13 2021 Page 1

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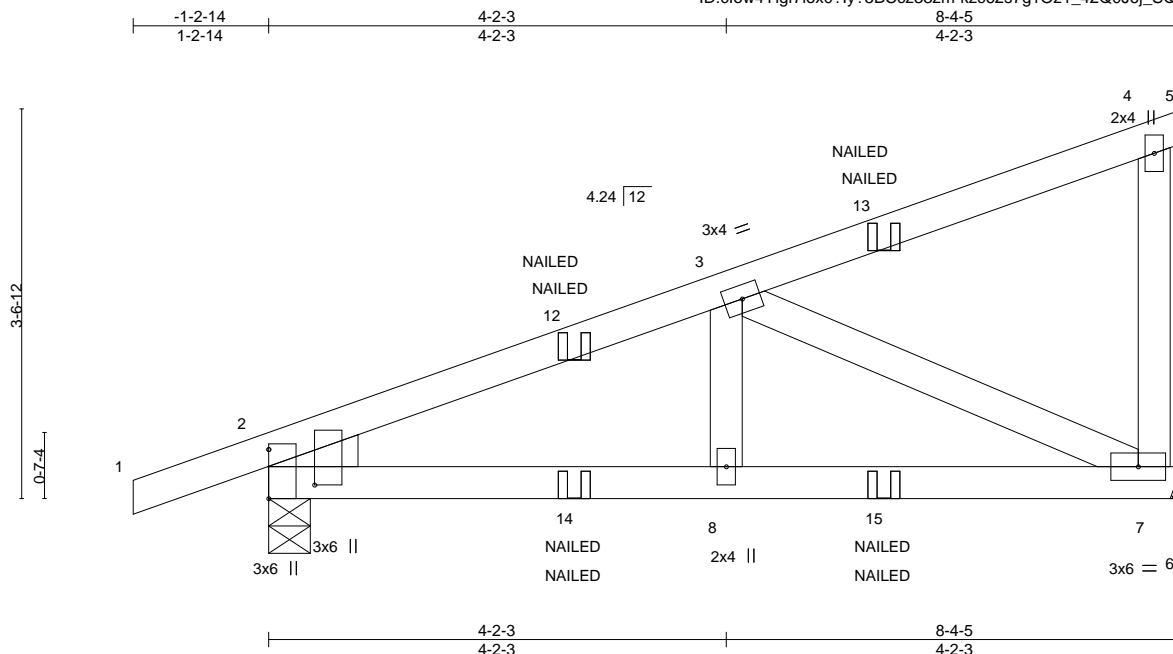


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.01	7-8	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	-0.03	7-8	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.22	Horz(CT)	0.01	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 32 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.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-9  
Max Horz 2=149(LC 7)  
Max Uplift 7=-136(LC 8), 2=-152(LC 4)  
Max Grav 7=488(LC 1), 2=585(LC 1)

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

TOP CHORD 2-3=-693/156  
BOT CHORD 2-8=-185/612, 7-8=-185/612  
WEBS 3-7=-673/217

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=136, 2=152.
- 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=-90, 4-5=-40, 6-9=-20  
Concentrated Loads (lb)  
Vert: 13=-16(F) 14=-9(F=-6, B=-3) 15=-31(F=-31, B=1)



February 4, 2021

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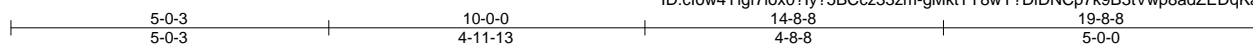


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2630107	Truss D1	Truss Type Common	Qty 2	Ply 1	Summit/41 Woodside Ridge/MO 144670996
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

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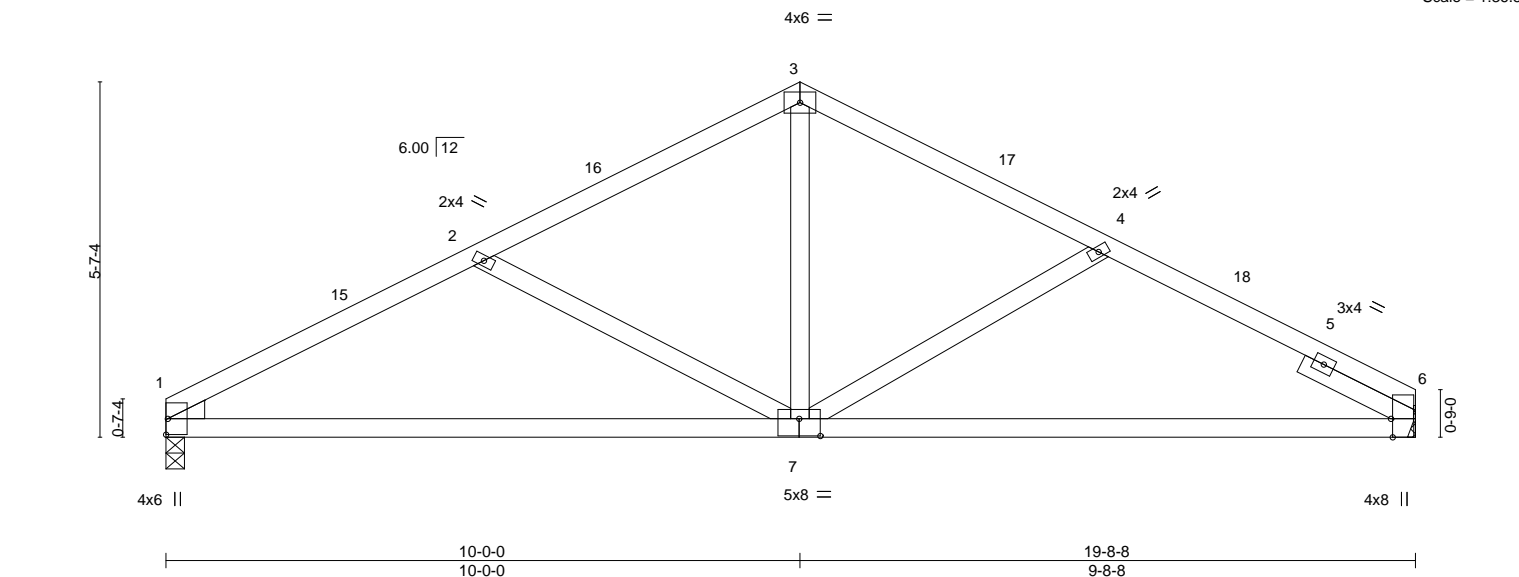


Plate Offsets (X, Y)--		[1:0-0-3,0-5-0], [1:0-0-1,0-0-3], [6:0-3-8,Edge], [7:0-4-0,0-3-4]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.31
TCDL 20.0	Lumber DOL	1.15	BC 0.73
BCLL 0.0	Rep Stress Incr	YES	WB 0.30
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.13 7-14 >999 240
			Vert(CT) -0.29 7-14 >829 180
			Horz(CT) 0.04 6 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 69 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 6=Mechanical, 1=0-3-8  
Max Horz 1=92(LC 12)  
Max Uplift 6=144(LC 13), 1=146(LC 12)  
Max Grav 6=1084(LC 1), 1=1084(LC 1)

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

TOP CHORD 1-2=-1742/374, 2-3=-1293/293, 3-4=-1280/295, 4-6=-1625/358  
BOT CHORD 1-7=-276/1486, 6-7=-248/1396  
WEBS 2-7=-509/208, 3-7=-90/614, 4-7=-428/192

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 19-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=144, 1=146.
- This truss 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.



February 4, 2021

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



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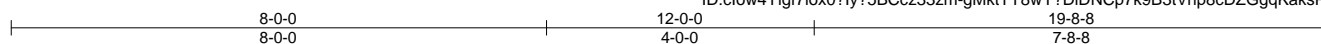
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670997
2630107	D2	Hip	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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12x22 MT18HS =

4x8 =

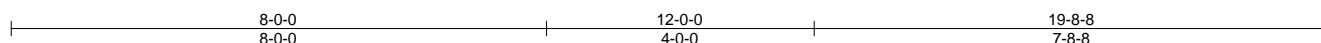
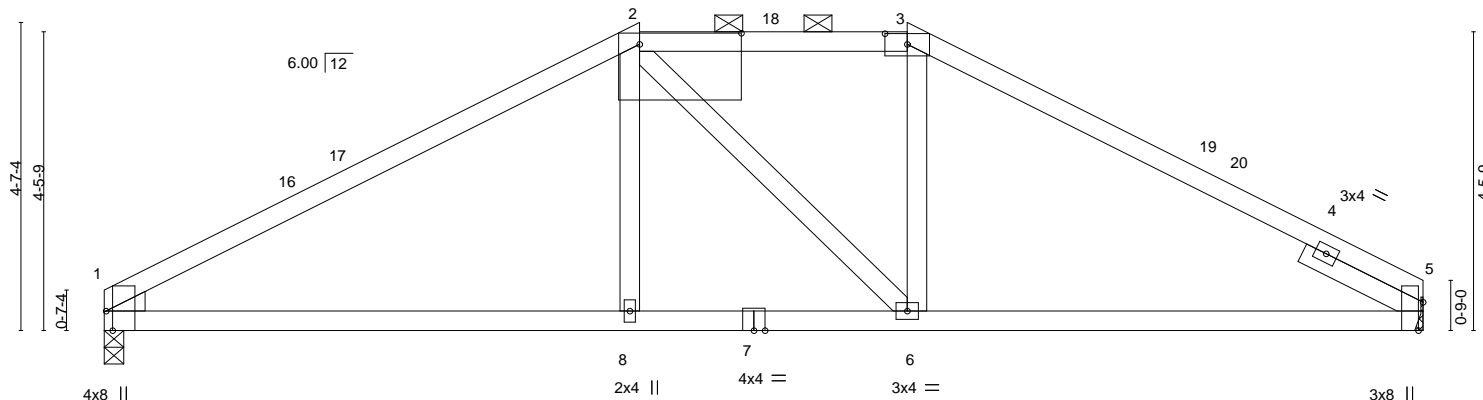


Plate Offsets (X,Y)--	[1:0-3-8,Edge], [1:0-0-3,0-5-0], [1:0-0-1,0-0-3], [2:1-6-4,0-2-0], [3:0-4-0,0-1-15], [5:0-5-1,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.89	Vert(LL)	0.10	8-15	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.22	8-15	>999	180	MT18HS	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.03	1	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  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 2x4 SPF No.2  
 SLIDER Right 2x4 SPF No.2 2-0-0

#### BRACING-

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

#### REACTIONS.

(size) 5=Mechanical, 1=0-3-8  
 Max Horz 1=73(LC 12)  
 Max Uplift 5=149(LC 13), 1=151(LC 12)  
 Max Grav 5=1084(LC 1), 1=1084(LC 1)

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

TOP CHORD 1-2=-1605/290, 2-3=-1265/312, 3-5=-1471/286  
 BOT CHORD 1-8=-179/1308, 6-8=-180/1303, 5-6=-166/1271  
 WEBS 2-8=0/254, 3-6=-21/250

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 8-0-0, Exterior(2E) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 19-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=149, 1=151.
- 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.



February 4, 2021

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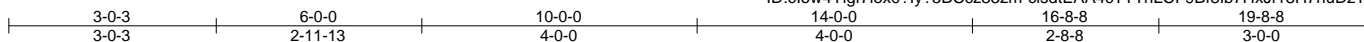


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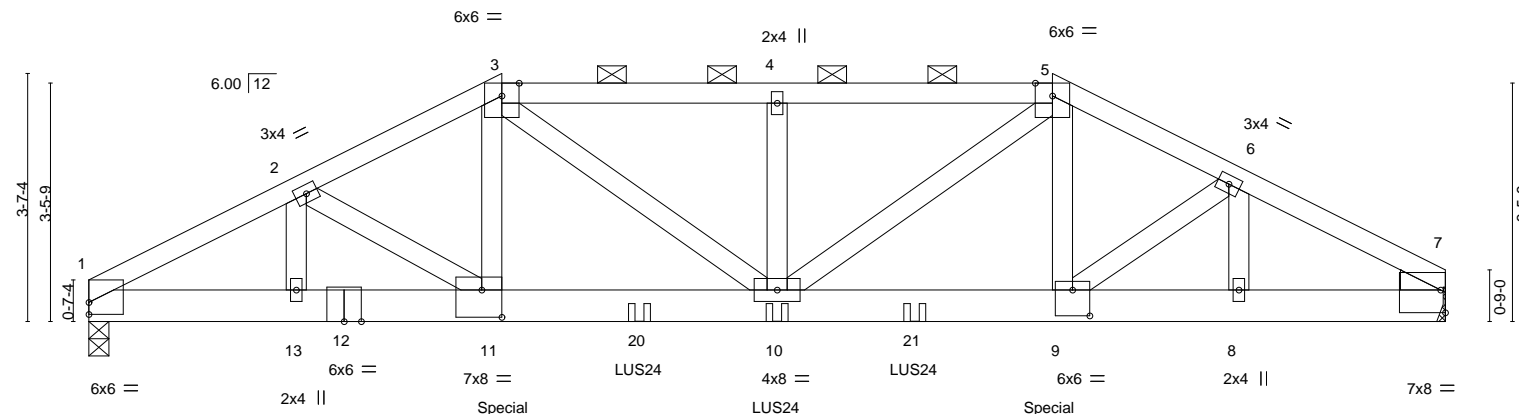
Job 2630107	Truss D3	Truss Type Hip Girder	Qty 1	Ply 1	Summit/41 Woodside Ridge/MO 144670998
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:17 2021 Page 1  
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Scale = 1:33.5



3-0-3 3-0-3	6-0-0 2-11-13	10-0-0 4-0-0	14-0-0 4-0-0	16-8-8 2-8-8	19-8-8 3-0-0
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Plate Offsets (X,Y)-- [1:0-0,0-2-1], [7:Edge,0-3-15], [7:0-5-8,0-0-7], [7:0-0-7,0-0-3], [9:0-3-0,0-4-8], [11:0-3-8,0-4-12]

