



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

Re: 2339007
Summit/5 Hawthorn Ridge

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: I41495590 thru I41495617

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

Missouri COA: Engineering 001193



June 2, 2020

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 2339007	Truss A1	Truss Type Common Supported Gable	Qty 1	Ply 1	Summit/5 Hawthorn Ridge I41495590
Job Reference (optional)					

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:22 2020 Page 1

ID:xKFGJ7evN?7xhJE66FFHnCzvA57-8ZEU_nit5WxlaunlZnMTumhU7soOcbe?lbLBYtzAN33

-1-0-0 10-0-0 20-0-0 21-0-0
1-0-0 10-0-0 10-0-0 1-0-0

4x4 =

Scale = 1:41.4

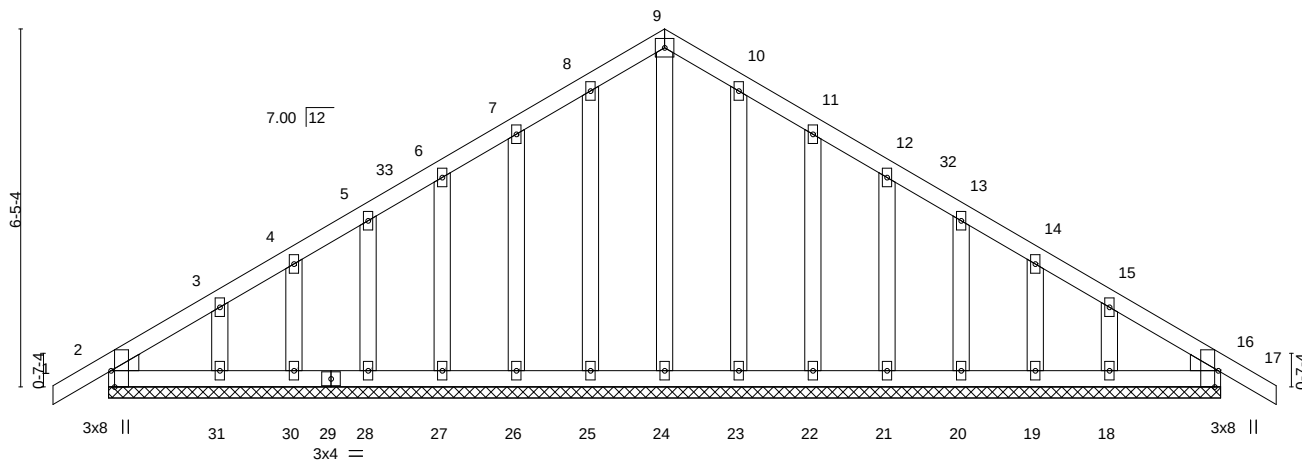


Plate Offsets (X,Y)--	[2:0-0-2,0-0-4], [2:0-0-5,0-4-8], [2:0-3-8,Edge], [16:0-0-2,0-0-4], [16:0-0-5,0-4-8], [16:0-3-8,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	0.00 16	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00 16	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00 16	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 103 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 20-0-0.
(lb) - Max Horz 2=120(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1-4-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18.
- 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.



June 2,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

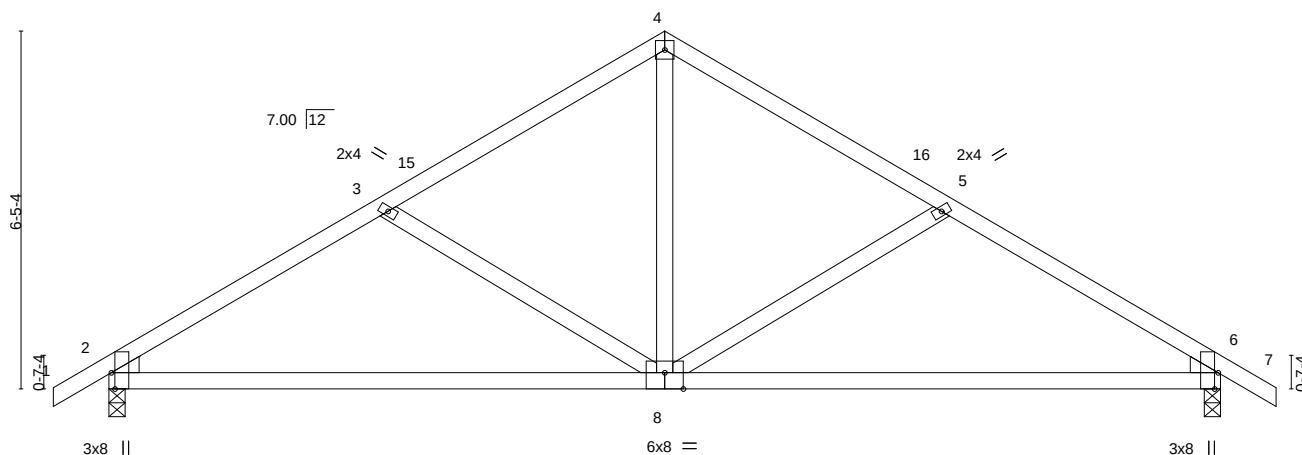
Job 2339007	Truss A2	Truss Type Common	Qty 1	Ply 1	Summit/5 Hawthorn Ridge I41495591
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:24 2020 Page 1
ID:xKFGJ7evN?7xhJE66FFHnCzvA57-4yMfPTj7d8B0pCwhgBOxzBmmkfJ94SrlCvqlczAN31

1-0-0 5-0-4 10-0-0 14-11-12 20-0-0 21-0-0
1-0-0 5-0-4 4-11-12 4-11-12 5-0-4 1-0-0

4x4 ||

Scale = 1:41.5



10-0-0 20-0-0
10-0-0 10-0-0

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 16.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	-0.13	8-11	>999	MT20	197/144
(Ground Snow=20.0)	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.27	8-11	>879		
TCDL 10.0	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.02	6	n/a		
BCLL 0.0	Code IRC2018/TPI2014		Matrix-AS						
BCDL 10.0								Weight: 73 lb	FT = 20%

LUMBER-

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

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-120(LC 8)
Max Uplift 2=-27(LC 10), 6=-27(LC 11)
Max Grav 2=797(LC 15), 6=797(LC 16)

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

TOP CHORD 2-3=-1087/60, 3-4=-817/55, 4-5=-817/55, 5-6=-1087/60
BOT CHORD 2-8=-48/900, 6-8=0/900
WEBS 4-8=0/559, 5-8=-330/104, 3-8=-330/104

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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) 2, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 2,2020

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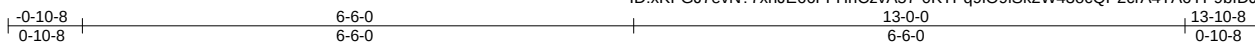
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss B1	Truss Type Common Supported Gable	Qty 1	Ply 1	Summit/5 Hawthorn Rldge Job Reference (optional)	I41495592
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:26 2020 Page 1

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4x4 =

Scale = 1:27.2

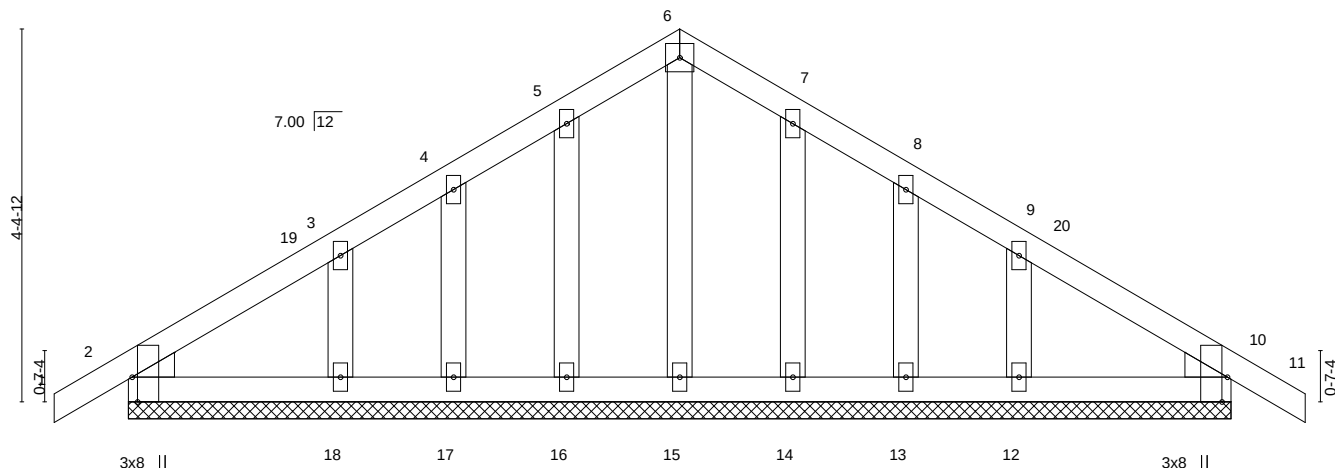


Plate Offsets (X,Y)-- [2:0-0-2,0-0-4], [2:0-0-5,0-4-8], [2:0-3-8,Edge], [10:0-0-2,0-0-4], [10:0-0-5,0-4-8], [10:0-3-8,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	0.00	10	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	10	n/r		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	10	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 56 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 13-0-0.
(lb) - Max Horz 2=-81(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 17, 18, 14, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 18, 14, 13, 12

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1-4-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 17, 18, 14, 13, 12.
- 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.



June 2,2020

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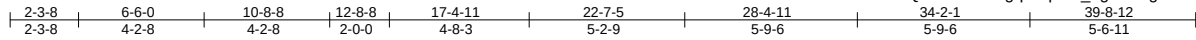
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss C1	Truss Type GABLE	Qty 1	Ply 1	Summit/5 Hawthorn Rldge I41495593
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:29 2020 Page 1

ID:xKFGJ7evN?7xhJE66FFHnCzvA57-Qv9YSAnGSgqJvzpeTl_6gFTZeg3ElcL1MBY3HzzAN2y



Scale = 1:77.2

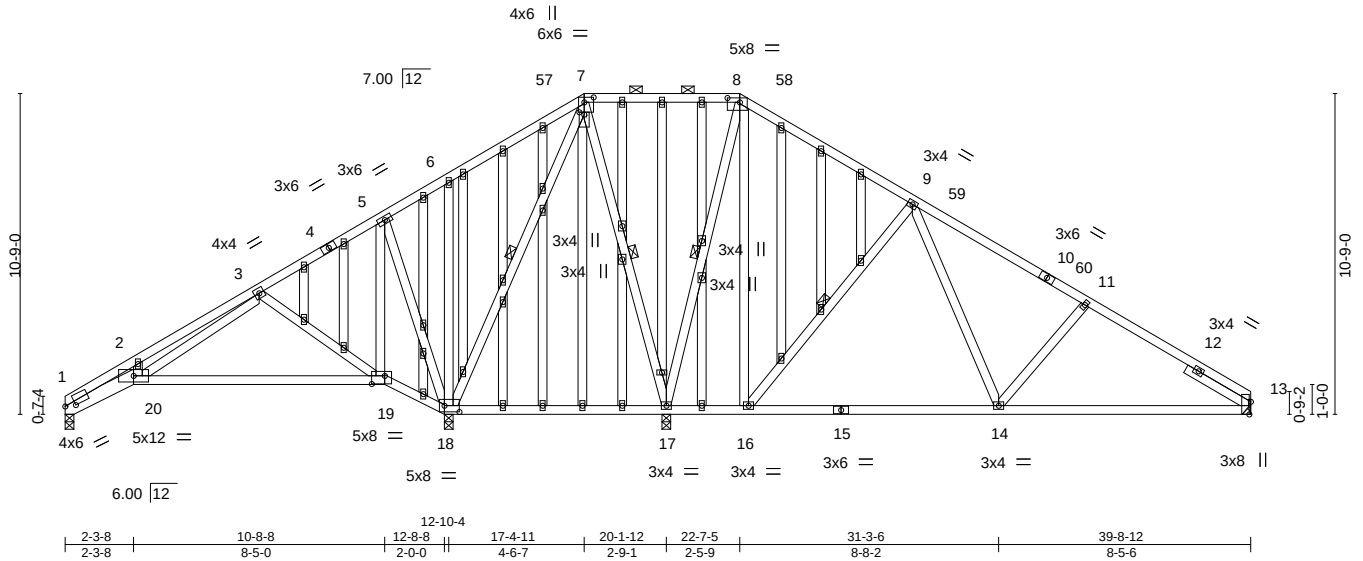


Plate Offsets (X,Y)-- [1:0-4-1,0-1-6], [7:0-0-15,0-2-0], [7:0-3-12,0-2-0], [8:0-5-0,0-1-12], [13:0-5-2,Edge], [18:0-6-0,0-2-8], [19:0-5-4,0-3-4]

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.48	in (loc) l/defl L/d	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.52	Vert(LL) -0.14 19-20 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.64	Vert(CT) -0.29 19-20 >525 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 13 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 314 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-20: 2x6 SPF No.2
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (10-0-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-17, 8-17, 9-16, 7-18

REACTIONS. All bearings 0-3-8 except (jt=length) 13=Mechanical.
(lb) - Max Horz 1=191(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 1, 13 except 18=144(LC 10)
Max Grav All reactions 250 lb or less at joint(s) 1 except 18=1276(LC 36),
17=1560(LC 28), 13=610(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-586/0, 2-3=-596/58, 3-5=-87/643, 5-6=-58/736, 6-7=-23/731, 7-8=0/489,
8-9=-15/358, 9-11=-648/139, 11-13=-709/120
BOT CHORD 1-20=-153/665, 18-19=-491/98, 17-18=-411/108, 14-16=-3/289, 13-14=-47/657
WEBS 3-20=-88/822, 3-19=-422/104, 5-18=-352/37, 6-18=-351/86, 7-17=-305/26,
8-17=-1180/33, 8-16=-53/716, 9-16=-795/129, 9-14=-7/487, 11-14=-313/103,
7-18=-449/69

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCDL: ASCE 7-16; Pg=20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 4) Unbalanced snow loads have been considered for this design.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Refer to girder(s) for truss to truss connections.
- 10) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13 except (jt=lb) 18=144.
- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and conform to standard ANSI/TPI 1.