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 0.83	Vert(LL)	-0.11	10	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.24	10	>978	180	197/144
BCLL 0.0	Rep Stress Incr	NO	WB 0.26	Horz(CT)	0.04	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						
								Weight: 90 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x6 SPF 2100F 1.8E  
WEBS 2x4 SPF No.2  
WEDGE  
Right: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-6-2 oc purlins, except 2-0-0 oc purlins (2-3-12 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-3-8, 7=Mechanical  
Max Horz 1=54(LC 29)  
Max Uplift 1=522(LC 8), 7=531(LC 9)  
Max Grav 1=2290(LC 1), 7=2326(LC 1)

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

TOP CHORD 1-2=-3985/928, 2-3=-4249/1033, 3-4=-4456/1054, 4-5=-4456/1054, 5-6=-4137/1008, 6-7=-3705/869  
BOT CHORD 1-13=-840/3495, 11-13=-840/3495, 10-11=-878/3757, 9-10=-809/3674, 8-9=-729/3237, 7-8=-729/3237  
WEBS 2-13=-429/130, 2-11=-233/490, 3-11=-264/1001, 3-10=-251/963, 4-10=-499/155, 5-10=-271/1061, 5-9=-239/886, 6-9=-224/693, 6-8=-595/161

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=522, 7=531.
- This truss 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 spaced at 2-0-0 oc max. starting at 8-0-0 from the left end to 12-0-0 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 766 lb down and 266 lb up at 6-0-0, and 766 lb down and 266 lb up at 13-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



February 4, 2021

#### LOAD CASE(S) Standard

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16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	I44670998
2630107	D3	Hip Girder	1	1	Job Reference (optional)	

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

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LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
  - Vert: 1-3=-90, 3-5=-90, 5-7=-90, 14-17=-20
- Concentrated Loads (lb)
  - Vert: 11=-766(B) 10=-306(B) 9=-766(B) 20=-306(B) 21=-306(B)

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

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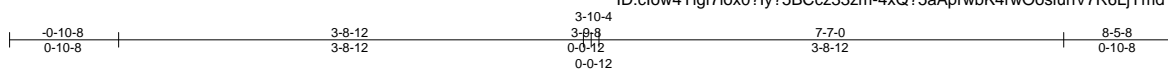
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144670999
2630107	E1	Hip Girder	1	1	Job Reference (optional)	

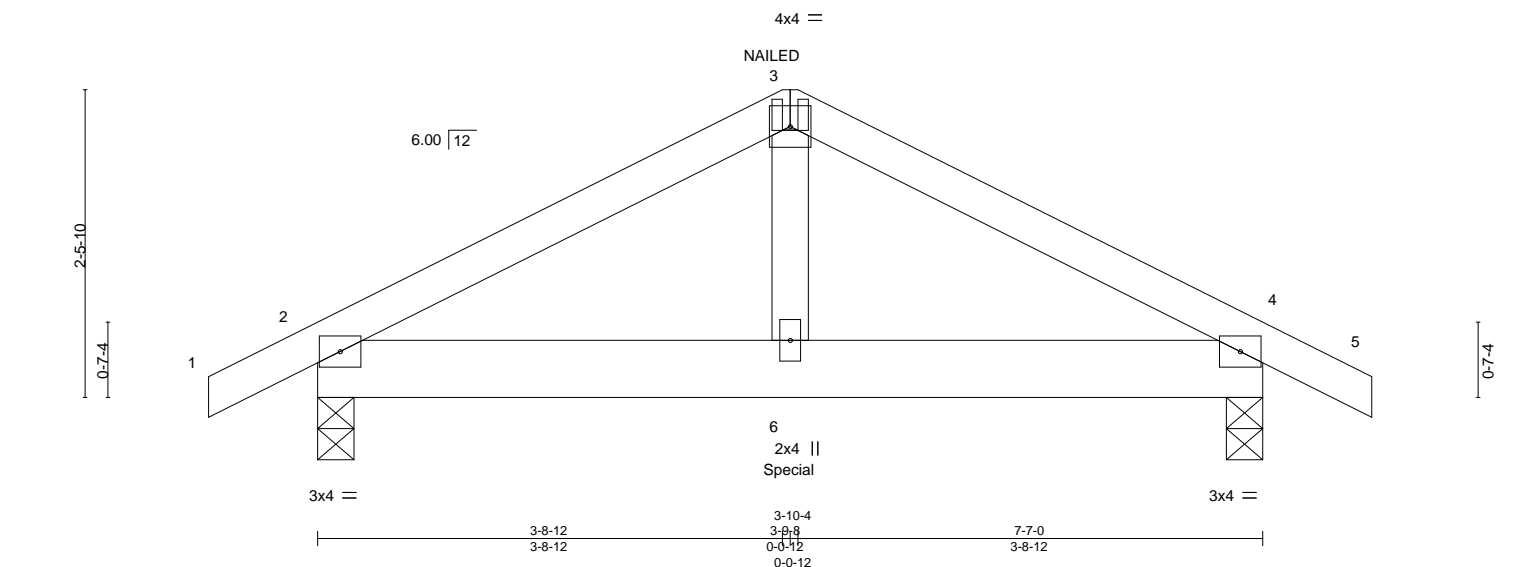
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:18 2021 Page 1

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Scale = 1:18.5



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 0.25	Vert(LL)	-0.01	6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	-0.02	6	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.14	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 28 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=41(LC 30)  
Max Uplift 2=196(LC 8), 4=196(LC 9)  
Max Grav 2=775(LC 1), 4=775(LC 1)

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

TOP CHORD 2-3=-1028/292, 3-4=-1028/292  
BOT CHORD 2-6=-221/847, 4-6=-221/847  
WEBS 3-6=-158/552

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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=196, 4=196.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 513 lb down and 241 lb up at 3-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-90, 3-5=-90, 7-10=-20  
Concentrated Loads (lb)  
Vert: 3=-45(B) 6=-513(B)



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

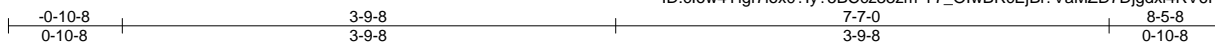
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671000
2630107	E2	Common	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:19 2021 Page 1

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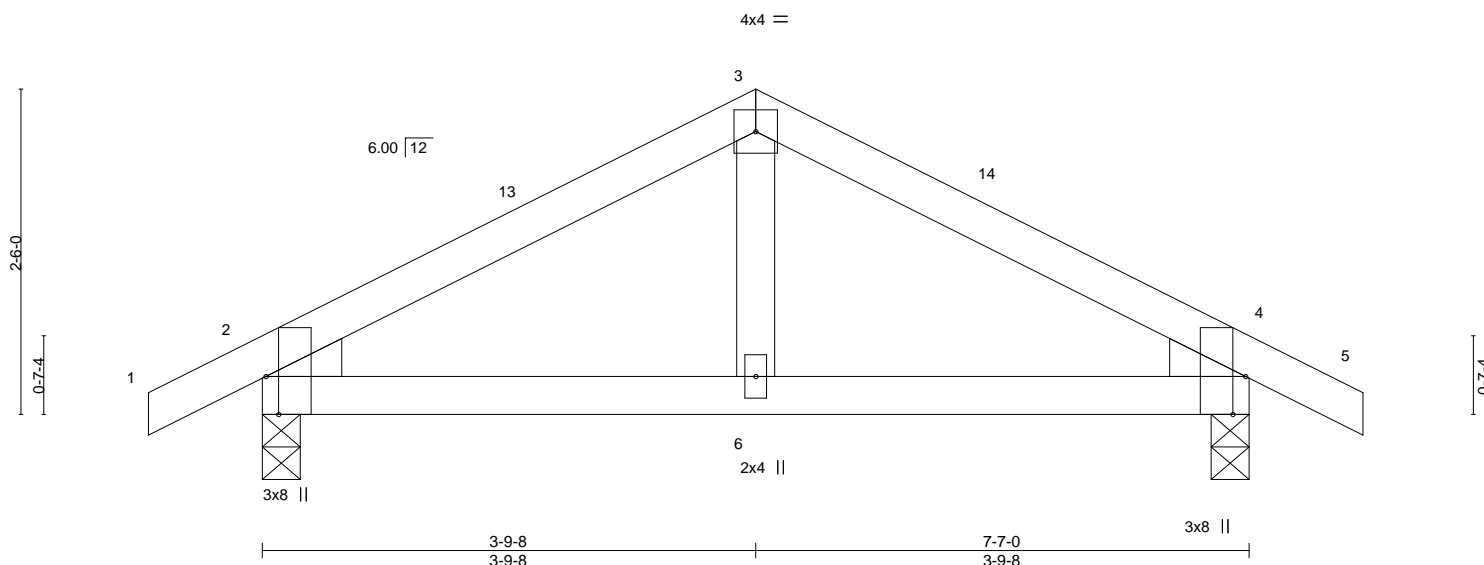


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [4:0-0-1,0-0-3], [4:0-0-3,0-5-0], [4:0-3-8,Edge]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	-0.01 6-9	>999 240
TCDL 20.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.01 6-9	>999 180
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00 2	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS			
						<b>PLATES</b> MT20 <b>GRIP</b> 197/144
						Weight: 24 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.

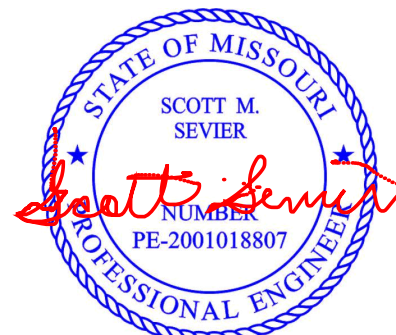
(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=41(LC 12)  
Max Uplift 2=-76(LC 12), 4=-76(LC 13)  
Max Grav 2=496(LC 1), 4=496(LC 1)

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

TOP CHORD 2-3=-484/221, 3-4=-484/221  
BOT CHORD 2-6=-83/368, 4-6=-83/368

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-8, Exterior(2R) 3-9-8 to 6-11-11, Interior(1) 6-11-11 to 8-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



February 4, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

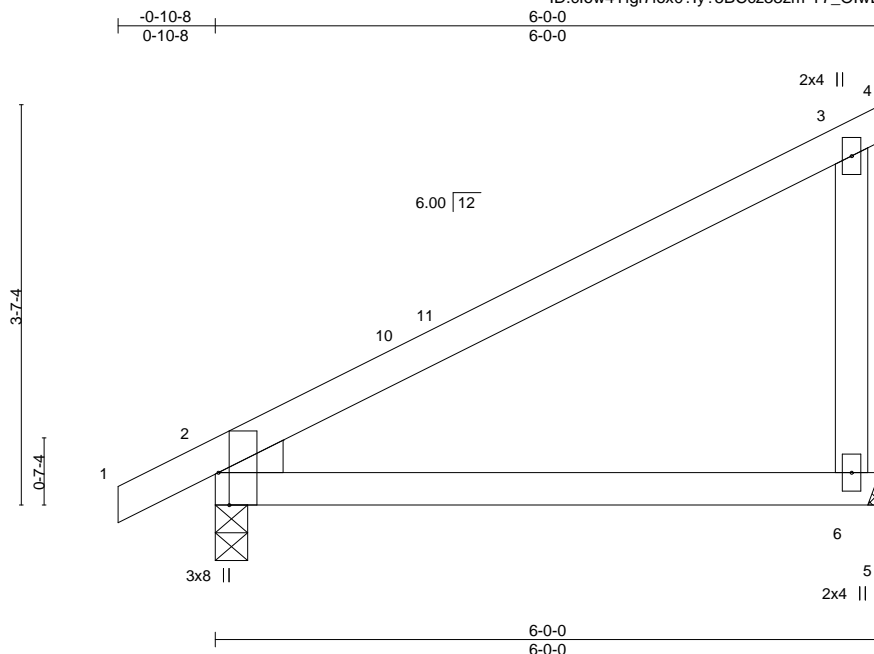
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	J1	Jack-Closed	17	1	144671001
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:19 2021 Page 1

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Scale = 1:20.7

Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.54
TCDL 20.0	Lumber DOL	1.15	BC 0.41
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
<b>DEFL.</b>	in (loc)	l/defl	L/d
Vert(LL)	0.07	6-9	>924
Vert(CT)	-0.14	6-9	>505
Horz(CT)	0.03	2	n/a
<b>PLATES</b>	<b>GRIP</b>		
MT20	197/144		
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) 6=Mechanical, 2=0-3-8  
 Max Horz 2=139(LC 11)  
 Max Uplift 6=82(LC 12), 2=-59(LC 12)  
 Max Grav 6=326(LC 1), 2=399(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