June 2,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge	I41495593
2339007	C1	GABLE	1	1	Job Reference (optional)	

- NOTES-**
- 13) 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.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss C2	Truss Type Piggyback Base	Qty 3	Ply 1	Summit/5 Hawthorn Rldge Job Reference (optional)	I41495594
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:33 2020 Page 1

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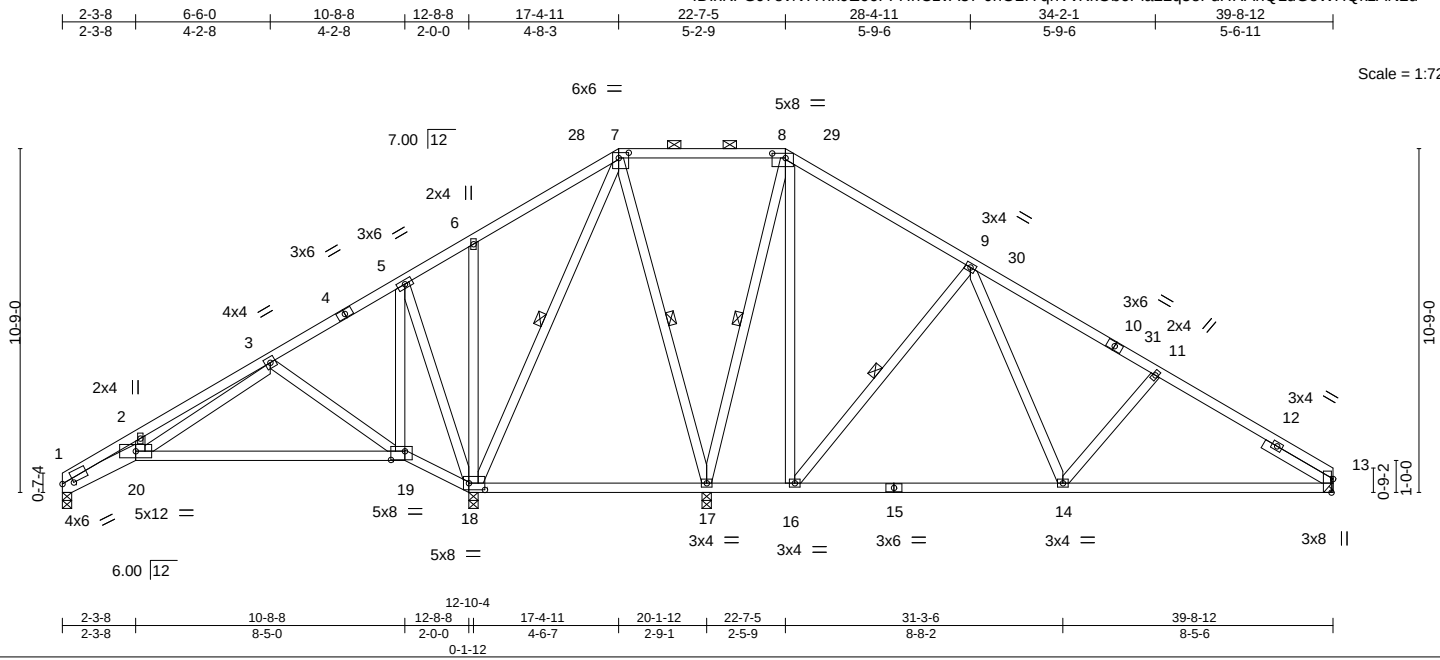


Plate Offsets (X,Y)-- [1:0-4-1,0-1-6], [7:0-3-12,0-2-0], [8:0-5-0,0-1-12], [13:0-5-2,Edge], [18:0-6-0,0-2-8], [19:0-5-4,0-3-4]

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 20.4 (Ground Snow=20.0)	2-0-0	TC 0.48	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.52	Vert(LL) -0.14 19-20 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.64	Vert(CT) -0.29 19-20 >525 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 13 n/a n/a		
	Code IRC2018/TPI2014			Weight: 208 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2 *Except*	2-0-0 oc purlins (10-0-0 max.): 7-8.
1-20: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 7-17, 8-17, 9-16, 7-18
SLIDER Right 2x4 SPF No.2 2-6-0	

REACTIONS. All bearings 0-3-8 except (jt=length) 13=Mechanical.
 (lb) - Max Horz 1=191(LC 7)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 13 except 18=144(LC 10)
 Max Grav All reactions 250 lb or less at joint(s) 1 except 18=1276(LC 36), 17=1560(LC 28), 13=610(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-586/0, 2-3=-596/58, 3-5=-87/643, 5-6=-58/736, 6-7=-23/731, 7-8=0/489,
 8-9=-15/358, 9-11=-648/139, 11-13=-709/120
 BOT CHORD 1-20=-153/665, 18-19=-491/98, 17-18=-411/108, 14-16=-3/289, 13-14=-47/657
 WEBS 3-20=-88/822, 3-19=-422/104, 5-18=-352/37, 6-18=-351/86, 7-17=-305/26,
 8-17=-1180/33, 8-16=-53/716, 9-16=-795/129, 9-14=-7/487, 11-14=-313/103,
 7-18=-449/69

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Unbalanced snow loads have been considered for this design.
- 4) Provide adequate drainage to prevent water ponding.
- 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) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13 except (jt=lb) 18=144.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) 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.



June 2,2020

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss C3	Truss Type Piggyback Base	Qty 3	Ply 1	Summit/5 Hawthorn Rldge Job Reference (optional)	I41495595
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:36 2020 Page 1

ID: xKFGJ7evN?77xhJE66FFHnCzvA57-jF4BwZsfoqiJ2r_NjclSjGieVOCupf3zmKx13zAN2r

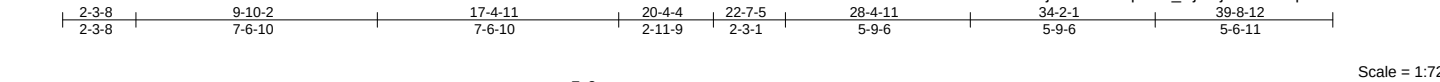


Plate Offsets (X,Y)-- [1:0-3-13,0-1-10], [5:0-5-0,0-1-12], [7:0-2-8,0-2-1], [12:0-5-2,Edge], [16:0-4-0,0-2-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	
TCLL 20.4		Plate Grip DOL	1.15	TC 0.75		in (loc)	l/defl
(Ground Snow=20.0)		Lumber DOL	1.15	BC 0.82		Vert(LL)	>999
TCDL 10.0		Rep Stress Incr	YES	WB 0.47		Vert(CT)	>635
BCLL 0.0		Code IRC2018/TPI2014		Matrix-AS		Horz(CT)	0.13 16 n/a n/a
BCDL 10.0							
						PLATES	GRIP
						MT20	197/144
						MT20HS	148/108
						Weight: 188 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
1-20: 2x6 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (10-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-18, 4-17, 5-16, 8-15
JOINTS 1 Brace at Jt(s): 21

REACTIONS. (size) 1=0-3-8, 16=0-3-8, 12=Mechanical
Max Horz 1=191(LC 7)
Max Uplift 1=-15(LC 10), 16=-30(LC 10), 12=-71(LC 11)
Max Grav 1=770(LC 28), 16=2128(LC 28), 12=714(LC 38)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2842/196, 2-4=-1100/62, 4-5=-274/147, 5-6=-29/312, 6-7=-21/466, 7-8=-67/343,
8-10=-768/153, 10-12=-881/152
BOT CHORD 1-20=-263/2627, 18-20=-260/2321, 17-18=-34/899, 15-16=-37/688, 16-21=-503/26,
6-21=-362/36, 13-15=-23/465, 12-13=-72/787
WEBS 2-20=-11/890, 2-18=-1450/229, 4-18=0/441, 4-17=-1032/139, 5-17=-14/660,
5-16=-987/70, 8-15=-904/113, 8-13=0/512, 10-13=-307/103, 7-21=-357/9

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- 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.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 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) 1, 16, 12.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 2,2020

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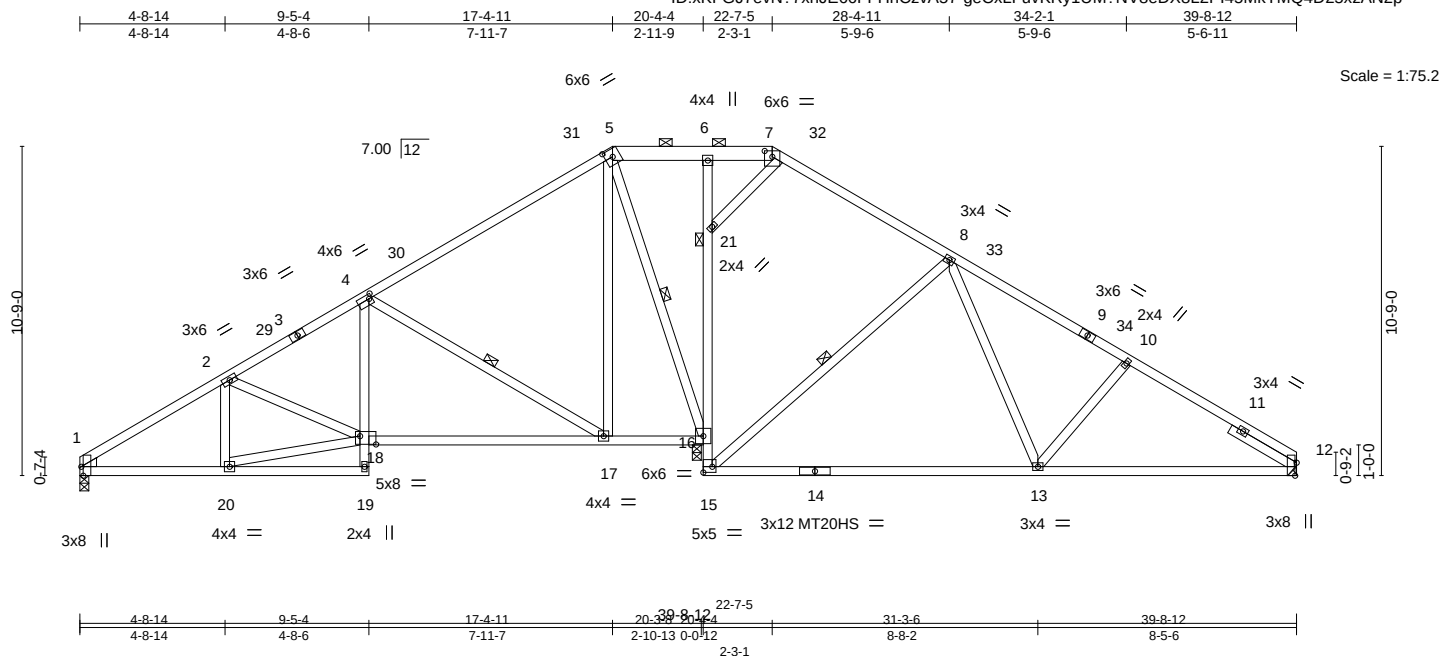
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss C4	Truss Type Piggyback Base	Qty 3	Ply 1	Summit/5 Hawthorn Rldge Job Reference (optional)	I41495596
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:38 2020 Page 1

ID: xKFGJ7evN?7xhJE66FFHnCzvA57-geCxLFuvKRY1UM?NV8eDX8L2PI45MkYMQ4D25xzAN2p



Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Ridge	I41495597
2339007	D1	Common Supported Gable	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:40 2020 Page 1

ID: xKFGJ7evN?7xhJE66FFHnCzvA57-c1JimxwAs2Cklf9mcYghcZRZn6yRqkVftOi8AqzAN2n

0-10-8	10-4-12	20-9-8	21-8-0
0-10-8	10-4-12	10-4-12	0-10-8

Scale = 1:36.4

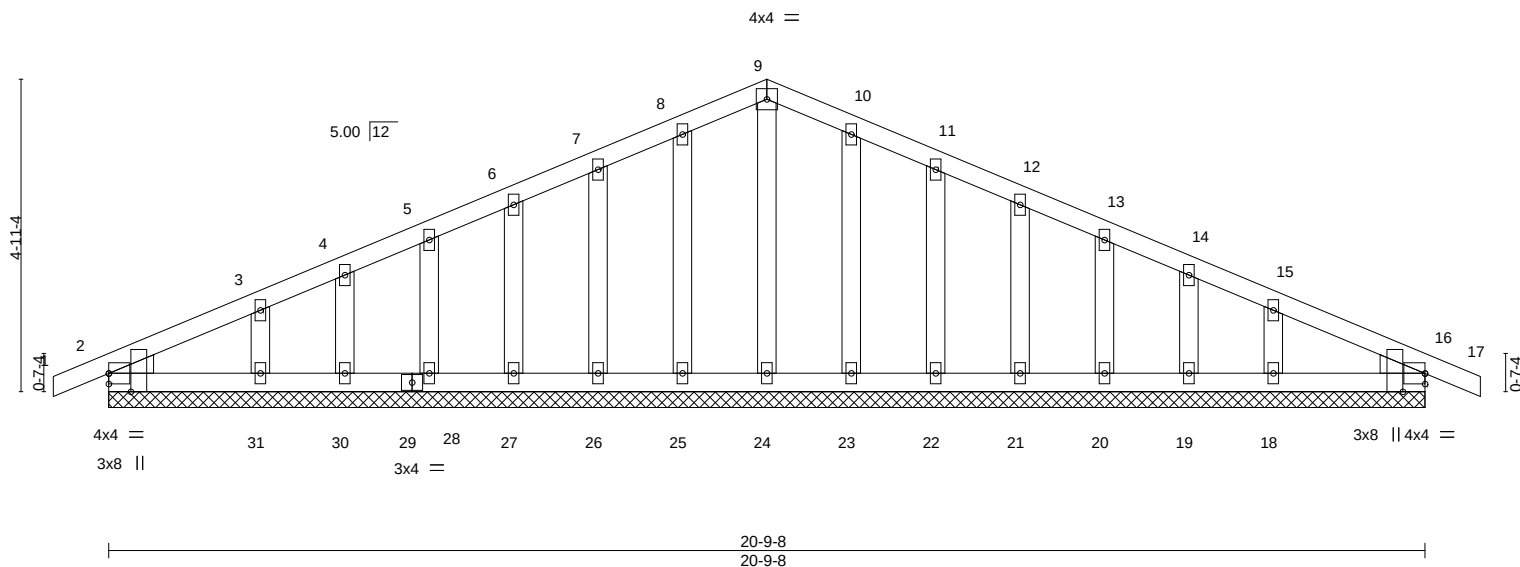


Plate Offsets (X,Y)-- [2:0-3-7,Edge], [16:0-3-7,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL 16.0		Plate Grip DOL 1.15		TC 0.04	Vert(LL) 0.00 16	n/r	120	MT20	197/144
(Ground Snow=20.0)		Lumber DOL 1.15		BC 0.03	Vert(CT) 0.00 16	n/r	120		
TCDL 10.0		Rep Stress Incr YES		WB 0.03	Horz(CT) 0.00 16	n/a	n/a		
BCLL 0.0		Code IRC2018/TPI2014		Matrix-S				Weight: 92 lb	FT = 20%
BCDL 10.0									

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

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

REACTIONS. All bearings 20-9-8.
(lb) - Max Horz 2=44(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Gable requires continuous bottom chord bearing.
- 8) Gable studs spaced at 1-4-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18, 16.
- 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.



June 2,2020

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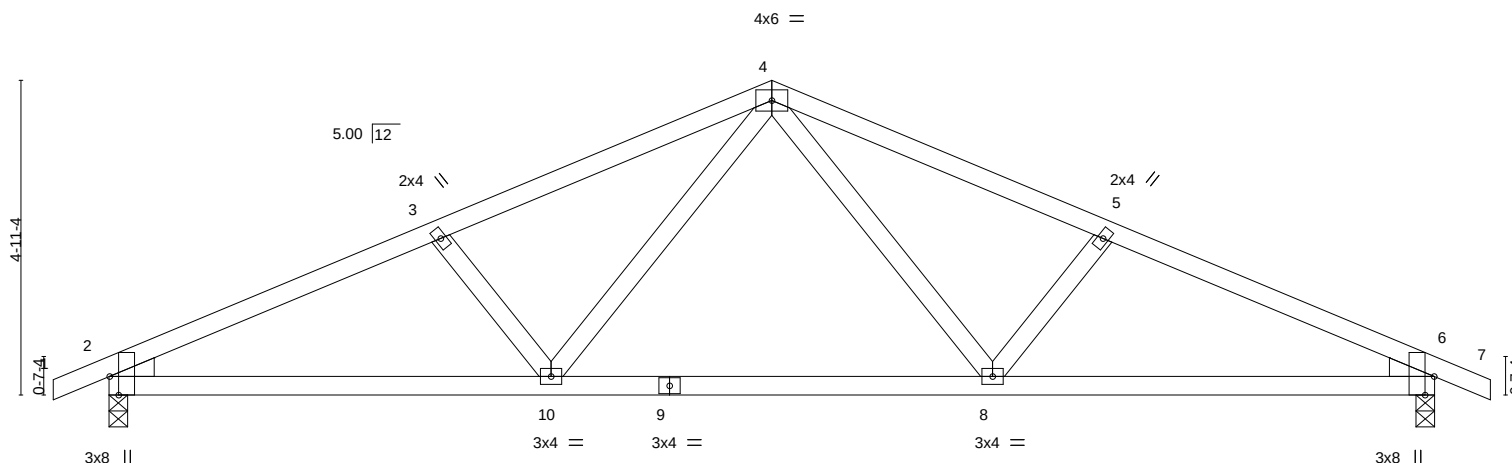
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss D2	Truss Type Common	Qty 4	Ply 1	Summit/5 Hawthorn Ridge I41495598
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:41 2020 Page 1
ID: xKFGJ7evN77xhJE66FFHnCzvA57-4Dt4zHwodMLcLpkyAGCw9nzfLWB1ZAXo62SiGzAN2m

0-10-8 0-10-8	5-2-7 5-2-7	10-4-12 5-2-5	15-7-1 5-2-5	20-9-8 5-2-7	21-8-0 0-10-8
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Scale = 1:36.1



6-11-3 6-11-3	13-10-5 6-11-2	20-9-8 6-11-3
Plate Offsets (X,Y)-- [2:0-0-0,0-0-1], [2:0-0-1,0-5-11], [2:0-3-8,Edge], [6:0-0-0,0-0-1], [6:0-0-1,0-5-11], [6:0-3-8,Edge]		

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	2-0-0	TC 0.37	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.46	Vert(LL) -0.06 8-10 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.16 8-10 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 72 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=44(LC 10)
Max Uplift 2=-31(LC 10), 6=-31(LC 11)
Max Grav 2=823(LC 15), 6=823(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1433/60, 3-4=-1271/62, 4-5=-1271/63, 5-6=-1433/61
BOT CHORD 2-10=-54/1280, 8-10=0/845, 6-8=-10/1280
WEBS 4-8=-20/448, 5-8=-299/90, 4-10=-20/448, 3-10=-299/90

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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) 2, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 2,2020

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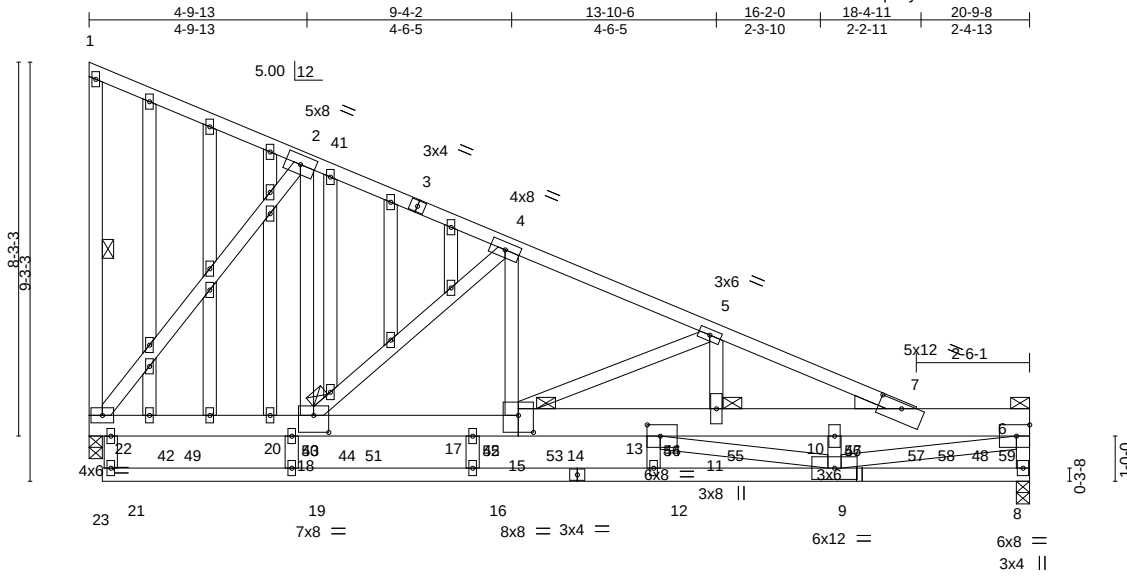
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge
2339007	D3	GABLE	1	2	I41495599

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:43 2020 Page 1

ID:xKFGJ7evN77xhJE66FFHnCzvA57-0c?QOzy29zbJb7tKHhEOEC3uhJmK1t95aMxpm9zAN2k



Scale = 1:50.9

0-4-0 4-5-12 4-9-13 8-5-12 9-4-2 12-5-12 13-10-6 16-2-0 16-5-12 18-4-11 20-9-8 0-4-0 4-1-12 0-4-1 3-7-15 0-10-6 3-1-10 1-4-10 2-3-10 0-3-12 1-10-15 2-4-13										
Plate Offsets (X,Y)-- [7:0-6-0,0-1-8], [13:0-3-8,0-3-0], [15:0-4-0,0-4-8], [18:0-4-0,0-4-8]										
LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP
TCLL	16.0	2-0-0		TC	0.83	in (loc)	l/defl	L/d	MT20	197/144
(Ground Snow=20.0)		Plate Grip DOL	1.15	BC	0.85	Vert(LL)	-0.18	13	>999	240
TCDL	10.0	Lumber DOL	1.15	WB	0.93	Vert(CT)	-0.32	13	>768	180
BCLL	0.0	Rep Stress Incr	NO			Horz(CT)	0.07	8	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS						
									Weight: 339 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-0-12 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
15-22: 2x6 SPF No.2, 6-15: 2x8 SP 2400F 2.0E	6-0-0 oc bracing: 8-9.
WEBS 2x4 SPF No.2	6-0-0 oc bracing: 6-7
OTHERS 2x4 SPF No.2	WEBS 1 Row at midpt 1-22
WEDGE	JOINTS 1 Brace at Jt(s): 18, 15, 11, 6
Right: 2x4 SP No.3	

REACTIONS.	(size) 22=0-3-8, 8=0-3-8
Max Horz 22=-235(LC 8)	
Max Uplift 22=-482(LC 11), 8=-363(LC 11)	
Max Grav 22=4203(LC 15), 8=4300(LC 15)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-3058/358, 4-5=-6116/689, 5-7=-8621/940
BOT CHORD	20-22=-213/2771, 18-20=-213/2771, 17-18=-542/5478, 15-17=-542/5478, 13-15=-832/7896, 11-13=-259/2094, 10-11=-259/2094, 7-10=-259/2094, 6-7=-5826/569, 8-9=-513/48
WEBS	2-22=-4451/547, 2-18=-489/4295, 4-18=-3613/454, 4-15=-364/3339, 5-15=-2556/307, 5-11=-175/1867, 6-8=-4100/382, 9-10=-3112/386, 6-9=-638/6563, 9-13=-596/6048

- NOTES-**
- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 8-6 2x4 - 1 row at 0-7-0 oc, member 9-10 2x4 - 1 row at 0-7-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)



June 2,2020

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Ridge
2339007	D3	GABLE	1	2	I41495599
Job Reference (optional)					

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:43 2020 Page 2
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- NOTES-**
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 733 lb down and 105 lb up at 1-8-12, 733 lb down and 105 lb up at 3-8-12, 733 lb down and 105 lb up at 5-8-12, 667 lb down and 111 lb up at 7-8-12, 667 lb down and 111 lb up at 9-8-12, 667 lb down and 111 lb up at 11-8-12, 570 lb down and 97 lb up at 13-8-12, 565 lb down and 97 lb up at 15-8-12, and 526 lb down and 100 lb up at 17-8-12, and 513 lb down and 86 lb up at 19-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 13) Studding applied to ply: 1(Front)

- LOAD CASE(S)** Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-7=-52, 6-7=-122, 9-23=-20, 9-58=-81, 8-58=-122
 - Concentrated Loads (lb)
 - Vert: 15=-667(F) 11=-570(F) 39=-526(F) 42=-733(F) 43=-733(F) 44=-733(F) 45=-667(F) 46=-667(F) 47=-565(F) 48=-513(F)

 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Ridge	I41495600
2339007	E1	GABLE	1	1		
Job Reference (optional)						