February 4, 2021

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



16023 Swingley Ridge Rd  
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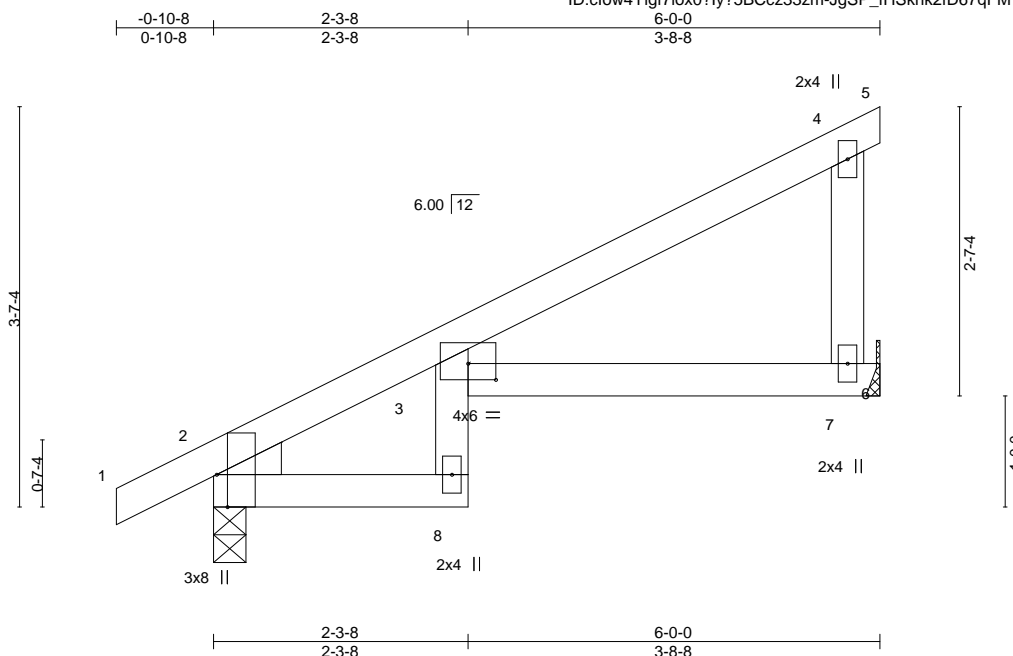
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671002
2630107	J2	Jack-Open	3	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:27 2021 Page 1

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Scale = 1:20.7

Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-3-0,0-1-12]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	0.17	8	>399	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.29	8	>236	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.20	7	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.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-3-8, 7=Mechanical  
Max Horz 2=137(LC 12)  
Max Uplift 2=-41(LC 12), 7=-99(LC 12)  
Max Grav 2=400(LC 1), 7=327(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 4-7=-284/223

#### NOTES-

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



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

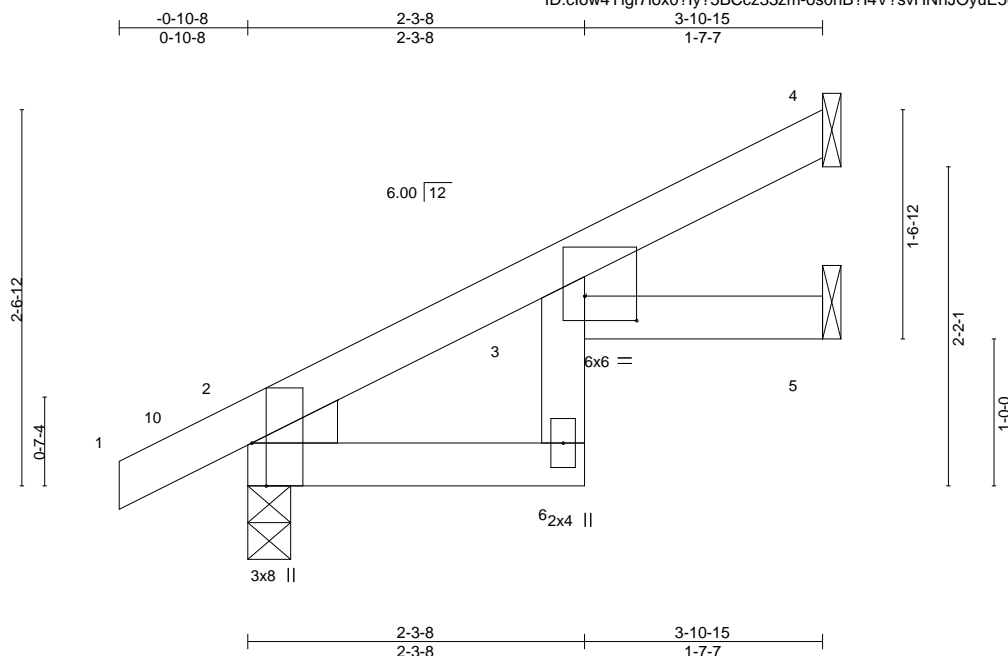


Plate Offsets (X,Y)-- [2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge], [3:0-4-4,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d					PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	0.03	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.05	6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MR							Weight: 13 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 3-10-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.**

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=94(LC 12)  
Max Uplift 4=-46(LC 12), 2=-35(LC 12), 5=-16(LC 12)  
Max Grav 4=123(LC 1), 2=301(LC 1), 5=81(LC 1)

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

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 3-10-3 zone; cantilever left and right exposed; and vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 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.



February 4, 2021

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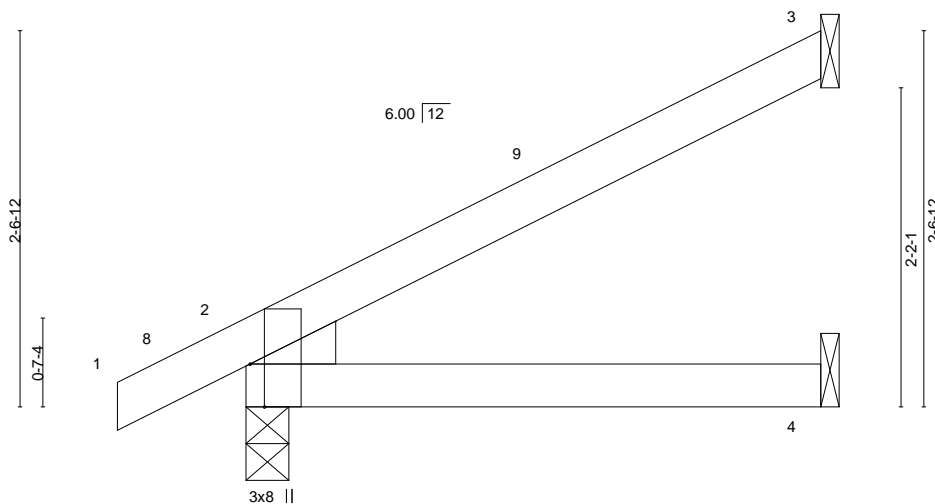


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2630107	Truss J3A	Truss Type Jack-Open	Qty 2	Ply 1	Summit/41 Woodside Ridge/MO 144671004
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:29 2021 Page 1  
 ID:clow4Ylgf7iox0?ly?5BCcz33zm-G2aAPKJiFI\_mvXGVygPTdq5KWnUQrdJuYm8buVzoZfW  
 -0-10-8 0-10-8 3-10-15 3-10-15

Scale = 1:15.7



										<div><div></div><div>3-10-15</div><div></div></div>													
Plate Offsets (X,Y)--										[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]													
<b>LOADING</b> (psf)		<b>SPACING-</b>		2-0-0		<b>CSI.</b>				<b>DEFL.</b>		in (loc)		l/defl		L/d		<b>PLATES</b>		<b>GRIP</b>			
TCLL	25.0	Plate Grip DOL		1.15		TC		0.23		Vert(LL)		0.02		4-7		>999		240		MT20		197/144	
TCDL	20.0	Lumber DOL		1.15		BC		0.19		Vert(CT)		-0.03		4-7		>999		180					
BCLL	0.0	Rep Stress Incr		YES		WB		0.00		Horz(CT)		0.01		2		n/a		n/a					
BCDL	10.0	Code IRC2018/TPI2014				Matrix-MP														Weight: 11 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
 Max Horz 2=94(LC 12)  
 Max Uplift 3=-60(LC 12), 2=-36(LC 12), 4=-3(LC 12)  
 Max Grav 3=143(LC 1), 2=299(LC 1), 4=76(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 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.



February 4, 2021

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2630107	Truss J4	Truss Type Jack-Open	Qty 4	Ply 1	Summit/41 Woodside Ridge/MO 144671005
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:30 2021 Page 1  
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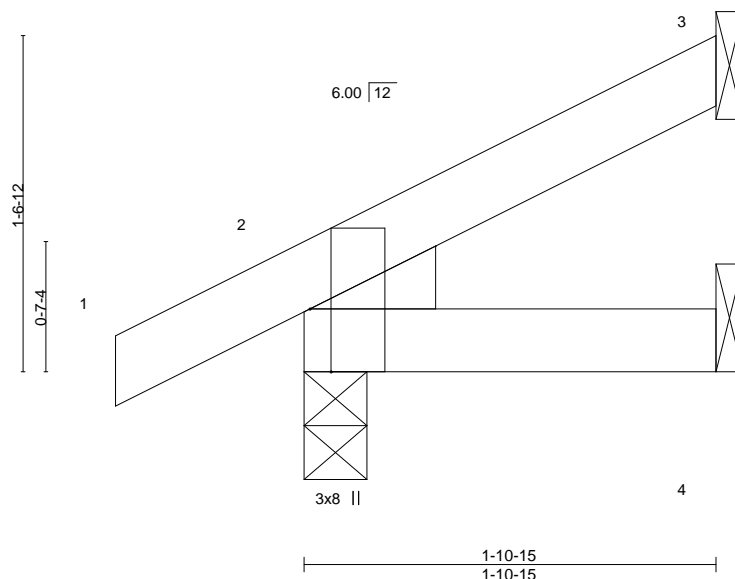


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			<b>DEFL.</b> in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 7 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=54(LC 12)  
Max Uplift 3=27(LC 12), 2=28(LC 12), 4=4(LC 12)  
Max Grav 3=60(LC 1), 2=201(LC 1), 4=35(LC 3)

#### FORCES.

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

#### NOTES-

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



February 4, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	J5	Jack-Open	4	1	I44671006
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:30 2021 Page 1

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-0-10-8  
0-10-8

2-3-11  
2-3-11

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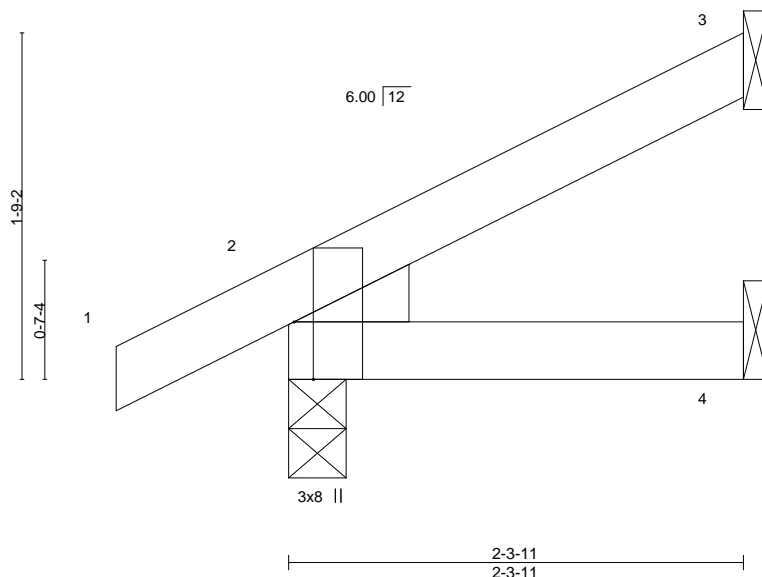


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.05
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			<b>DEFL.</b> in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 8 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD

Structural wood sheathing directly applied or 2-3-11 oc purlins.

BOT CHORD

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

#### REACTIONS.

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

Max Horz 2=61(LC 12)

Max Uplift 3=33(LC 12), 2=29(LC 12), 4=4(LC 12)

Max Grav 3=75(LC 1), 2=218(LC 1), 4=42(LC 3)

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

#### NOTES-

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



February 4, 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 2630107	Truss J6	Truss Type Jack-Open	Qty 4	Ply 1	Summit/41 Woodside Ridge/MO 144671007
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:31 2021 Page 1

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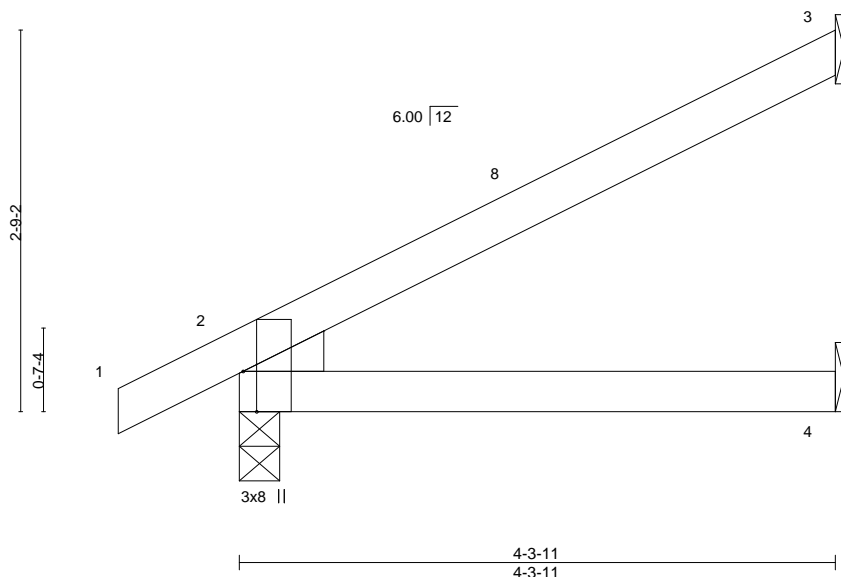


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28
TCDL 20.0	Lumber DOL	1.15	BC 0.22
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			<b>DEFL.</b> in (loc) l/defl L/d
			Vert(LL) 0.03 4-7 >999 240
			Vert(CT) -0.04 4-7 >999 180
			Horz(CT) 0.01 2 n/a n/a
			<b>PLATES</b> MT20
			<b>GRIP</b> 197/144
			Weight: 12 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 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=102(LC 12)

Max Uplift 3=68(LC 12), 2=37(LC 12), 4=2(LC 12)

Max Grav 3=161(LC 1), 2=320(LC 1), 4=83(LC 3)

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

#### NOTES-

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



February 4, 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/41 Woodside Ridge/MO
2630107	J7	Jack-Closed	7	1	144671008
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:32 2021 Page 1