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:48 2020 Page 1

ID: xKFGJ7evN77xhJE66FFHnCzva57-NZojRg0BzWDchumI4EqZxFmuhKfaik7jeeZSMzAN2f

0-3-8 3-10-3 11-6-10 33-6-0 34-4-8
0-3-8 3-6-11 7-8-6 21-11-6 0-10-8

Scale = 1:68.9

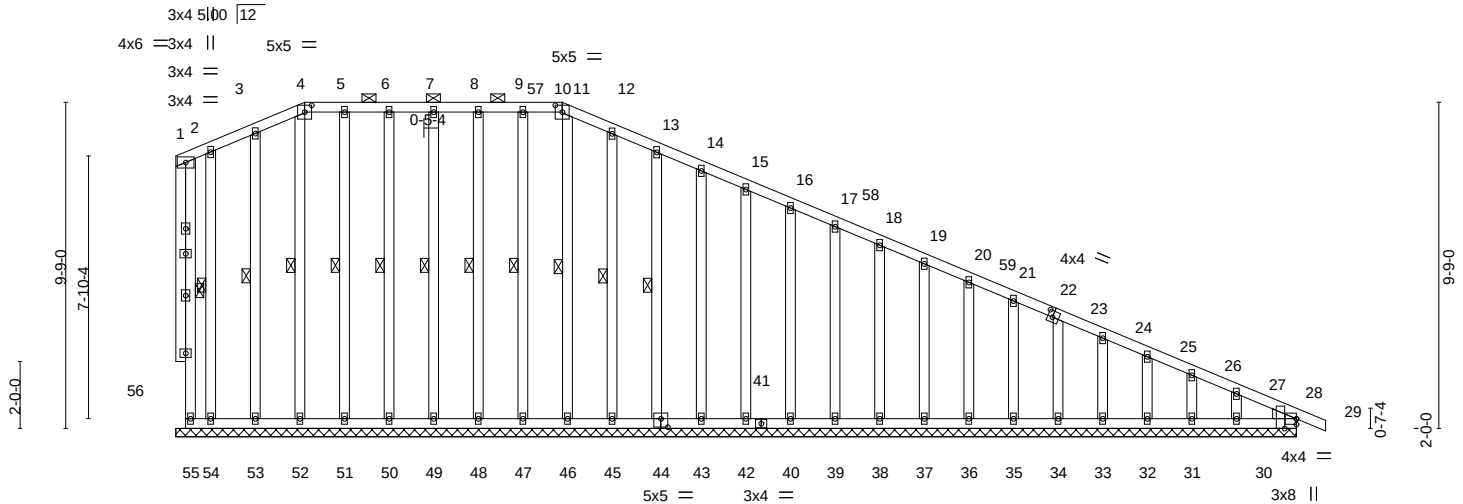


Plate Offsets (X,Y)--	[4:0-2-8,0-2-7], [10:0-0-0,0-1-12], [10:0-2-8,0-2-7], [11:0-1-12,0-0-12], [22:0-1-12,0-2-4], [22:0-0-0,0-1-12], [23:0-1-14,0-0-0], [28:0-3-7,Edge], [44:0-2-8,0-3-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4 (Ground Snow=20.0)	2-0-0	TC 0.17	Vert(LL)	0.00	28	n/r	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.08	Vert(CT)	0.00	28	n/r		
BCLL 0.0	Lumber DOL 1.15	WB 0.12	Horz(CT)	0.01	28	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 269 lb	FT = 20%
	Code IRC2018/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-10.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 1-55, 13-44, 12-45, 11-46, 9-47, 8-48, 7-49, 6-50, 5-51, 4-52, 3-53, 2-54
OTHERS 2x4 SPF No.2	
WEDGE	
Right: 2x4 SPF No.2	

REACTIONS.	All bearings 33-6-0.
(lb) - Max Horz	55=-241(LC 6)
Max Uplift	All uplift 100 lb or less at joint(s) 55, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30
Max Grav	All reactions 250 lb or less at joint(s) 55, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 40, 39, 38, 37, 36, 35, 34, 33, 32, 28, 31, 30

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
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- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 55, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30.
 - This truss 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.



June 2,2020

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MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge	I41495601
2339007	E2	Piggyback Base	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:51 2020 Page 1

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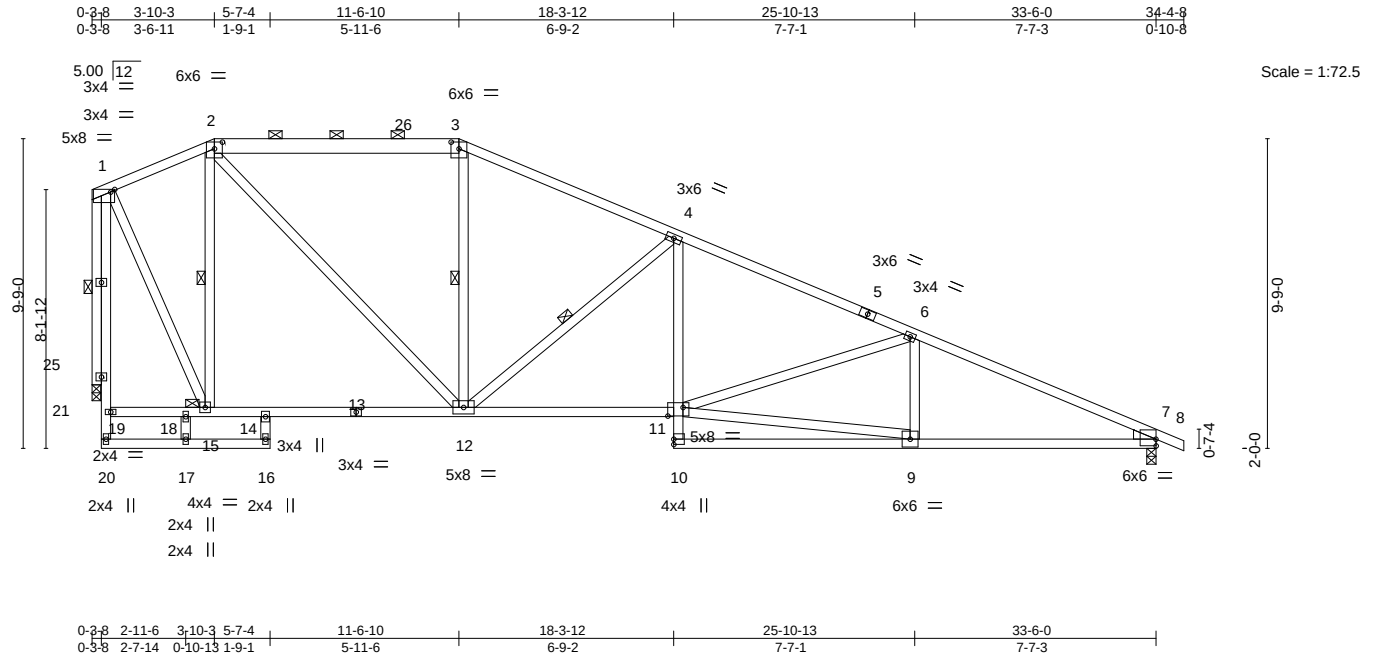


Plate Offsets (X,Y)--		[1:0-1-8,0-1-0], [2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [7:0-0-1,0-0-0], [7:0-5-11,0-0-1], [7:Edge,0-2-8], [11:0-5-12,0-3-4]	
LOADING (psf)		SPACING-	2-0-0
TCLL	20.4	Plate Grip DOL	1.15
(Ground Snow=20.0)		Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0	Code	IRC2018/TPI2014
BCDL	10.0		
		CSI.	
		TC	0.67
		BC	0.91
		WB	0.57
		Matrix-AS	
		DEFL.	
		in (loc)	l/defl
		Vert(LL)	-0.18 9-10 >999 240
		Vert(CT)	-0.37 9-10 >999 180
		Horz(CT)	0.09 7 n/a n/a
		PLATES	GRIP
		MT20	197/144
		Weight: 186 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-9-2 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-12, 4-12, 2-15, 1-25
JOINTS 1 Brace at Jt(s): 18

REACTIONS.

(size) 7=0-3-8, 25=0-3-4
Max Horz 25=-192(LC 11)
Max Uplift 7=-57(LC 11), 25=-24(LC 6)
Max Grav 7=1445(LC 29), 25=1351(LC 29)

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

TOP CHORD 1-2=-628/43, 2-3=-1300/93, 3-4=-1538/78, 4-6=-2557/96, 6-7=-2809/109
BOT CHORD 18-19=0/265, 15-18=0/265, 14-15=0/614, 12-14=0/545, 11-12=0/2286, 4-11=0/564,
7-9=-37/2523
WEBS 2-12=-75/1110, 4-12=-1274/120, 9-11=-45/2342, 6-11=-280/97, 2-15=-842/69,
1-15=-27/1083, 1-25=-1353/24

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Bearing at joint(s) 25 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 25.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) 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.



June 2,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge	I41495602
2339007	E3	Piggyback Base	2	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:53 2020 Page 1

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Job Reference (optional)

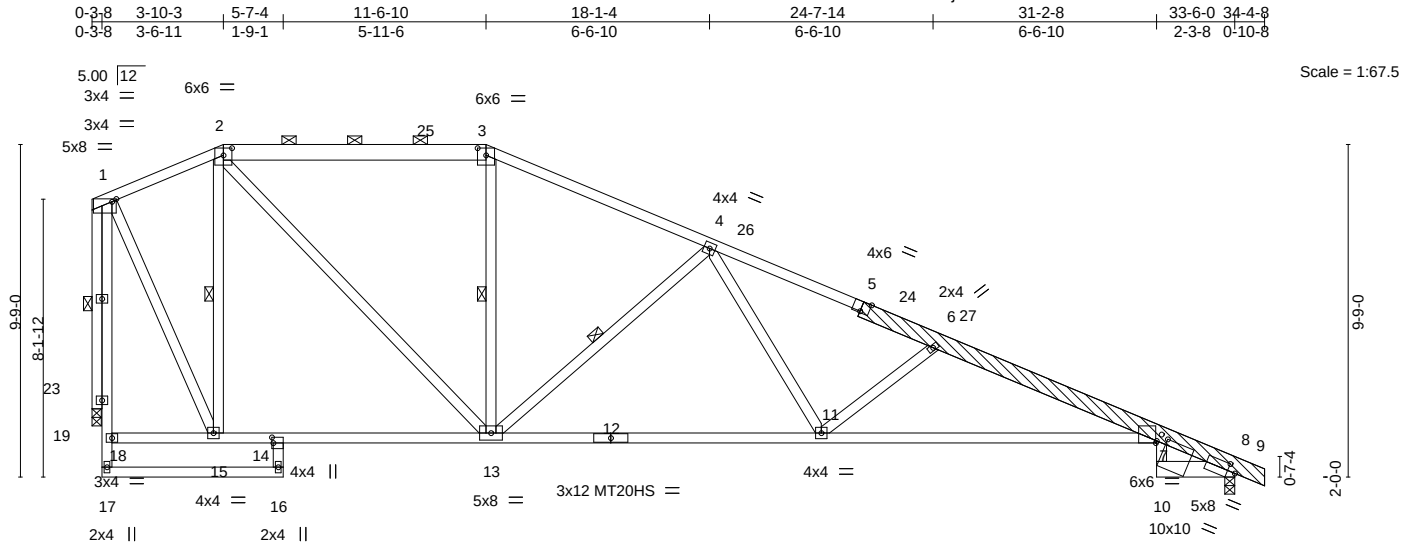


Plate Offsets (X, Y)--	0-3-8	3-10-3	5-7-4	11-6-10	21-4-9	31-2-8	33-6-0
	0-3-8	3-6-11	1-9-1	5-11-6	9-9-15	9-9-15	2-3-8
	[1:0-1-8,0-1-0], [2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [5:0-3-0,Edge], [7:0-0-5,Edge], [7:0-1-14,0-0-0], [7:0-2-11,0-0-12], [7:0-3-5,0-1-6], [8:0-2-12,0-2-8], [10:0-1-10,0-0-11], [14:0-2-0,0-0-8]						

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.75	Vert(LL)	-0.39	7-11	>999	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.87	Vert(CT)	-0.87	7-11	>460	MT20HS	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.42	Horz(CT)	0.26	8	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 202 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2, 5-9: 2x6 SPF 2100F 1.8E	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-9-6 max.): 2-3.
BOT CHORD 2x4 SPF No.2 *Except* 8-10: 2x6 SPF No.2, 7-12: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 3-13, 4-13, 2-15, 1-23
OTHERS 2x4 SPF No.2	
LBR SCAB 5-9 2x6 SPF 2100F 1.8E one side	

REACTIONS.	(size)
8=0-3-8, 23=0-3-4	
Max Horz 23=-194(LC 11)	
Max Uplift 8=-58(LC 11), 23=-24(LC 6)	
Max Grav 8=1445(LC 29), 23=1351(LC 29)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-623/47, 2-3=-1305/91, 3-4=-1525/76, 4-6=-3055/108, 6-7=-3686/145, 7-8=-821/49
BOT CHORD	15-18=0/257, 14-15=0/592, 13-14=0/540, 11-13=0/2193, 7-11=-61/3521, 7-10=-11/570
WEBS	4-13=-1187/127, 4-11=-9/997, 6-11=-1067/147, 2-15=-851/62, 1-15=-32/1072, 2-13=-67/1123, 1-23=-1353/24

- NOTES-**
- Attached 12-11-0 scab 5 to 9, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-0 from end at joint 5, nail 2 row(s) at 7" o.c. for 3-6-4; starting at 8-6-10 from end at joint 5, nail 2 row(s) at 4" o.c. for 4-3-14.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - 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.
 - Bearing at joint(s) 23 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) 8, 23.
 - This truss 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 sheathing be applied directly to the bottom chord.



June 2,2020

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MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge	I41495602
2339007	E3	Piggyback Base	2	1	Job Reference (optional)	

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


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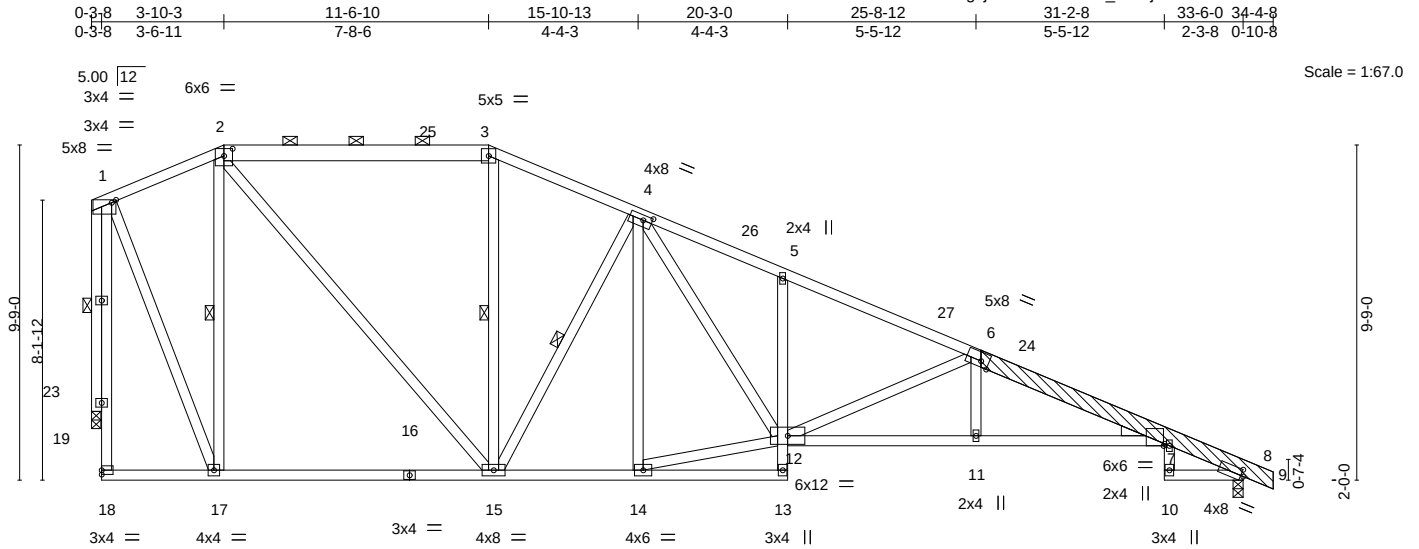
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2339007	Truss E4	Truss Type Piggyback Base	Qty 2	Ply 1	Summit/5 Hawthorn Rldge Job Reference (optional)	I41495603
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:55 2020 Page 1

ID:xKFGJ7evN77xhJE66FFHnCzvA57-gvjNv35aKf5c1zoe_CSCjkYzn9rZrK5sKDrRCSzAN2Y



		0-3-8		3-10-3		11-6-10		15-10-13		20-3-0		25-8-12		31-2-8		33-6-0					
		0-3-8		3-6-11		7-8-6		4-4-3		4-4-3		5-5-12		5-5-12		2-3-8					
Plate Offsets (X,Y)-- [1:0-1-8,0-1-0], [2:0-3-0,0-2-9], [4:0-3-2,0-1-12], [6:0-2-12,Edge], [7:0-0-5,Edge], [8:0-0-15,0-2-3]																					
LOADING (psf)		SPACING-				2-0-0		CSI.		DEFL.				in (loc)		l/defl L/d		PLATES		GRIP	
TCLL 20.4		Plate Grip DOL				1.15		TC 0.69		Vert(LL)				-0.32 7-11		>999 240		MT20		197/144	
(Ground Snow=20.0)		Lumber DOL				1.15		BC 0.95		Vert(CT)				-0.62 7-11		>641 180					
TCDL 10.0		Rep Stress Incr				YES		WB 0.81		Horz(CT)				0.28 8		n/a n/a					
BCLL 0.0		Code IRC2018/TPI2014						Matrix-AS													
BCDL 10.0																				Weight: 216 lb FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
2-3: 2x6 SPF No.2, 6-9: 2x6 SPF 2100F 1.8E
BOT CHORD 2x4 SPF No.2 *Except*
7-12,13-16: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x4 SPF No.2
LBR SCAB 6-9 2x6 SPF 2100F 1.8E one side
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-17, 3-15, 4-15, 1-23

REACTIONS.

(size) 8=0-3-8, 23=0-3-4
Max Horz 23=-194(LC 11)
Max Uplift 8=-58(LC 11), 23=-24(LC 6)
Max Grav 8=1445(LC 29), 23=1351(LC 29)

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

TOP CHORD 1-2=-557/77, 2-3=-1152/106, 3-4=-1325/100, 4-5=-2722/150, 5-6=-2773/98,
6-7=-3779/118, 7-8=-645/43
BOT CHORD 15-17=0/483, 14-15=0/1624, 5-12=-380/87, 11-12=-40/3612, 7-11=-43/3605
WEBS 1-17=-25/1084, 2-17=-884/42, 2-15=-58/1046, 4-15=-972/110, 4-14=-297/3,
12-14=0/1524, 4-12=-72/1546, 6-12=-1231/91, 1-23=-1353/24

NOTES-

- Attached 9-4-13 scab 6 to 9, front face(s) 2x6 SPF 2100F 1.8E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-7 from end at joint 6, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-11-4 from end at joint 6, nail 2 row(s) at 4" o.c. for 4-3-14.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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) 23 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) 8, 23.
- This truss 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



June 2,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge	I41495603
2339007	E4	Piggyback Base	2	1	Job Reference (optional)	

- 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. 10/03/2015 BEFORE USE.**

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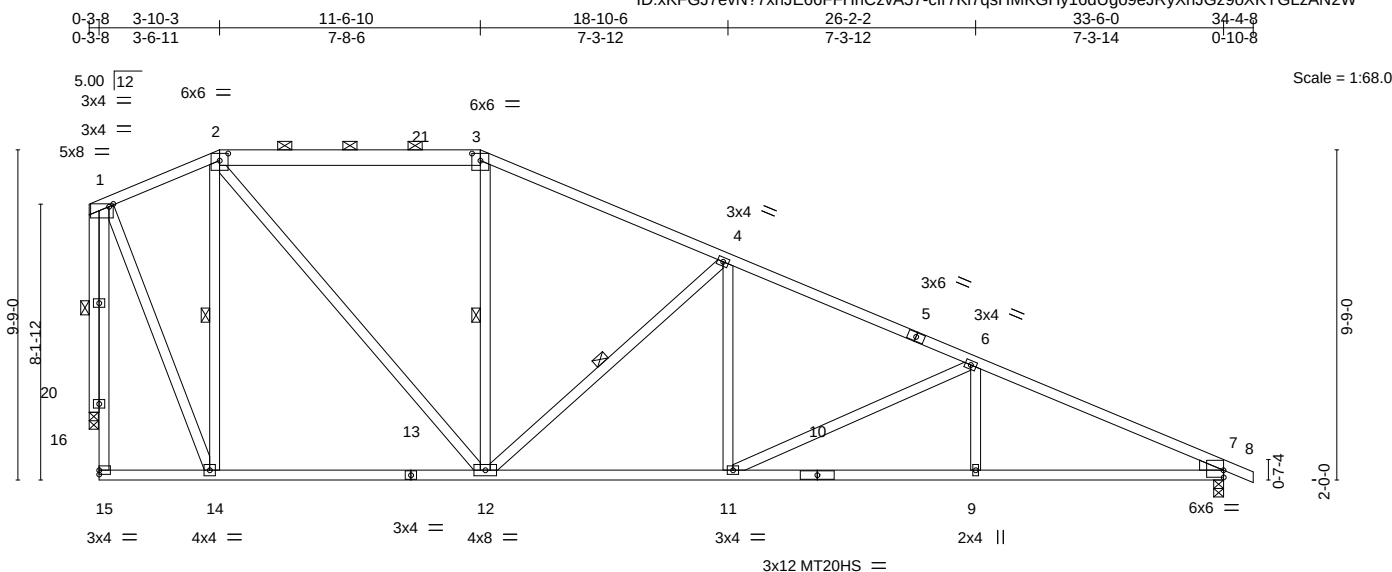
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Ridge	I41495604
2339007	E5	Piggyback Base	1	1		
Job Reference (optional)						

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:57 2020 Page 1

ID: xKFGJ7evN?7xhJE66FFHnCzvA57-clr7KI7qsHMKGHy16dUgo9eJRyXhJGz9oXKYGLZAN2W



0-3-8	3-10-3	11-6-10	18-10-6	26-2-2	33-6-0
0-3-8	3-6-11	7-8-6	7-3-12	7-3-12	7-3-14

Plate Offsets (X,Y)-- [1:0-1-8,0-1-0], [2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [7:0-0-1,0-0-0], [7:0-5-11,0-0-1], [7:Edge,0-2-8]

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.68	in (loc) l/defl L/d	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.91	Vert(LL) -0.18 9-11 >999 240	MT20HS	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.66	Vert(CT) -0.36 9-11 >999 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.12 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 175 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-14, 3-12, 4-12, 1-20

REACTIONS.

(size) 7=0-3-8, 20=0-3-4
Max Horz 20=-192(LC 11)
Max Uplift 7=-57(LC 11), 20=-24(LC 6)
Max Grav 7=1445(LC 29), 20=1351(LC 29)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-557/77, 2-3=-1165/108, 3-4=-1395/93, 4-6=-2248/103, 6-7=-2813/110
BOT CHORD 12-14=0/481, 11-12=0/1996, 9-11=-39/2527, 7-9=-39/2527
WEBS 1-14=-25/1077, 2-14=-881/42, 2-12=-63/1071, 4-12=-1112/119, 4-11=0/486, 6-11=-584/92, 6-9=0/260, 1-20=-1353/24

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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.
- Bearing at joint(s) 20 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 20.
- This truss 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.



June 2,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss E6	Truss Type Piggyback Base	Qty 4	Ply 1	Summit/5 Hawthorn Rldge I41495605
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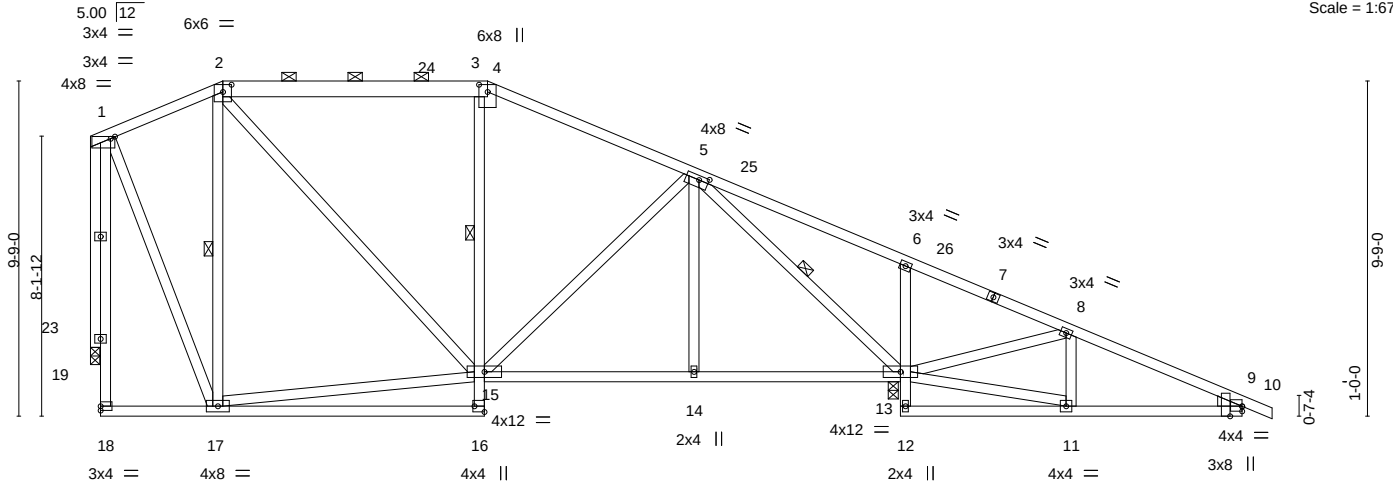
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:59 2020 Page 1

ID: xKFGJ7evN?77xhJE66FFHnCzvA57-YhztIR84Ouc2Wa6PD2W8uajf7mM5nA3SFrfLEZAN2U

0-3-8 3-10-3 11-6-10 17-6-11 23-6-12 28-6-5 33-6-0 34-4-8
0-3-8 3-6-11 7-8-6 6-0-1 6-0-1 4-11-9 4-11-11 0-10-8

Scale = 1:67.0



0-3-8 3-10-3 11-5-8 17-6-11 23-6-0 23-6-12 28-6-5 33-6-0 0-3-8 3-6-11 7-7-5 6-1-3 5-11-5 0-0-12 4-11-9 4-11-11															
Plate Offsets (X,Y)-- [1:0-1-8,0-0-12], [2:0-3-0,0-2-9], [3:0-0-0,0-1-12], [4:0-1-14,0-0-0], [4:0-2-9,0-3-0], [5:0-3-6,0-1-8], [9:0-0-0,0-1-12], [9:0-3-7,Edge], [16:Edge,0-3-8]															
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES		GRIP	
TCLL 20.4		Plate Grip DOL		1.15		TC 0.67		Vert(LL)		-0.09 16-17 >999 240		MT20		197/144	
(Ground Snow=20.0)		Lumber DOL		1.15		BC 0.34		Vert(CT)		-0.18 16-17 >999 180					
TCDL 10.0		Rep Stress Incr		YES		WB 0.68		Horz(CT)		0.12 13 n/a n/a					
BCLL 0.0		Code IRC2018/TPI2014				Matrix-AS						Weight: 195 lb		FT = 20%	
BCDL 10.0															

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 3-15
WEBS 1 Row at midpt 2-17, 5-13

REACTIONS.