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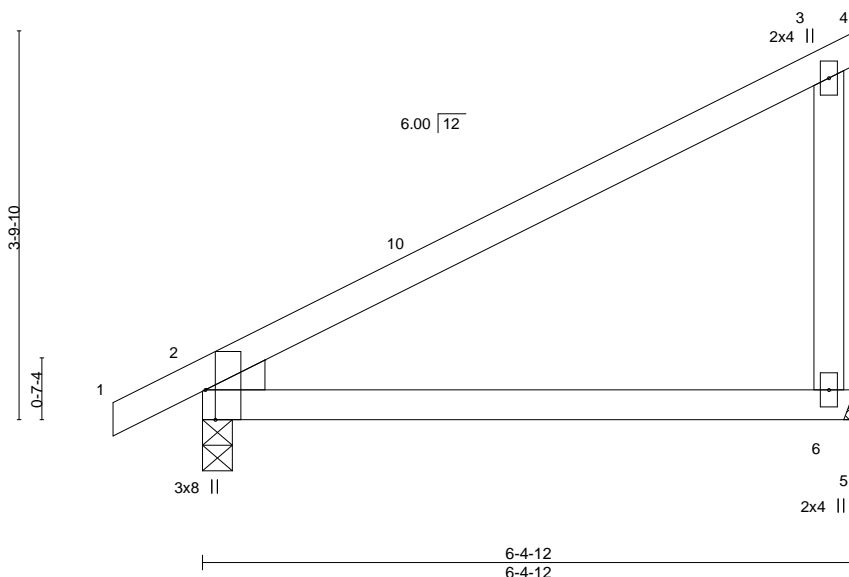


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.63
TCDL 20.0	Lumber DOL	1.15	BC 0.46
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
<b>DEFL.</b>	in (loc)	l/defl	L/d
Vert(LL)	0.09	6-9	>806
Vert(CT)	-0.18	6-9	>417
Horz(CT)	0.03	2	n/a
<b>PLATES</b>	<b>GRIP</b>		
MT20	197/144		
Weight: 21 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) 6=Mechanical, 2=0-3-8  
Max Horz 2=147(LC 11)  
Max Uplift 6=87(LC 12), 2=59(LC 12)  
Max Grav 6=348(LC 1), 2=421(LC 1)

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

TOP CHORD 3-6=-253/225

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-4-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 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.



February 4, 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/41 Woodside Ridge/MO
2630107	J8	Jack-Open	2	1	144671009
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:33 2021 Page 1

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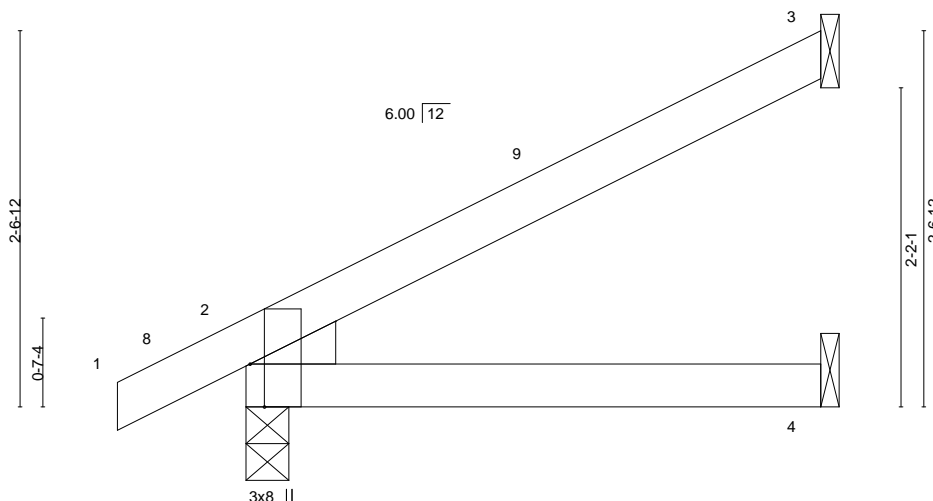


Plate Offsets (X,Y)--	[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	-0.03	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 11 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD

Structural wood sheathing directly applied or 3-10-15 oc purlins.

BOT CHORD

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

#### REACTIONS.

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

Max Horz 2=94(LC 12)

Max Uplift 3=60(LC 12), 2=36(LC 12), 4=3(LC 12)

Max Grav 3=143(LC 1), 2=299(LC 1), 4=76(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 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.



February 4, 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

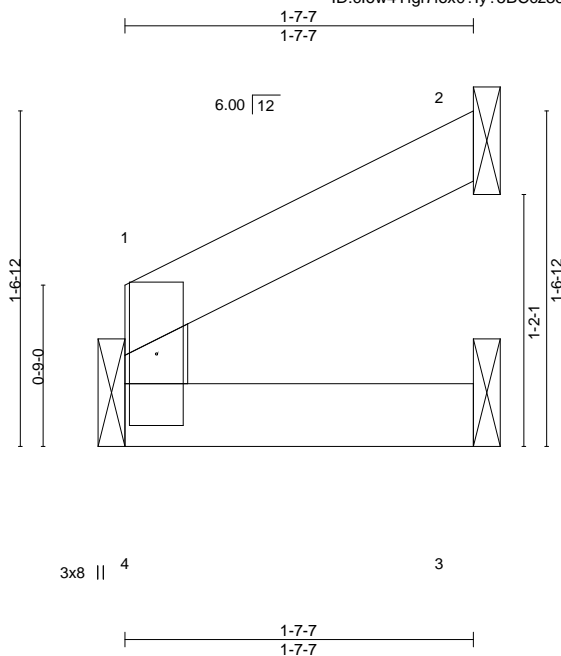
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	J9	Jack-Open	1	1	I44671010
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:33 2021 Page 1

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Scale = 1:10.7

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 0.04	Vert(LL)	-0.00	4	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	4	>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-MR						Weight: 4 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 1-7-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=Mechanical, 3=Mechanical  
Max Horz 4=29(LC 9)  
Max Uplift 2=30(LC 12), 3=2(LC 12)  
Max Grav 4=80(LC 1), 2=61(LC 1), 3=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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.



February 4, 2021

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

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

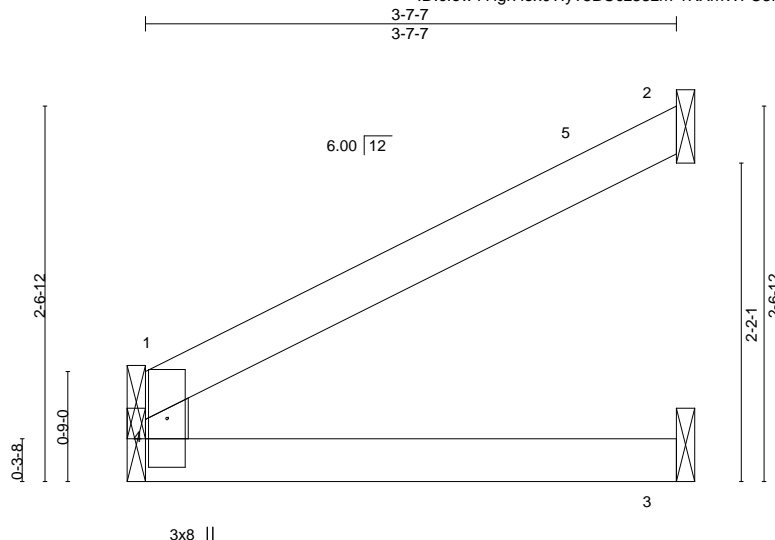
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671011
2630107	J10	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:20 2021 Page 1

ID:clow4YlGf7iox0?ly?5BCcz33zm-1KXmWFC3NXr2K84nwHkMmwDn59RrEZ4aTsSd4WzoZff



Scale = 1:15.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.00	3-4	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.01	3-4	>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-MR						Weight: 9 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-7 oc purlins, except end verticals.

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

#### REACTIONS.

All bearings Mechanical.

(lb) - Max Horz 4=292(LC 1), 1=-292(LC 1)

Max Uplift All uplift 100 lb or less at joint(s) 1, 2

Max Grav All reactions 250 lb or less at joint(s) 4, 1, 2, 3

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-6-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 2.
- 5) Non Standard bearing condition. Review required.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 4, 2021

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2630107	Truss J11	Truss Type Jack-Open	Qty 3	Ply 1	Summit/41 Woodside Ridge/MO 144671012
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:21 2021 Page 1

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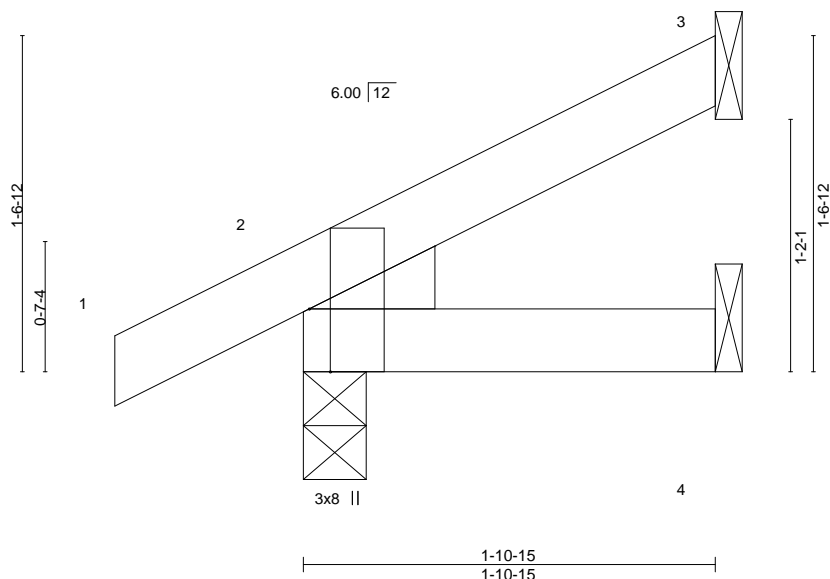


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			<b>DEFL.</b> in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 7 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-10-15 oc purlins.

BOT CHORD

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

#### REACTIONS.

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

Max Horz 2=54(LC 12)

Max Uplift 3=-27(LC 12), 2=-28(LC 12), 4=-4(LC 12)

Max Grav 3=60(LC 1), 2=201(LC 1), 4=35(LC 3)

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

#### NOTES-

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



February 4, 2021

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

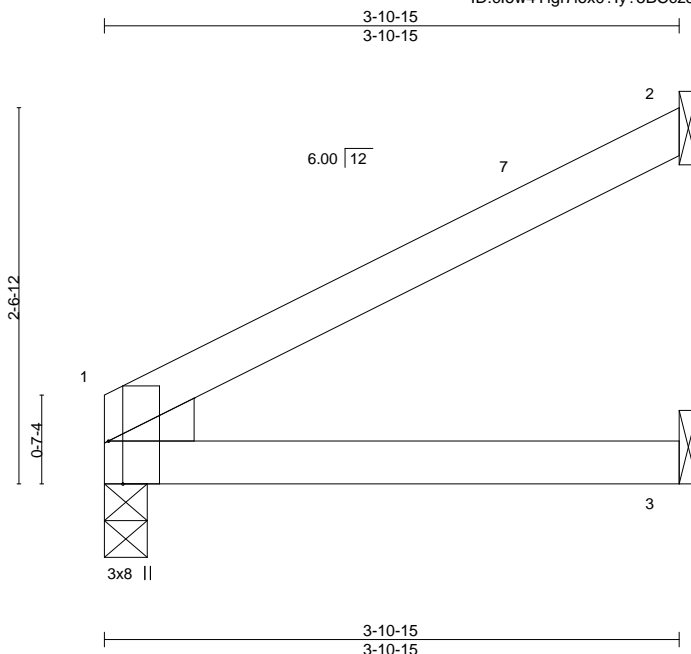
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2630107	Truss J12	Truss Type Jack-Open	Qty 1	Ply 1	Summit/41 Woodside Ridge/MO 144671013
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:21 2021 Page 1  
ID:clow4Ylgf7iox0?ly?5BCcz33zm-VW58jbDh8rvxlfzU\_Gbl8lyJYl3z0KjWCAczzoZfe



Scale = 1:15.7

Plate Offsets (X,Y)-- [1:0-0-1,0-0-3], [1:0-0-3,0-5-0], [1:0-3-8,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	0.25	Vert(LL)	0.02 3-6 >999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.03 3-6 >999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01 1 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 10 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 2=Mechanical, 3=Mechanical, 1=0-3-8  
Max Horz 1=79(LC 12)  
Max Uplift 2=61(LC 12), 3=4(LC 12), 1=14(LC 12)  
Max Grav 2=147(LC 1), 3=79(LC 3), 1=212(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 3, 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.



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2630107	Truss J13	Truss Type Jack-Open	Qty 1	Ply 1	Summit/41 Woodside Ridge/MO 144671014
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:22 2021 Page 1  
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-0-10-8 3-8-12  
0-10-8 3-8-12

Scale = 1:15.2

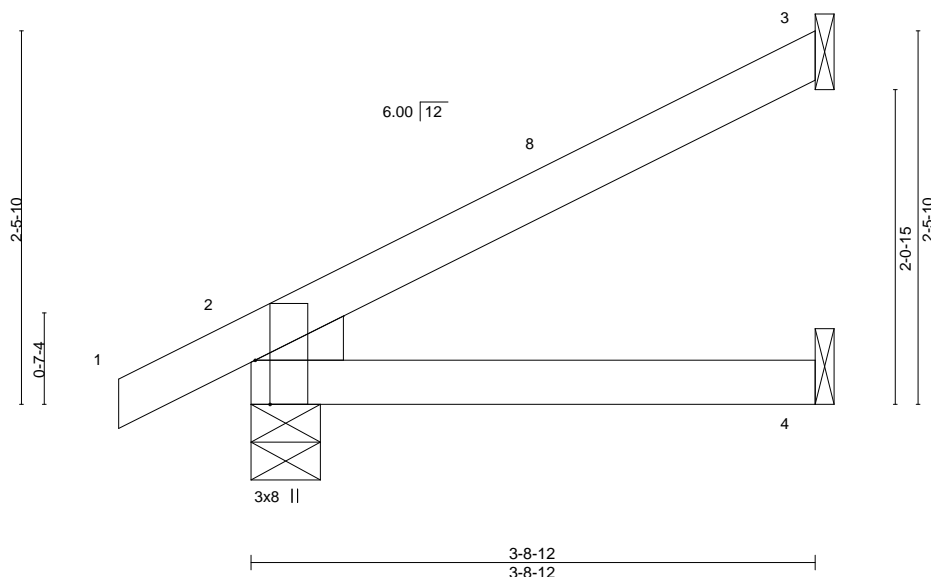


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21
TCDL 20.0	Lumber DOL	1.15	BC 0.17
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) 0.02 4-7 >999 240
			Vert(CT) -0.02 4-7 >999 180
			Horz(CT) 0.01 2 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 11 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD

Structural wood sheathing directly applied or 3-8-12 oc purlins.

BOT CHORD

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

#### REACTIONS.

(size) 3=Mechanical, 2=0-5-8, 4=Mechanical

Max Horz 2=90(LC 12)

Max Uplift 3=-57(LC 12), 2=-35(LC 12), 4=-3(LC 12)

Max Grav 3=135(LC 1), 2=290(LC 1), 4=73(LC 3)

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

#### NOTES-

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



February 4, 2021

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2630107	Truss J14	Truss Type Jack-Closed	Qty 2	Ply 1	Summit/41 Woodside Ridge/MO 144671015
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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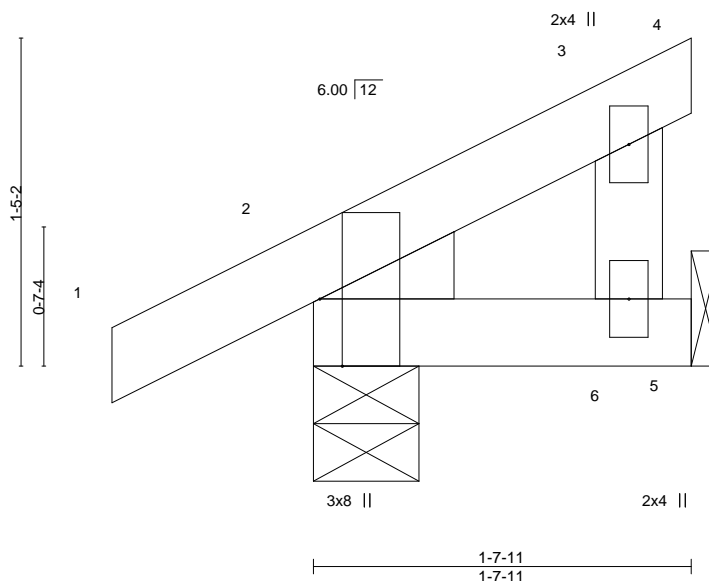


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	0.00	9	>999	240	MT20	197/144	
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	9	>999	180			
BCLL 0.0	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 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-5-8, 5=Mechanical  
Max Horz 2=48(LC 11)  
Max Uplift 2=-33(LC 12), 5=-19(LC 12)  
Max Grav 2=188(LC 1), 5=57(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2630107	Truss J15	Truss Type Jack-Closed	Qty 2	Ply 1	Summit/41 Woodside Ridge/MO 144671016
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:23 2021 Page 1

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0-10-8

1-7-11  
1-7-11

Scale = 1:10.0

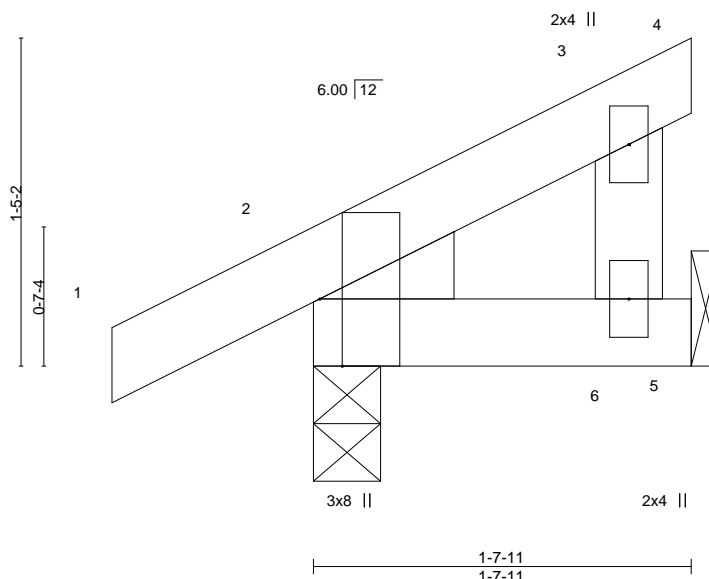


Plate Offsets (X,Y)--		[2:0-0-1,0-0-3], [2:0-0-3,0-5-0], [2:0-3-8,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			<b>DEFL.</b> in (loc) l/defl L/d
			Vert(LL) -0.00 9 >999 240
			Vert(CT) -0.00 9 >999 180
			Horz(CT) -0.00 2 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 7 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 1-7-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 5=Mechanical  
Max Horz 5=48(LC 11)  
Max Uplift 2=33(LC 12), 5=-19(LC 12)  
Max Grav 2=188(LC 1), 5=57(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 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.



February 4, 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/41 Woodside Ridge/MO	I44671017
2630107	J16	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:24 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-v5nHLdFZRMTomOY97plwmNKxmmKAMO9OUQqDHZoZfb



Scale = 1:21.4

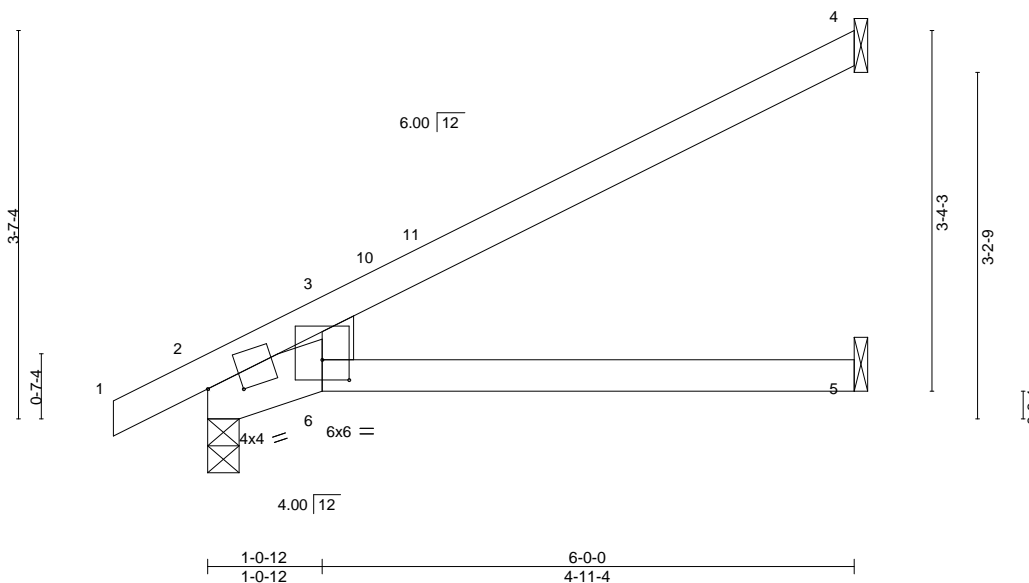


Plate Offsets (X,Y)--		[2:0-3-13,0-1-5], [3:0-1-12,0-0-14], [6:0-3-0,0-2-4]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.80	Vert(LL)	0.11	6	>651	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	-0.17	6	>422	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.05	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 17 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-6: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=136(LC 12)  
Max Uplift 4=116(LC 12), 2=46(LC 12)  
Max Grav 4=272(LC 1), 2=411(LC 1), 5=98(LC 3)

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

TOP CHORD 2-3=-370/71  
WEBS 3-6=-307/470

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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) 2 except (jt=lb) 4=116.
- 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.



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2630107	Truss J17	Truss Type Jack-Open	Qty 1	Ply 1	Summit/41 Woodside Ridge/MO 144671018
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:25 2021 Page 1 Job Reference (optional) ID:clow4Ylgf7iox0?ly?5BCcz33zm-NHLfZzGCC4UKQwzkjqKXT_wUNA5hvpYJd8AOlkzoZfa					

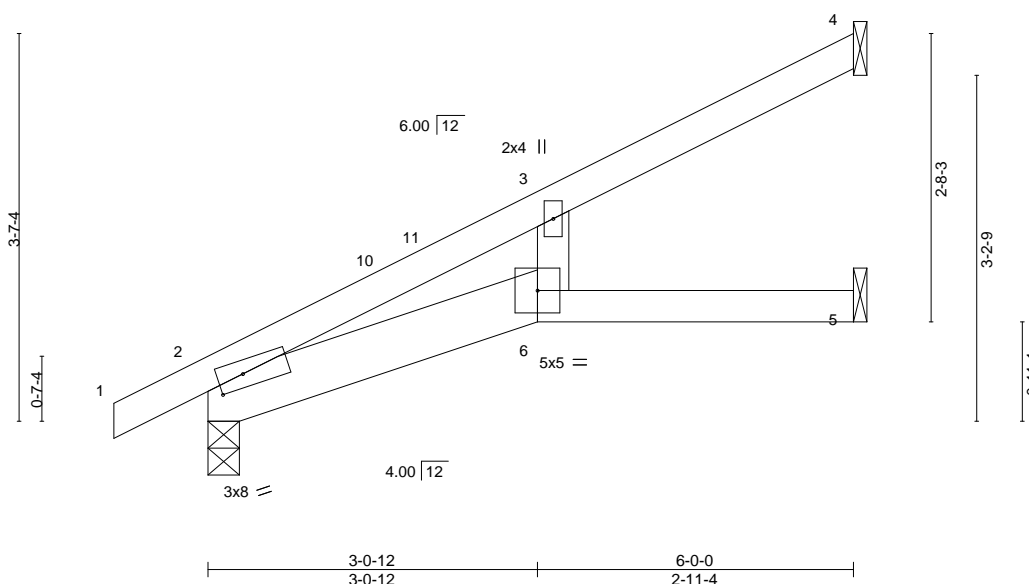


Plate Offsets (X,Y)-- [2:0-2-13,0-1-8]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	0.18	6	>399
TCDL 20.0	Lumber DOL	1.15	BC 0.30	Vert(CT)	-0.30	6	>235
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.09	5	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 19 lb	FT = 20%		

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-6: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

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

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=136(LC 12)  
Max Uplift 4=-108(LC 12), 2=-46(LC 12)  
Max Grav 4=292(LC 1), 2=411(LC 1), 5=58(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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) 2 except (jt=lb) 4=108.
- 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.



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

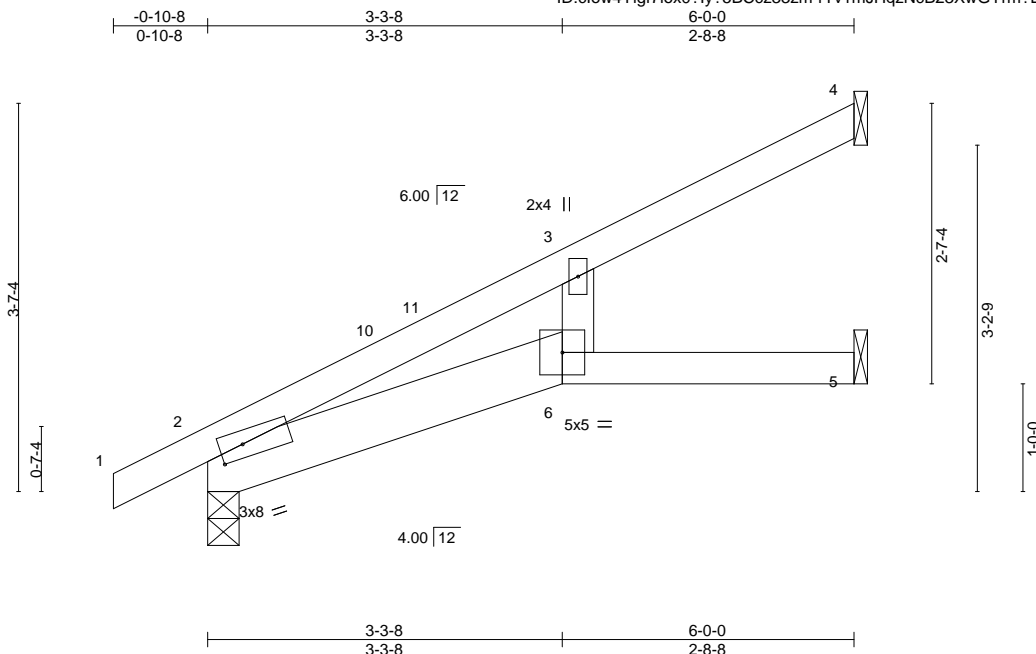
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671019
2630107	J18	Jack-Open	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:26 2021 Page 1

ID:clow4YlGf7iox0?ly?5BCcz33zm-rTv1mJHqzNcB23XwGYrm?BTfNZRleGqSsovxIAzoZfZ



Scale = 1:21.4

Plate Offsets (X,Y)-- [2:0-2-9,0-1-8]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.87	Vert(LL)	0.17	6	>416	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.29	6	>245	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.09	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 19 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-6: 2x6 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
Max Horz 2=136(LC 12)  
Max Uplift 4=-107(LC 12), 2=-46(LC 12)  
Max Grav 4=294(LC 1), 2=411(LC 1), 5=53(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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) 2 except (jt=lb) 4=107.
- 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.