(size) 13=0-3-8, 23=0-3-4
Max Horz 23=-192(LC 11)
Max Uplift 13=-191(LC 7), 23=-32(LC 6)
Max Grav 13=2046(LC 29), 23=752(LC 15)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-306/72, 2-3=-492/78, 3-4=-462/73, 4-5=-612/71, 5-6=-248/1260, 6-8=-289/1242, 8-9=-108/481
BOT CHORD 3-15=-250/80, 14-15=0/398, 13-14=0/398, 6-13=-426/96, 9-11=-390/121
WEBS 1-17=-32/667, 2-17=-526/34, 15-17=0/274, 2-15=-13/330, 5-15=-63/283, 5-14=0/264, 11-13=-342/132, 8-13=-741/212, 8-11=-86/286, 5-13=-2007/162, 1-23=-753/32

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Bearing at joint(s) 23 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 23 except (jt=lb) 13=191.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) 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.



June 2,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss E7	Truss Type Piggyback Base	Qty 4	Ply 1	Summit/5 Hawthorn Rldge I41495606
Job Reference (optional)					

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

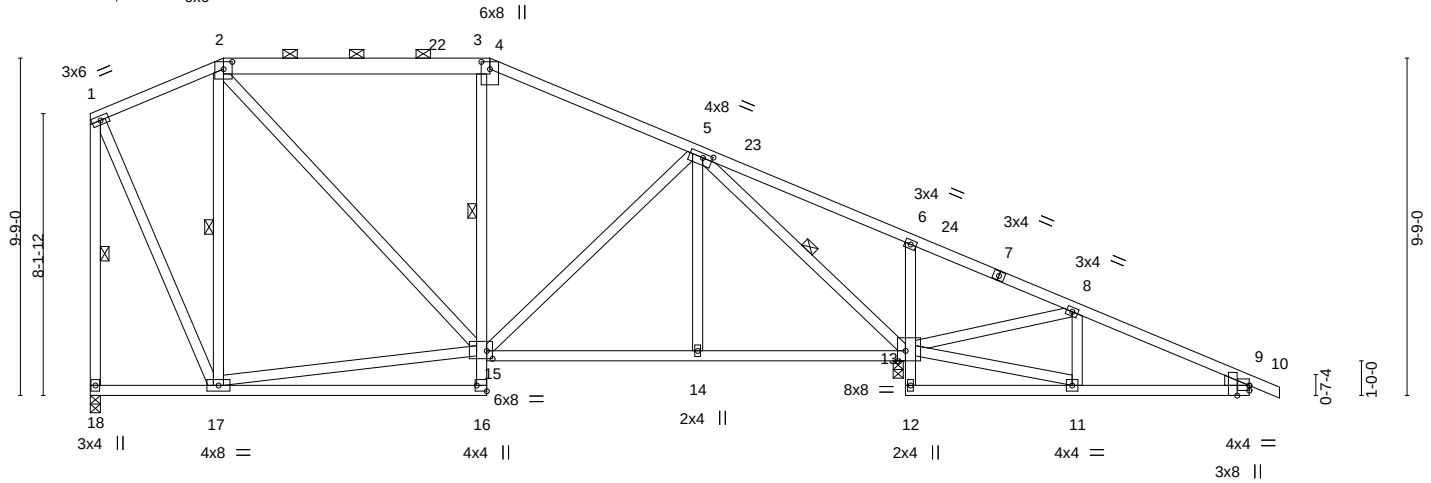
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:01 2020 Page 1

ID: xKFGJ7evN?77xhJE66FFHnCzvA57-U35eA7ALvVsmLuFoLTZcz?o_da1ZF4YIj9ImP6zAN2S

3-10-3	11-6-10	17-6-11	23-6-12	28-6-5	33-6-0	34-4-8
3-10-3	7-8-6	6-0-1	6-0-1	4-11-9	4-11-11	0-10-8

5.00 $\sqrt{12}$ 6x6 =

Scale = 1:66.6



3-10-3	11-5-8	17-6-11	23-6-0	23-6-12	28-6-5	33-6-0
3-10-3	7-7-5	6-1-3	5-11-5	0-0-12	4-11-9	4-11-11

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.67	Vert(LL)	-0.09 16-17	>999	240	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.34	Vert(CT)	-0.18 16-17	>999	180		
TCDL 10.0	Lumber DOL 1.15	WB 0.68	Horz(CT)	0.01 13	n/a	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 188 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.
BOT CHORD Rigid ceiling directly applied. Except:
1 Row at midpt 3-15
WEBS 1 Row at midpt 2-17, 5-13, 1-18

REACTIONS.

(size) 18=0-3-8, 13=0-3-8
Max Horz 18=-241(LC 8)
Max Uplift 18=-58(LC 6), 13=-202(LC 7)
Max Grav 18=782(LC 29), 13=2045(LC 29)

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

TOP CHORD 1-2=-311/76, 2-3=-492/65, 3-4=-462/68, 4-5=-611/51, 5-6=-245/1260, 6-8=-286/1242, 8-9=-108/481, 1-18=-767/50
BOT CHORD 3-15=-251/73, 14-15=0/381, 13-14=0/381, 6-13=-426/97, 9-11=-390/121
WEBS 2-17=-521/111, 15-17=0/287, 2-15=-39/328, 5-15=-69/285, 5-14=0/264, 5-13=-2007/177, 11-13=-342/125, 8-13=-741/209, 8-11=-85/286, 1-17=-63/681

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 18 except (jt=lb) 13=202.
- 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.



June 2,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Ridge	I41495607
2339007	E8	Piggyback Base	5	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:02 2020 Page 1

ID: xKFGJ7evN?7xhJE66FFhCzvA57-zGe0NSBzgp_dN2q_vA4rVCLBGzEO_ZZuxp1JxYZAN2R

Job Reference (optional)

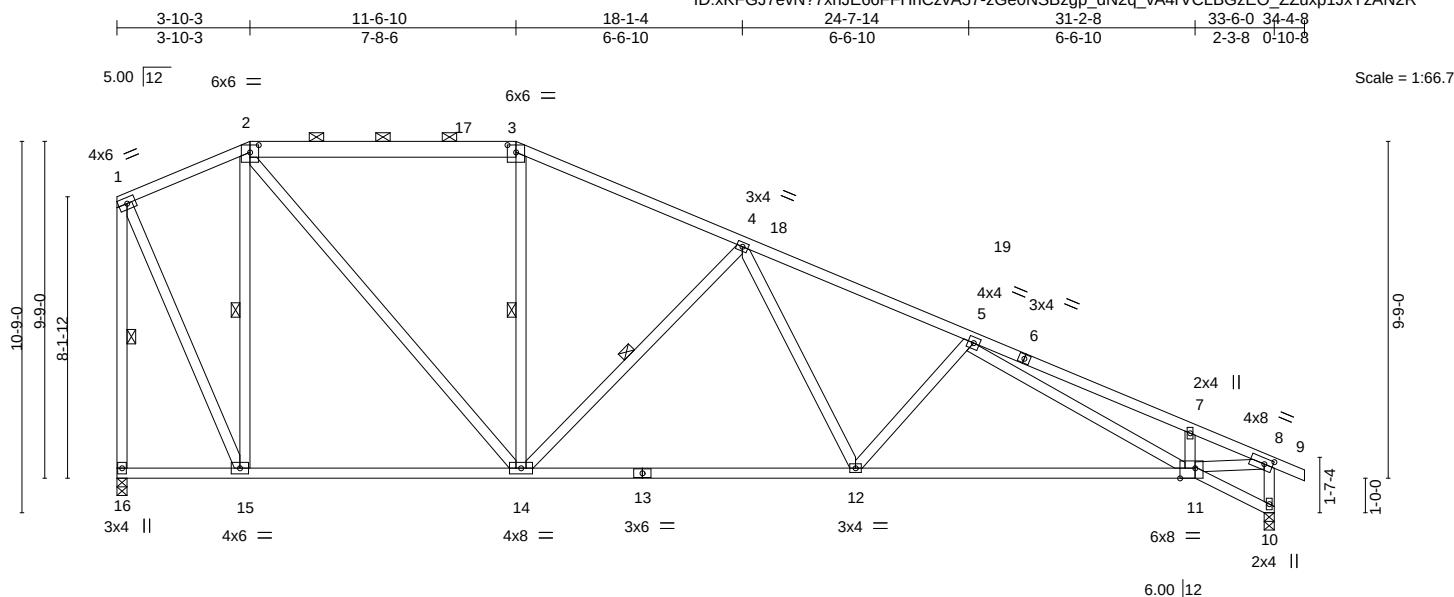


Plate Offsets (X, Y)--	[2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [8:0-2-15,0-2-0], [11:0-5-4,Edge]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.55	in (loc) l/defl L/d	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.94	Vert(LL) -0.23 11-12 >999 240		
TCDL 10.0	Lumber DOL 1.15	WB 0.57	Vert(CT) -0.52 11-12 >762 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.13 10 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 175 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 2-15, 3-14, 4-14, 1-16

REACTIONS.

(size) 10=0-3-8, 16=0-3-8
Max Horz 16=-260(LC 6)
Max Uplift 10=-60(LC 11), 16=-42(LC 6)
Max Grav 10=1448(LC 29), 16=1376(LC 29)

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

TOP CHORD 1-2=-559/90, 2-3=-1157/110, 3-4=-1372/98, 4-5=-2402/118, 5-7=-2551/156,
7-8=-2512/81, 8-10=-1454/49, 1-16=-1354/38
BOT CHORD 14-15=0/478, 12-14=0/1862, 11-12=-48/2404
WEBS 2-15=-895/114, 2-14=-57/1062, 4-14=-1019/127, 4-12=-6/606, 5-12=-430/121,
8-11=-60/2322, 1-15=-51/1115

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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) 10 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) 10, 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.



June 2,2020

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge	I41495608
2339007	E9	GABLE	1	1		

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:06 2020 Page 1
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33-2-8
34-1-0
21-11-6
0-10-8

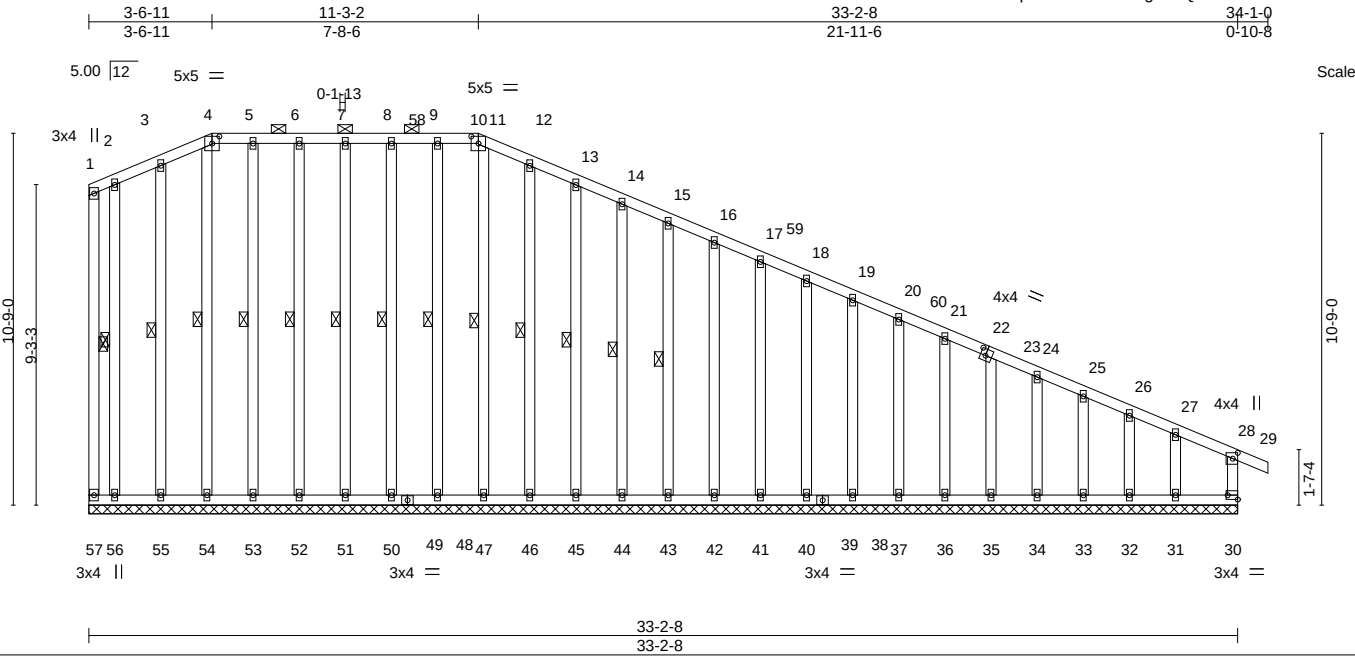


Plate Offsets (X,Y)--	[4:0-2-8,0-2-7], [10:0-0-0,0-1-12], [10:0-2-8,0-2-7], [11:0-1-12,0-0-12], [22:0-1-12,0-2-4], [22:0-0-0,0-1-12], [23:0-1-14,0-0-0], [28:0-2-0,0-1-12], [30:Edge 0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.28	Vert(LL)	-0.00	28	n/r	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	0.00	28	n/r		
TCDL 10.0	Lumber DOL 1.15	WB 0.12	Horz(CT)	0.01	30	n/a		
BCLL 0.0	Rep Stress Incr YES	Matrix-R						
BCDL 10.0	Code IRC2018/TPI2014						Weight: 291 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-10.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 33-2-8.