February 4, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

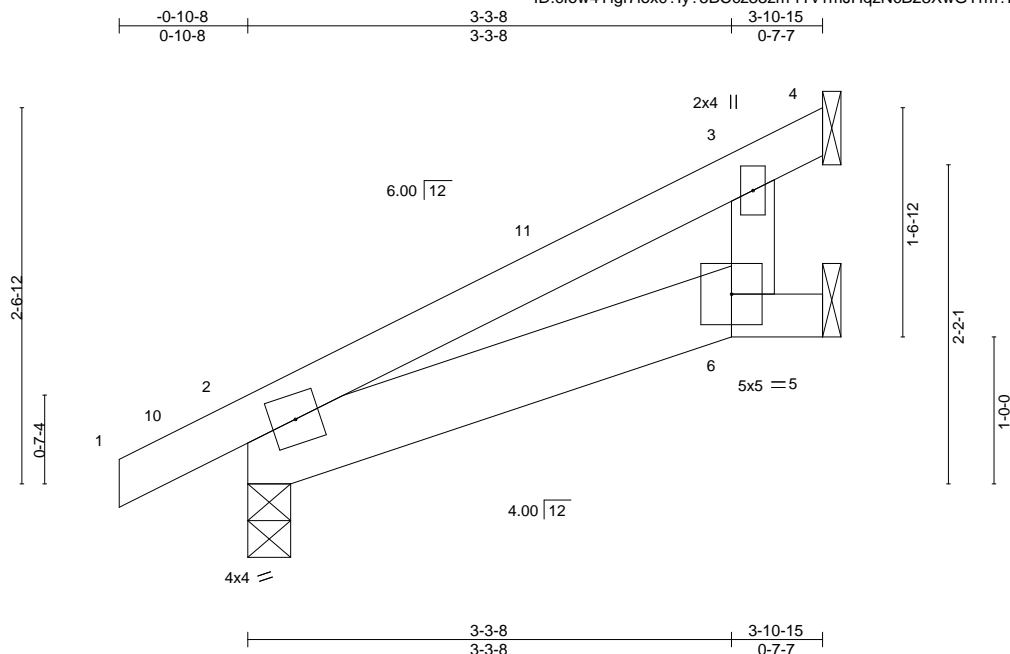
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671020
2630107	J19	Jack-Open	2	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:26 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-rTv1mJHqzNcB23XwGYrm?BTphZTTeGCSsovxlAzoZfZ



Scale = 1:15.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.01	6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.01	6-9	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	5	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 2x4 SPF No.2 \*Except\*  
 2-6: 2x6 SPF No.2  
 WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-15 oc purlins.  
 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=94(LC 12)  
 Max Uplift 4=65(LC 12), 2=36(LC 12)  
 Max Grav 4=197(LC 1), 2=299(LC 1), 5=11(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 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) 4, 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.



February 4, 2021

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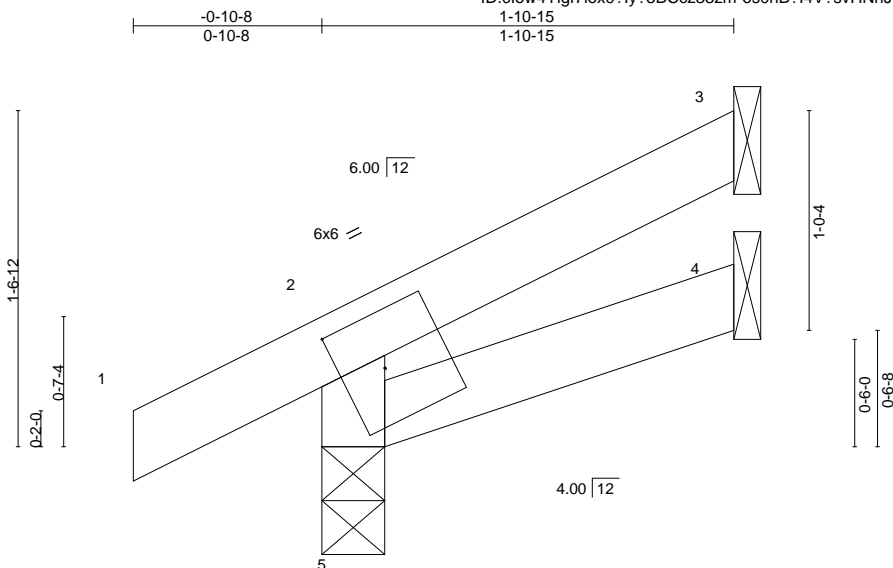
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671021
2630107	J20	Jack-Open	2	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:28 2021 Page 1

ID:clow4Ylgt7iox0?ly?5BCcz33zm-os0nB?14V?svHNhJOyuE5cYB?NBh6A3JU6O2M3zoZfX



Scale = 1:10.7

Plate Offsets (X,Y)--		[2:0-1-15,0-0-0], [2:0-2-7,0-3-0], [5:0-0-13,0-1-10]							
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	L/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.09		Vert(LL)	-0.00 5	>999	240
TCDL 20.0		Lumber DOL	1.15	BC 0.03		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					
						<b>PLATES</b>	<b>GRIP</b>		
						MT20	197/144		
						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 1-10-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 3=Mechanical, 4=Mechanical, 5=0-3-8  
Max Horz 5=48(LC 12)  
Max Uplift 3=-30(LC 12), 5=-30(LC 12)  
Max Grav 3=57(LC 1), 4=31(LC 3), 5=215(LC 1)

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

#### NOTES-

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



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	LG1	GABLE	1	1	144671022
Job Reference (optional)					

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:34 2021 Page 1  
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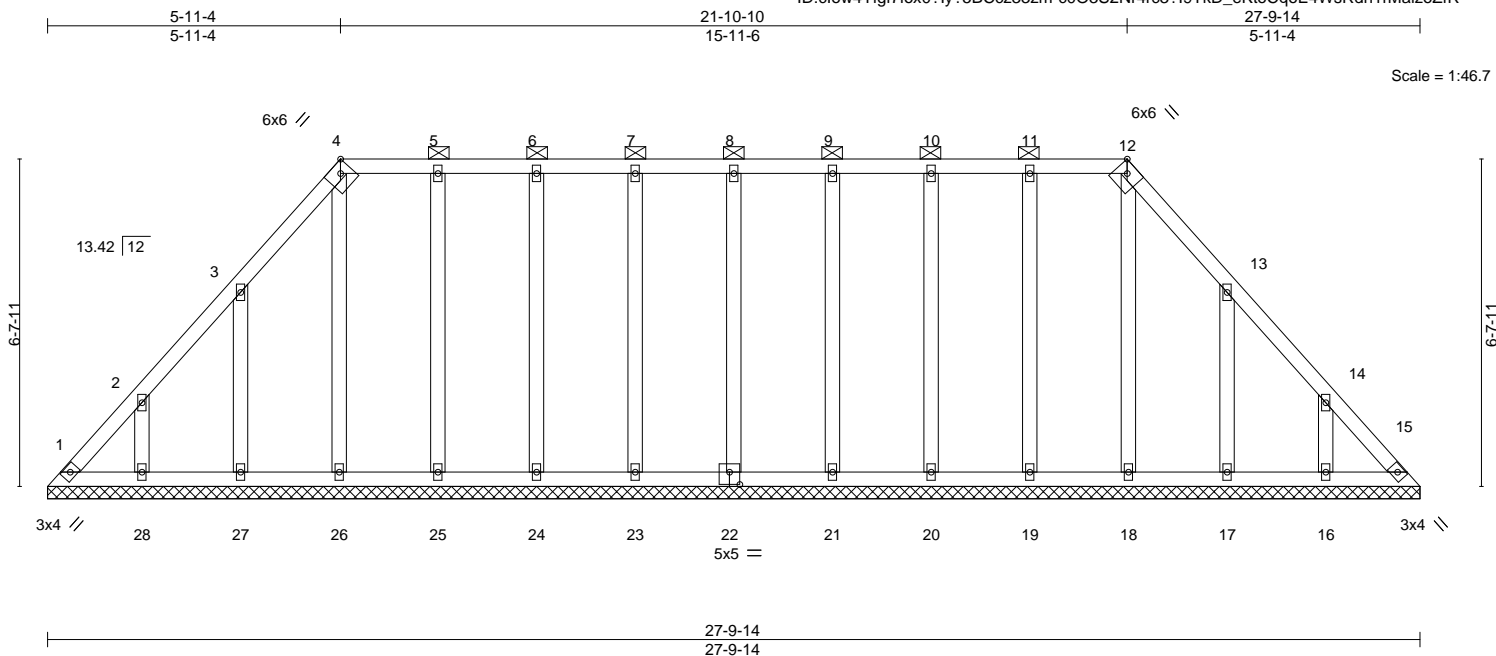


Plate Offsets (X,Y)--		[4:0-2-10,Edge], [12:0-2-10,Edge], [22:0-2-8,0-3-0]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.14
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.01 15 n/a n/a
			<b>PLATES</b>
			MT20
			<b>GRIP</b>
			197/144
			Weight: 144 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 27-9-14.  
(lb) - Max Horz 1=170(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except 27=155(LC 12), 28=140(LC 12), 17=155(LC 13), 16=141(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 28, 21, 20, 19, 18, 16 except 27=265(LC 19), 17=264(LC 20)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-11-4, Exterior(2R) 5-11-4 to 9-10-15, Interior(1) 9-10-15 to 21-10-10, Exterior(2R) 21-10-10 to 25-10-15, Interior(1) 25-10-15 to 27-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except (jt=lb) 27=155, 28=140, 17=155, 16=141.
- This truss 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.



February 4, 2021

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

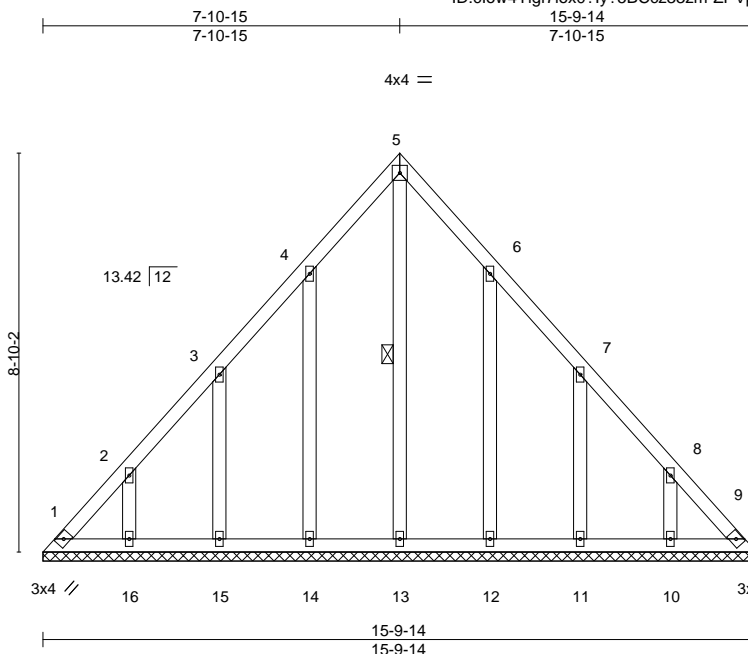
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 2630107	Truss LG2	Truss Type GABLE	Qty 1	Ply 1	Summit/41 Woodside Ridge/MO I44671023
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:36 2021 Page 1  
ID:clow4Y1gf7iox0?ly?5BCcz33zm-ZPVptkO5cSsmEclrse16PltYDbvL\_mfw9LKTebzoZfP



Scale = 1:51.1

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 0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 80 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.  
WEBS 1 Row at midpt 5-13

#### REACTIONS.

All bearings 15-9-14.  
(lb) - Max Horz 1=-229(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-145(LC 12), 15=-145(LC 12), 16=-142(LC 12), 12=-143(LC 13), 11=-146(LC 13), 10=-141(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=261(LC 19), 12=259(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-311/203, 8-9=-279/197

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 7-10-15, Exterior(2R) 7-10-15 to 10-10-15, Interior(1) 10-10-15 to 15-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=145, 15=145, 16=142, 12=143, 11=146, 10=141.
- 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.



February 4, 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

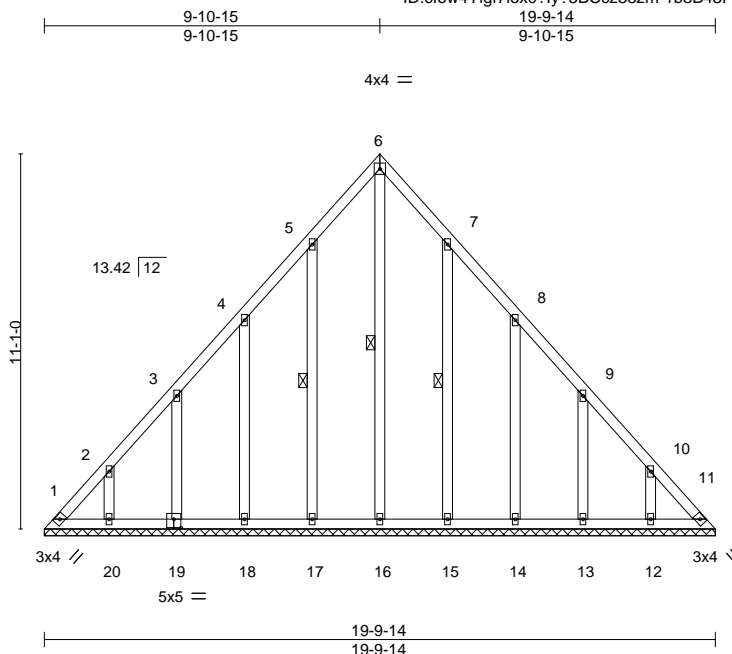
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	LG3	GABLE	1	1	I44671024
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:37 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-1b3B43PjNm\_dsm2QLYLyWQjp?FQjDw4O?40B1zoZfO



Scale = 1:68.1

Plate Offsets (X,Y)--	[19:0-2-8,0-3-0]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.01	11	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 112 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.  
WEBS 1 Row at midpt 6-16, 5-17, 7-15

#### REACTIONS.

All bearings 19-9-14.

(lb) - Max Horz 1=-289(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 11 except 1=-131(LC 10), 17=-140(LC 12), 18=-147(LC 12),  
19=-145(LC 12), 20=-144(LC 12), 15=-138(LC 13), 14=-148(LC 13), 13=-142(LC 13), 12=-142(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 18, 20, 14, 13, 12 except 1=297(LC 12), 11=262(LC 13),  
16=256(LC 13), 17=259(LC 19), 19=254(LC 19), 15=257(LC 20)

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

TOP CHORD 1-2=-415/264, 2-3=-287/214, 10-11=-370/256

BOT CHORD 1-20=-180/274, 19-20=-180/274, 18-19=-175/272, 17-18=-175/272, 16-17=-175/272,  
15-16=-175/272, 14-15=-175/272, 13-14=-175/272, 12-13=-175/272, 11-12=-175/272

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 9-10-15, Exterior(2R) 9-10-15 to 12-10-15, Interior(1) 12-10-15 to 19-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 11 except (jt=lb) 1=131, 17=140, 18=147, 19=145, 20=144, 15=138, 14=148, 13=142, 12=142.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 4, 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

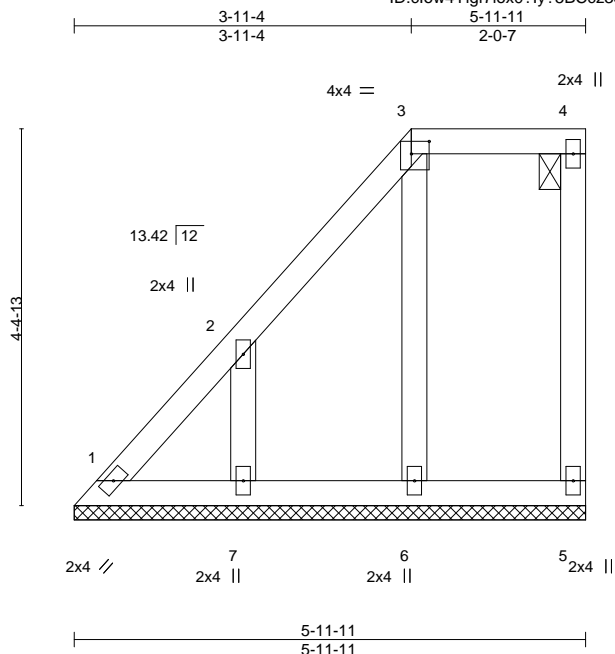
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	LG4	GABLE	1	1	I44671025
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:38 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-VndZIPQL837UUvSEz33aVjytTPb4ShUDcfpajUzoZfN



Scale = 1:26.9

Plate Offsets (X,Y)--		[3:0-2-8,0-1-12]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 25.0		Plate Grip DOL 1.15		TC 0.15		Vert(LL) n/a	-	n/a	999	MT20	197/144
TCDL 20.0		Lumber DOL 1.15		BC 0.03		Vert(CT) n/a	-	n/a	999		
BCLL 0.0		Rep Stress Incr YES		WB 0.07		Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-P						Weight: 26 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 5-11-11 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.

All bearings 5-11-11.  
 (lb) - Max Horz 1=164(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 6 except 7=164(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 7=275(LC 19)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-298/318  
 WEBS 2-7=-285/184

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-11-4, Exterior(2E) 3-11-4 to 5-9-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Provide adequate drainage to prevent water ponding.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6 except (jt=lb) 7=164.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 4, 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



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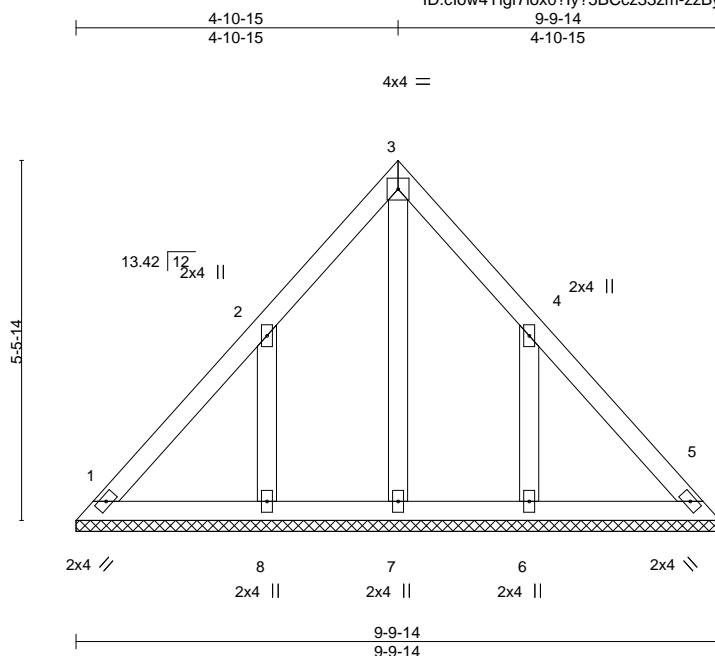
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	LG5	GABLE	1	1	I44671026
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:clow4Ylgt7iox0?ly?5BCcz33zm-zzByVIR\_vNFL531QXmap1xV31pxzB9?NrJZ7FwzoZfM



Scale = 1:35.1

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 0.10	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 39 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 9-9-14.  
(lb) - Max Horz 1=138(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=201(LC 12), 6=200(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=351(LC 19), 6=350(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-320/212, 4-6=-320/211

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 4-10-15, Exterior(2R) 4-10-15 to 7-10-15, Interior(1) 7-10-15 to 9-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=201, 6=200.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 4, 2021

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

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Chesterfield, MO 63017

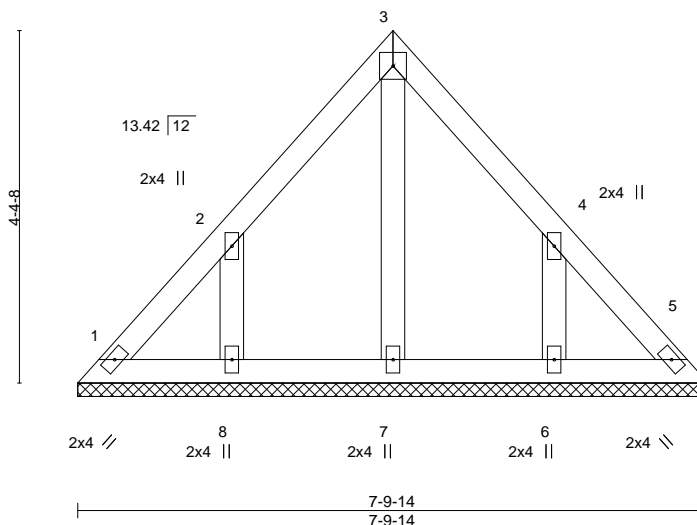
Job 2630107	Truss LG6	Truss Type GABLE	Qty 1	Ply 1	Summit/41 Woodside Ridge/MO 144671027
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

3-10-15 3-10-15 7-9-14 3-10-15

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:40 2021 Page 1  
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4x4 =

Scale = 1:28.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 29 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 7-9-14.  
(lb) - Max Horz 1=-108(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-161(LC 12), 6=-161(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=274(LC 19), 6=273(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-8=-275/178, 4-6=-275/178

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-15, Exterior(2R) 3-10-15 to 6-10-15, Interior(1) 6-10-15 to 7-5-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=161, 6=161.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 4, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

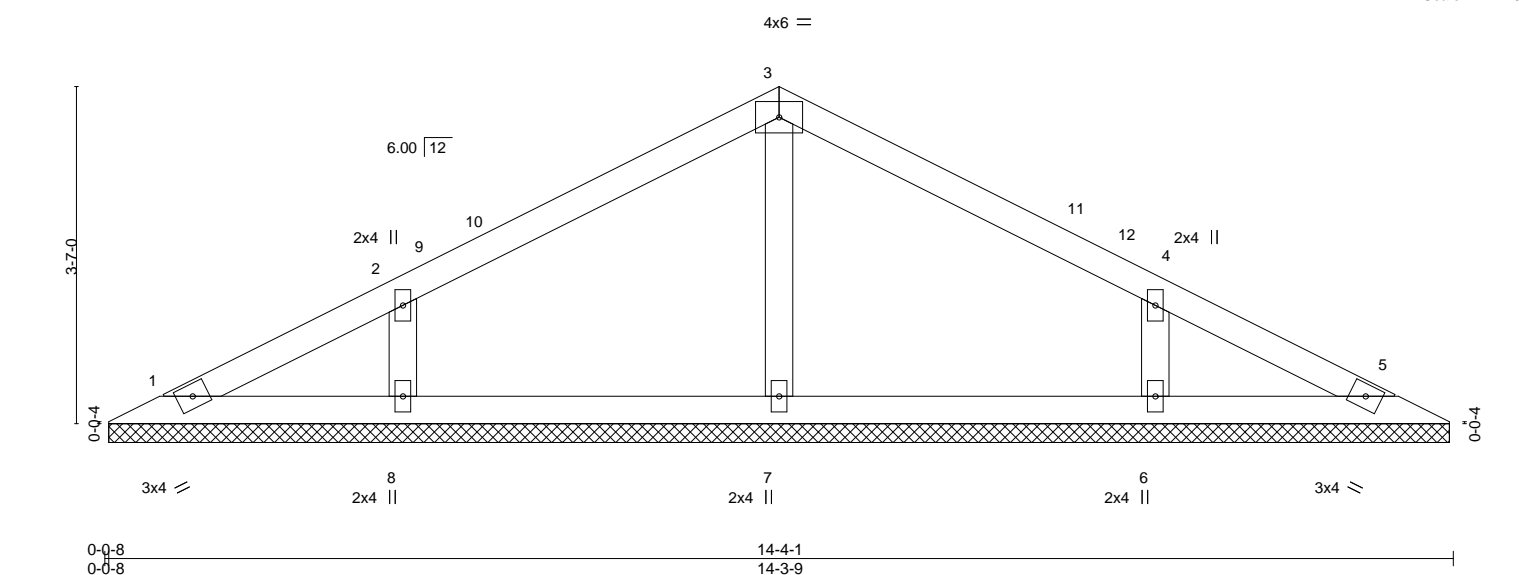
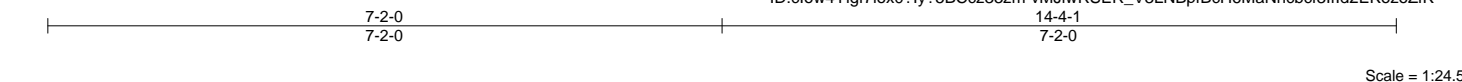
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671028
2630107	V1	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:41 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-vMJwRSER\_V3LNBpfBcH6MaNncbf3lfld2EKozoZfK



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 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 39 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
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 14-3-1.  
(lb) - Max Horz 1=-58(LC 17)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 8=-126(LC 12), 6=-126(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=386(LC 1), 8=433(LC 25), 6=433(LC 26)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-7=-303/73, 2-8=-359/196, 4-6=-359/196

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-2-0, Exterior(2R) 7-2-0 to 10-2-0, Interior(1) 10-2-0 to 13-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7 except (jt=lb) 8=126, 6=126.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 4, 2021

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

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

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

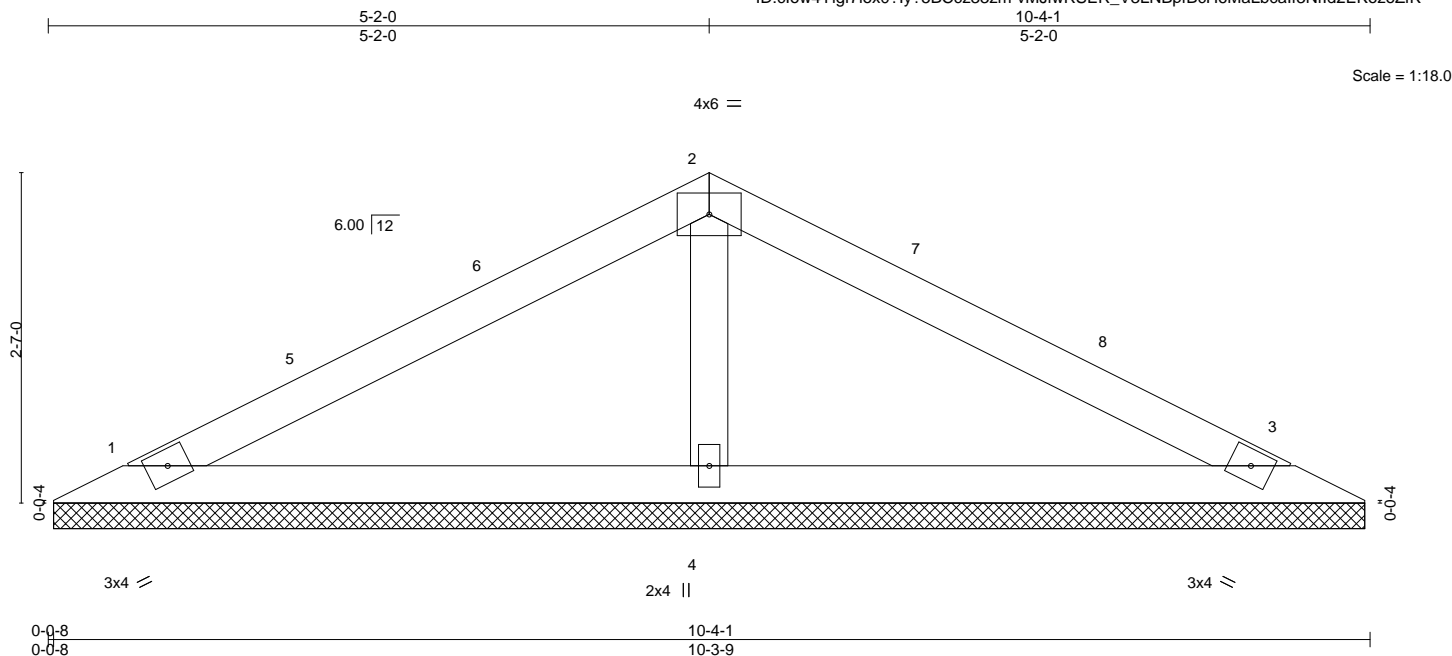


16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671029
2630107	V2	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:41 2021 Page 1  
ID:clow4Ylgf7iox0?ly?5BCcz33zm-vMjiwRSER\_V3LNBpfBcH6MaLbcaIf3Nfld2EKozoZfK