(lb) - Max Horz 57=-274(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 57, 30, 47, 48, 50, 51, 52, 54, 55, 56, 46, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33 except 31=-293(LC 6)

Max Grav All reactions 250 lb or less at joint(s) 57, 47, 48, 50, 51, 52, 53, 54, 55, 56, 46, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31 except 30=297(LC 6)

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

TOP CHORD 27-28=-252/40

- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0; IBC 1607.11.2 minimum roof live load applied where required.; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 16.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 57, 30, 47, 48, 50, 51, 52, 54, 55, 56, 46, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33 except (jt=lb) 31=293.
 - This truss 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.



June 2,2020

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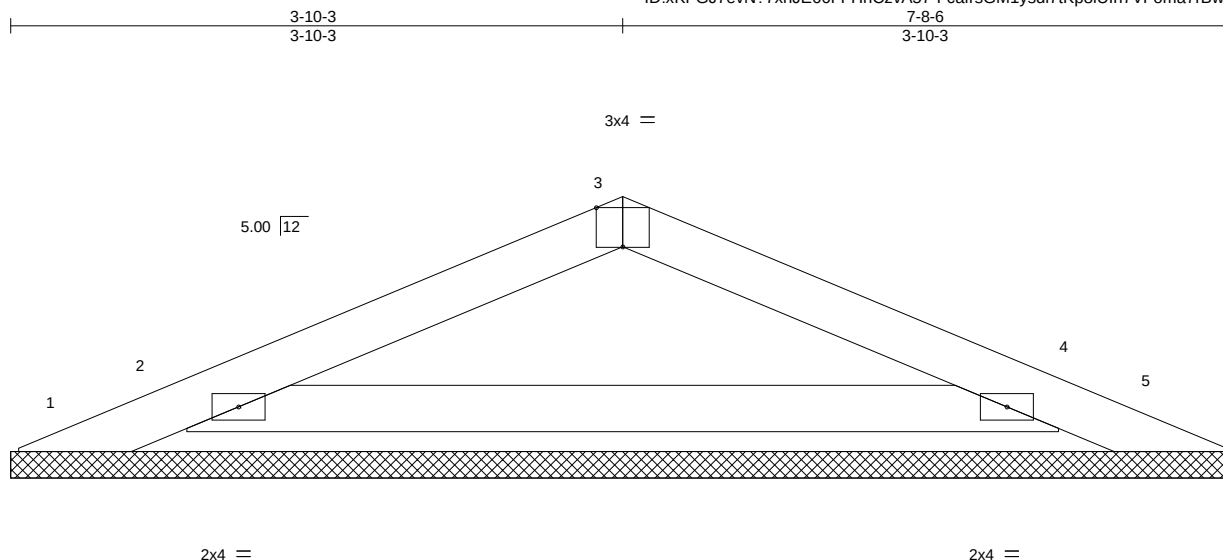
MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Rldge
2339007	G1	FLAT GIRDER	1	2	I41495609
Job Reference (optional)					

- NOTES-**
- 5) Provide adequate drainage to prevent water ponding.
 - 6) All plates are MT20 plates unless otherwise indicated.
 - 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 25=108, 13=143.
 - 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 25 lb down and 13 lb up at 0-1-12, 1291 lb down and 29 lb up at 2-0-12, 1291 lb down and 29 lb up at 4-0-12, 1291 lb down and 29 lb up at 6-0-12, 1291 lb down and 29 lb up at 8-0-12, 1291 lb down and 29 lb up at 10-0-12, 1291 lb down and 29 lb up at 12-0-12, 692 lb down and 37 lb up at 14-0-12, 692 lb down and 37 lb up at 16-0-12, and 692 lb down and 37 lb up at 18-0-12, and 719 lb down and 35 lb up at 20-1-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.

- LOAD CASE(S)** Standard
- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-12=-61, 13-25=-20
 - Concentrated Loads (lb)
 - Vert: 1=-7 12=-719 2=-1290 3=-1290 4=-1290 5=-1290 6=-1290 7=-1290 8=-691 10=-691 11=-691

[illegible]

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 7-8-6.
(lb) - Max Horz 1=13(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 2=352(LC 15), 4=352(LC 16)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



June 2, 2020

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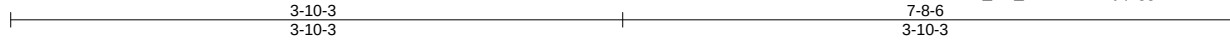
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Ridge	I41495611
2339007	PB2	GABLE	2	1	Job Reference (optional)	

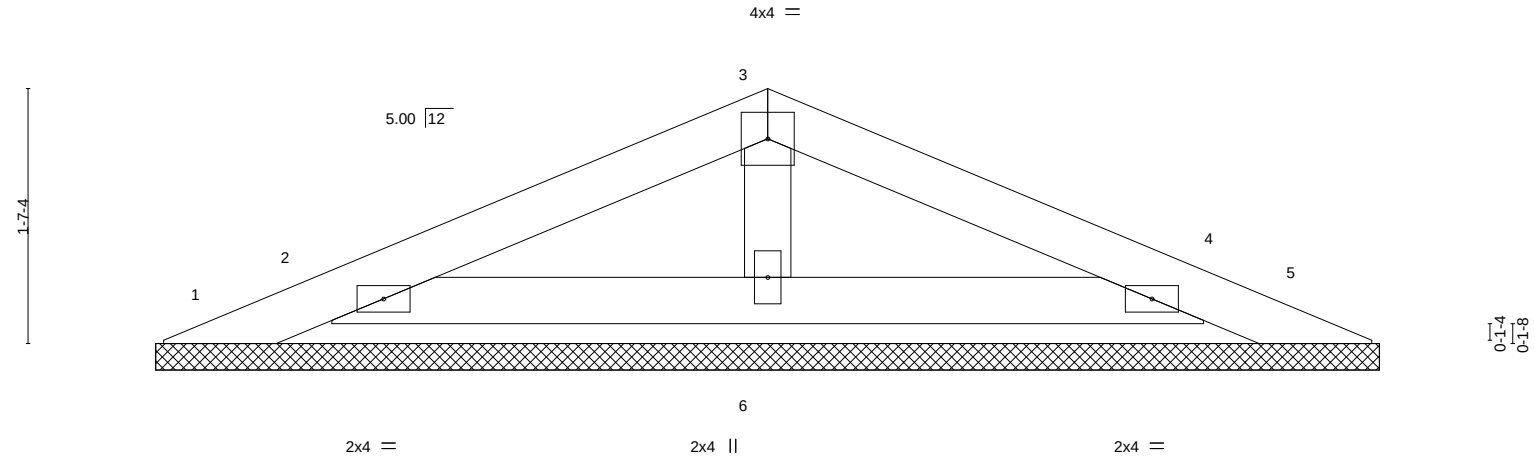
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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Scale = 1:14.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	16.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	MT20		197/144	
(Ground Snow=20.0)		Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a				
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-P							
BCDL	10.0										

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 7-8-6.
(lb) - Max Horz 1=-13(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 6 except 2=259(LC 15), 4=259(LC 16)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



June 2,2020

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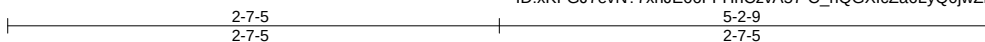


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss PB3	Truss Type GABLE	Qty 10	Ply 1	Summit/5 Hawthorn Ridge I41495612
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					
Job Reference (optional)					

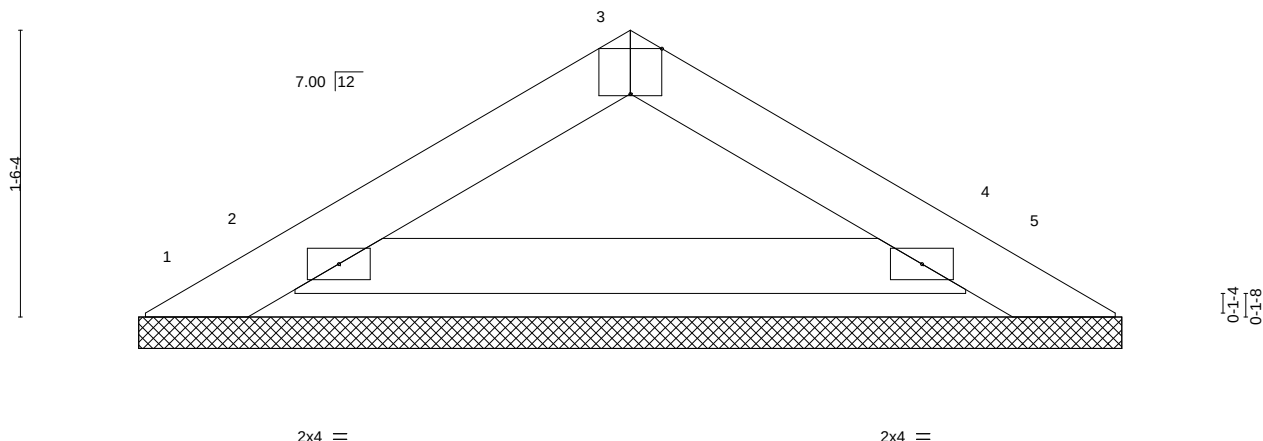
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3x4 =

Scale = 1:12.2



2x4 =

2x4 =

5-2-9
5-2-9

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

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	Plate Grip DOL	1.15	TC 0.05	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 11 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 5-2-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 5-2-9.
(lb) - Max Horz 1=25(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 2, 4
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 2, 4

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 2, 4.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



June 2,2020

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Chesterfield, MO 63017

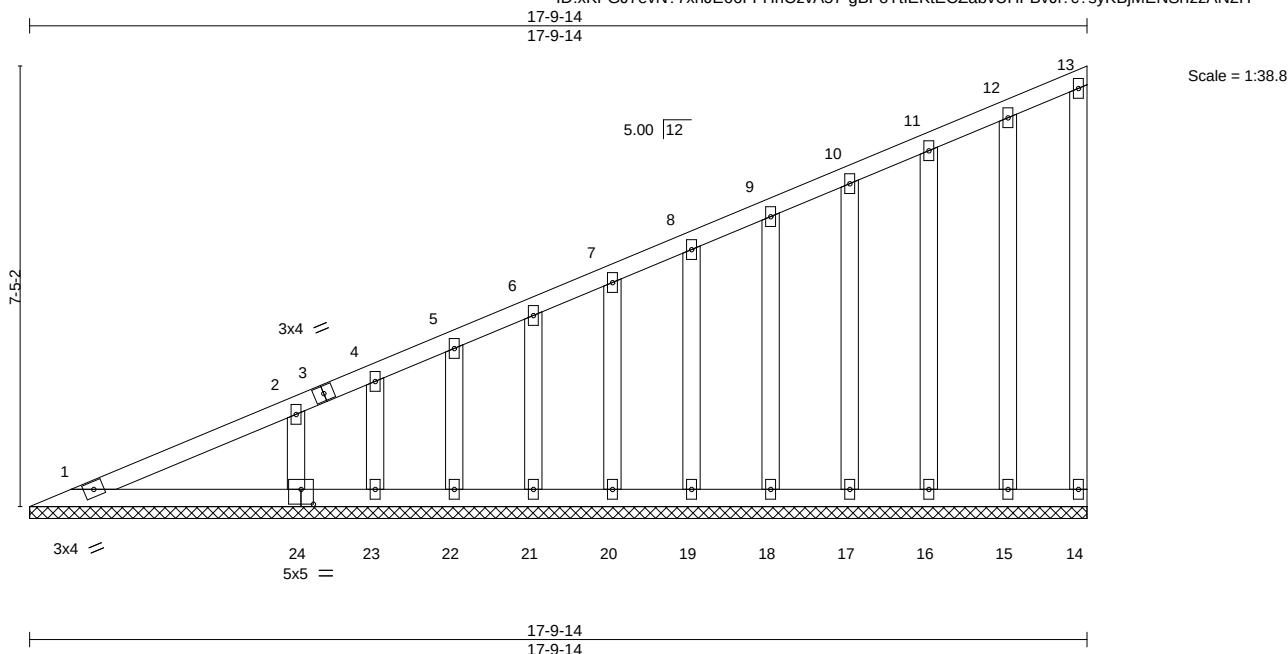


Plate Offsets (X,Y)-- [24:0-2-8,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	16.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	n/a - n/a	999	MT20 197/144
(Ground Snow=20.0)		Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a - n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	-0.00 14	n/a	
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S					
BCDL	10.0								
								Weight: 93 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SPF No.2		