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)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 26 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=10-3-1, 3=10-3-1, 4=10-3-1  
Max Horz 1=40(LC 16)  
Max Uplift 1=44(LC 12), 3=52(LC 13), 4=47(LC 12)  
Max Grav 1=232(LC 25), 3=232(LC 26), 4=540(LC 1)

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

WEBS 2-4=-394/187

#### NOTES-

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



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Chesterfield, MO 63017

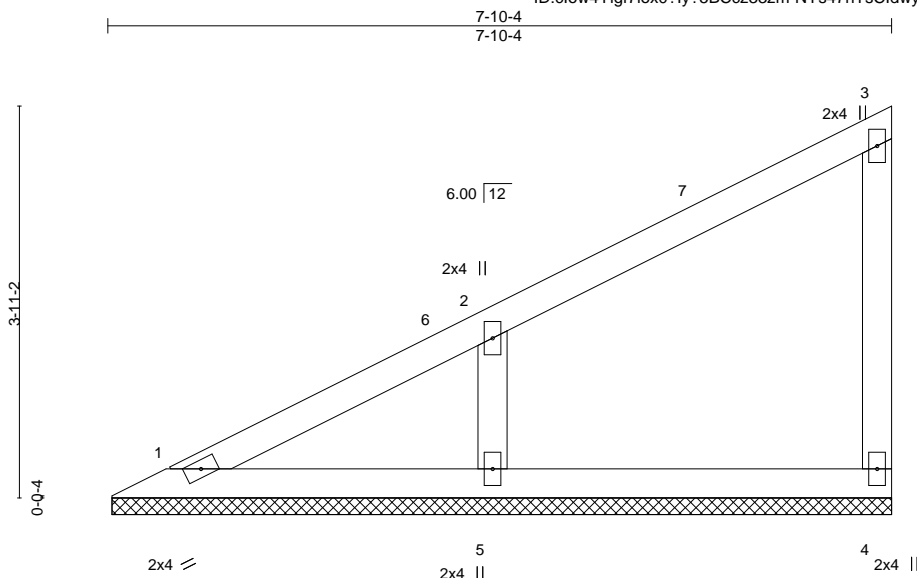
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	V3	Valley	1	1	144671030
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:42 2021 Page 1

ID:clow4Ylgl7iox0?ly?5BCcz33zm-NYs47nTsCldwyXm?Cv8WfZ7Xh0xkOWipXHnnsFzoZfJ



Scale = 1:23.1

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 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 23 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=7-9-12, 4=7-9-12, 5=7-9-12  
Max Horz 1=148(LC 9)  
Max Uplift 4=31(LC 9), 5=128(LC 12)  
Max Grav 1=132(LC 20), 4=166(LC 1), 5=489(LC 1)

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

TOP CHORD 1-2=-251/176  
WEBS 2-5=-400/265

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-10-4, Interior(1) 3-10-4 to 7-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=128.
- 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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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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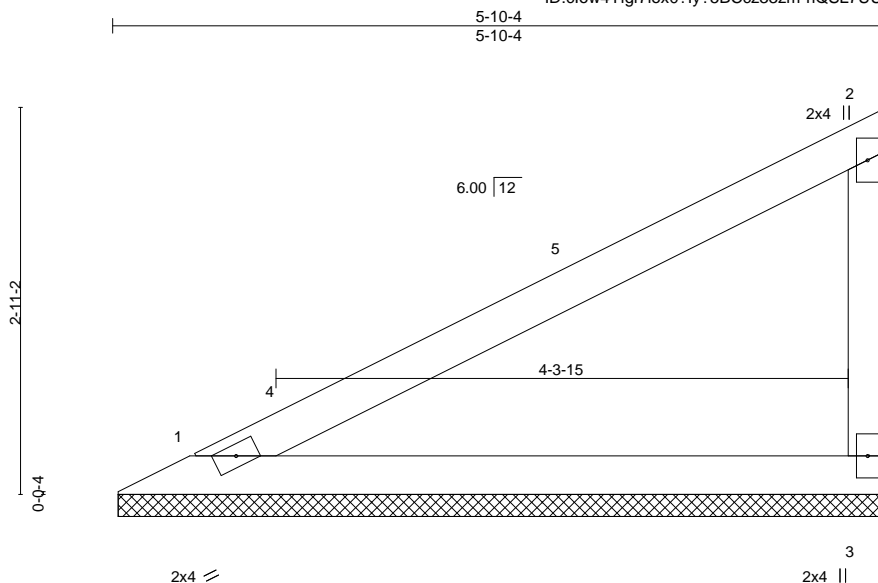
Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO	144671031
2630107	V4	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:43 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-rlQSL7UUychnahLBmcfICmgcZQE7zmymxXLOhzoZfl



Scale = 1:17.4

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 0.64	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 16 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 5-10-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=5-9-12, 3=5-9-12  
Max Horz 1=106(LC 9)  
Max Uplift 1=-38(LC 12), 3=-65(LC 12)  
Max Grav 1=279(LC 1), 3=279(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

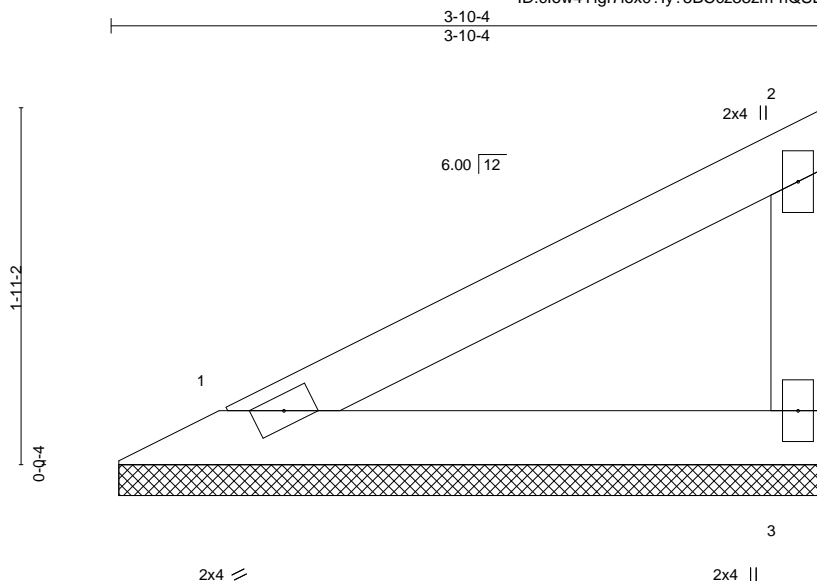
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Job 2630107	Truss V5	Truss Type Valley	Qty 1	Ply 1	Summit/41 Woodside Ridge/MO I44671032
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:43 2021 Page 1  
ID:clow4Ylgf7iox0?ly?5BCcz33zm-rlQSL7UUyicnahLBmcfICmgjEQHD7zmymxXLOhzoZfl



Scale = 1:12.4

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.09	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: 10 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=3-9-12, 3=3-9-12  
Max Horz 1=64(LC 9)  
Max Uplift 1=23(LC 12), 3=40(LC 12)  
Max Grav 1=169(LC 1), 3=169(LC 1)

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

#### NOTES-

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



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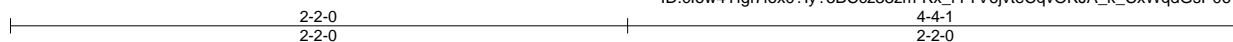
16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Summit/41 Woodside Ridge/MO
2630107	V6	Valley	1	1	I44671033
Job Reference (optional)					

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:44 2021 Page 1

ID:clow4Ylgf7iox0?ly?5BCcz33zm-Kx\_rYTV6jvteCqvOKJA\_k\_CxWqdGsP06?bGuw7zoZfH



Scale = 1:8.1

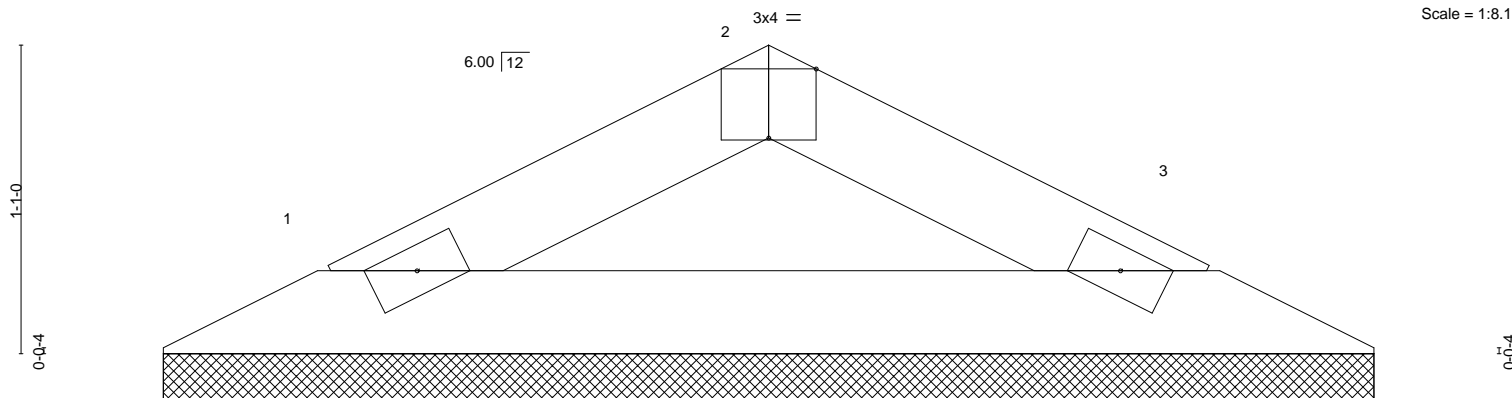


Plate Offsets (X,Y)-- [2:0-2-0,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a 999
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a 999
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 9 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=4-3-1, 3=4-3-1  
Max Horz 1=14(LC 16)  
Max Uplift 1=23(LC 12), 3=23(LC 13)  
Max Grav 1=169(LC 1), 3=169(LC 1)

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

#### NOTES-

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



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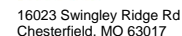
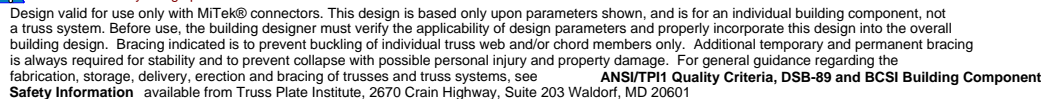
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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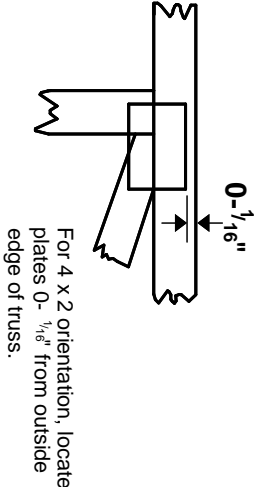
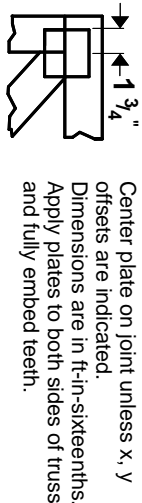
16023 Swingley Ridge Rd  
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8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Feb 4 08:56:45 2021 Page 1  
ID:clow4Ylqf7iox0?ly25BCcz33zm-o7YDmpVkJUD?Vp Uau1hDHB14tD FbssFDF0RTazoZfG



# Symbols

## PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

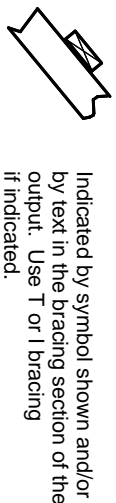
This symbol indicates the required direction of slots in connector plates.

## PLATE SIZE

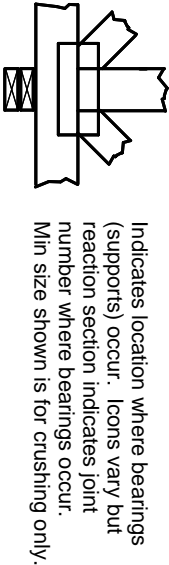
4 X 4

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

## LATERAL BRACING LOCATION

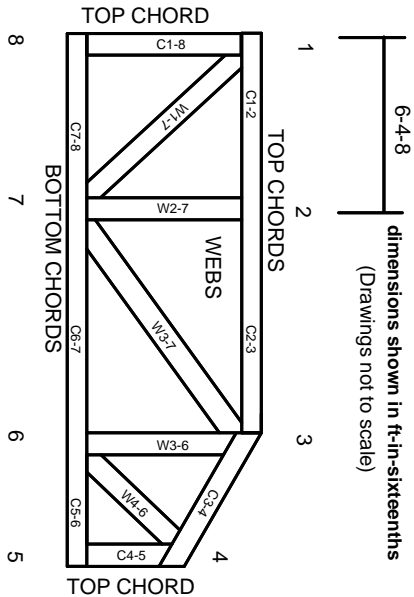


## BEARING



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

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:  
ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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