REACTIONS. All bearings 17-9-14.
(lb) - Max Horz 1=213(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
Max Grav All reactions 250 lb or less at joint(s) 14, 1, 15, 16, 17, 18, 19, 20, 21, 22 except 24=290(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) TCLL: ASCE 7-16; Pg= 20.0 psf, Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 4) Unbalanced snow loads have been considered for this design.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 2, 2020



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 BCS1 Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

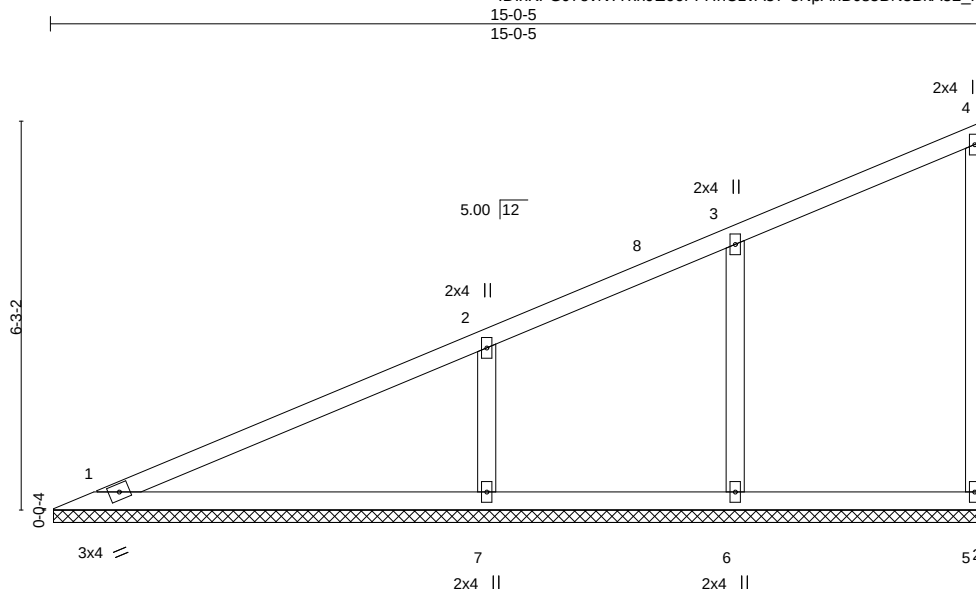


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss V2	Truss Type Valley	Qty 1	Ply 1	Summit/5 Hawthorn Ridge I41495614
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

ID: xKFGJ7evN?7xhJE66FFHnCzVA57-8NpAhDJs5BN3Bka52_mQsXI7DP8T3emWT1COqQzAN2G

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:13 2020 Page 1



Scale = 1:37.1

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	2-0-0	TC 0.37	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.27	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.09	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 48 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-11-11.
(lb) - Max Horz 1=177(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=335(LC 14), 7=459(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-273/57, 2-7=-321/108

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 3) Unbalanced snow loads have been considered for this design.
- 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) 5, 6, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 2, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



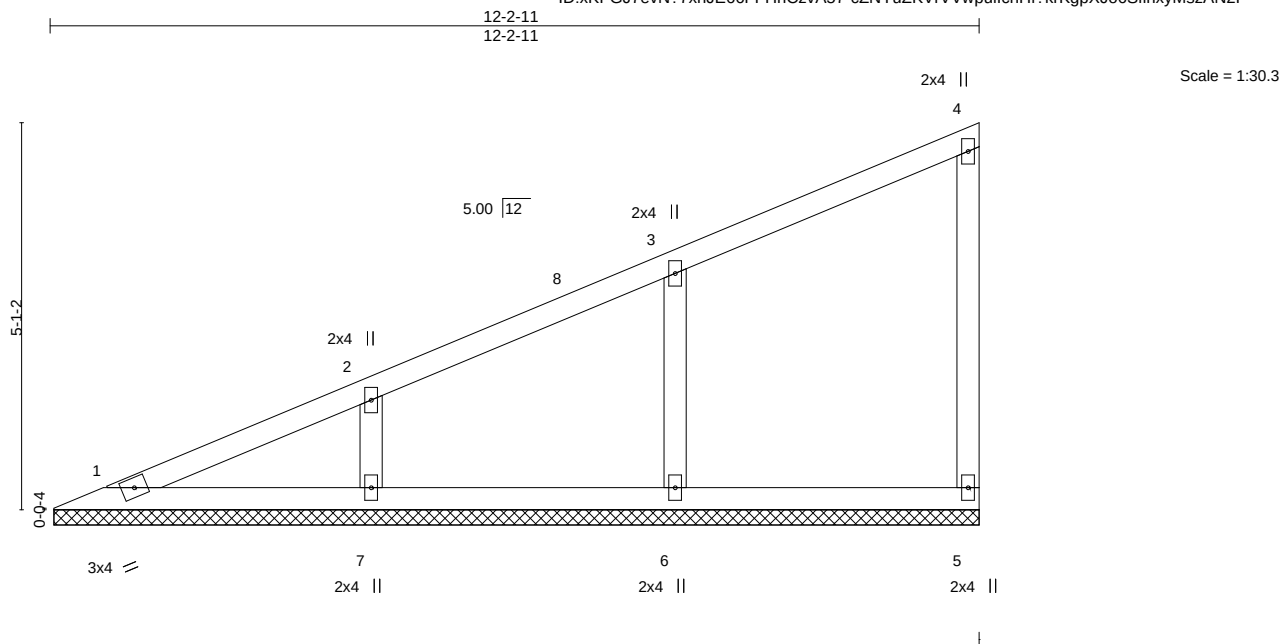
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss V3	Truss Type Valley	Qty 1	Ply 1	Summit/5 Hawthorn Ridge Job Reference (optional)	I41495615
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:14 2020 Page 1

ID: xKFGJ7evN?7xhJE66FFHnCzvA57-cZNYuZKvVwVpullchHf?krKgpXJo6SfhxyMsZAN2F



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.06	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 38 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 12-2-1.
(lb) - Max Horz 1=142(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=397(LC 14), 7=295(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-314/73

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 3) Unbalanced snow loads have been considered for this design.
- 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) 5, 6, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 2, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



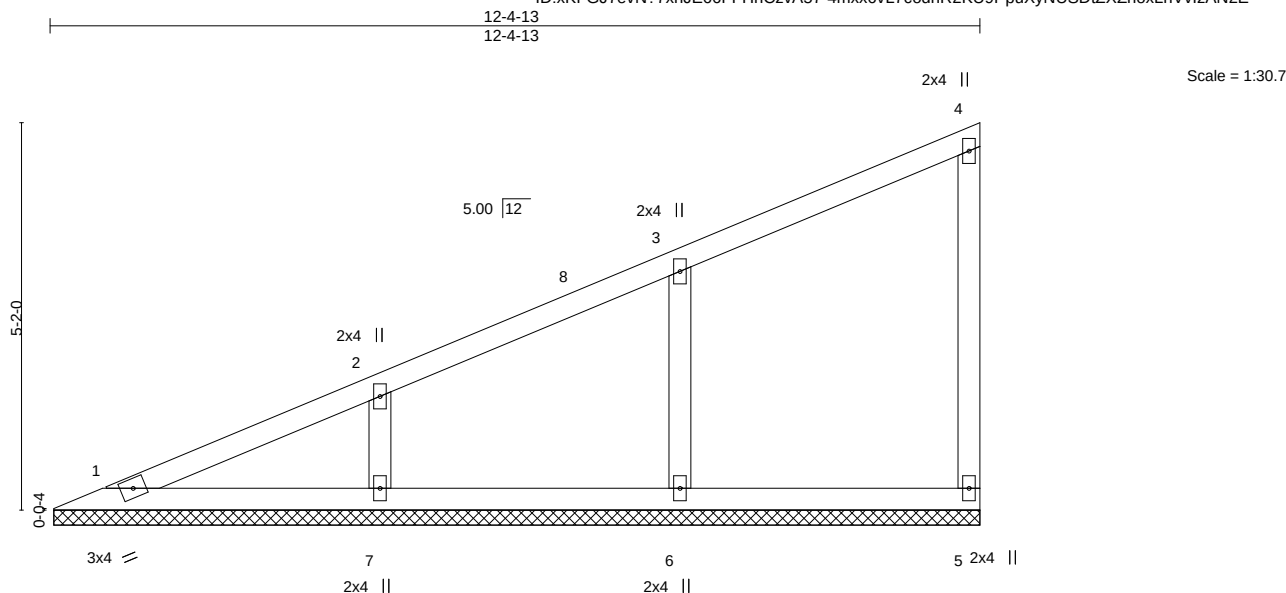
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2339007	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/5 Hawthorn Ridge Job Reference (optional)	I41495616
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:15 2020 Page 1

ID:xKFGJ7evN?77xhJE66FFHnCzvA57-4mxx6vL7codnR2KU9PpuXyNUSDtZXZxoxLhVvIzAN2E



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	2-0-0	TC 0.20	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Lumber DOL 1.15	WB 0.06	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 39 lb	FT = 20%
	Code IRC2018/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS.

- All bearings 12-4-3.
(lb) - Max Horz 1=145(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=395(LC 14), 7=304(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-313/72

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- Unbalanced snow loads have been considered for this design.
- 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) 5, 6, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 2, 2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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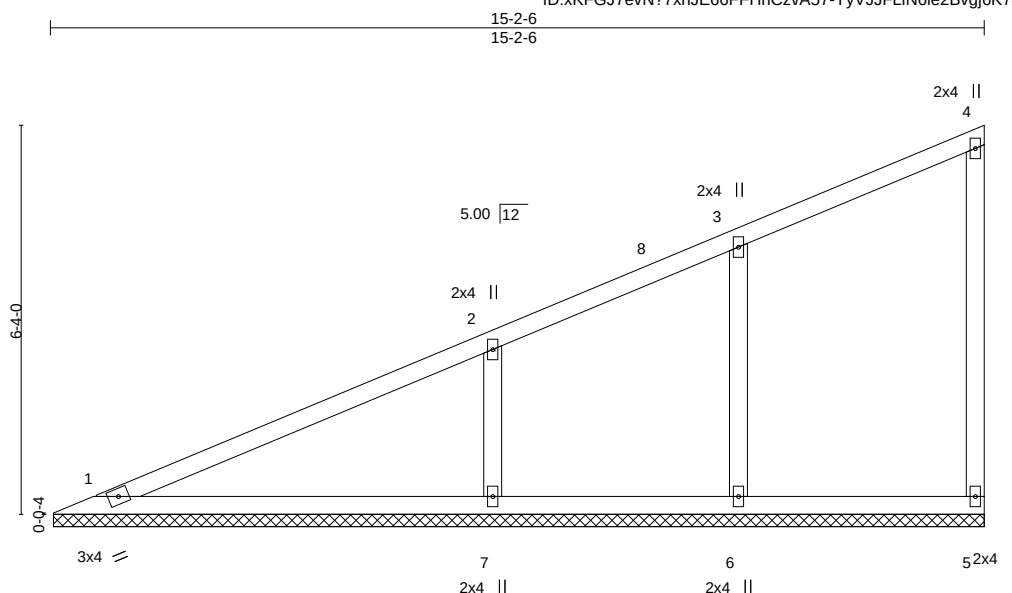
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/5 Hawthorn Ridge
2339007	V5	Valley	1	1	I41495617
Job Reference (optional)					

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:16 2020 Page 1

ID:xKFGJ7evN?7xhJE66FFHnCzvA57-YyVJJFLIN6le2Bvgj6K749wc7dAwG?Uy9?Q2RkzAN2D



Scale = 1:37.5

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	2-0-0	TC 0.39	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.28	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr YES	WB 0.09	Horz(CT)	-0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S					Weight: 49 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 15-1-13.
(lb) - Max Horz 1=180(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 5, 6, 7
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=330(LC 14), 7=471(LC 1)

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

WEBS 3-6=-269/56, 2-7=-329/111

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=16.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10; IBC 1607.11.2 minimum roof live load applied where required.
- 3) Unbalanced snow loads have been considered for this design.
- 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) 5, 6, 7.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 2,2020

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

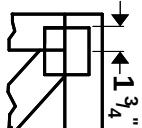
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



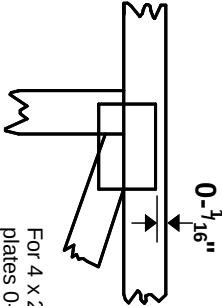
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

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

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

PLATE SIZE

4 X 4

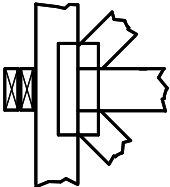
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



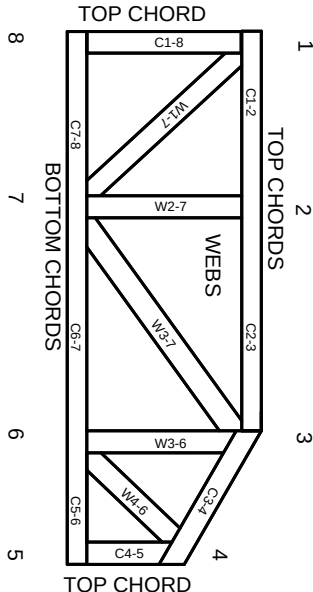
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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