



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

06/09/2020

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	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020	Ply 1	Summit/5 Hawthorn Rldge I41495590
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 1-0-0			10-0-0 10-0-0		
20-0-0 10-0-0			21-0-0 1-0-0		
			4x4 =		
			Scale = 1:41.4		

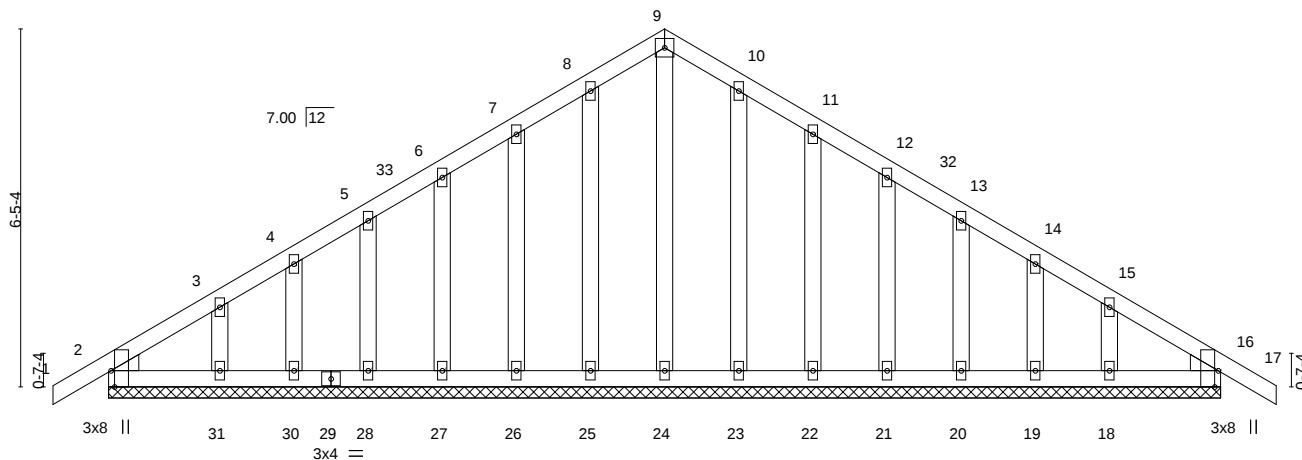


Plate Offsets (X,Y)--		[2:0-0-2,0-0-4], [2:0-0-5,0-4-8], [2:0-3-8,Edge], [16:0-0-2,0-0-4], [16:0-0-5,0-4-8], [16:0-3-8,Edge]	
LOADING (psf)		SPACING-	2-0-0
TCLL 16.0		Plate Grip DOL	1.15
(Ground Snow=20.0)		Lumber DOL	1.15
TCDL 10.0		Rep Stress Incr	YES
BCLL 0.0		Code IRC2018/TPI2014	
BCDL 10.0			
	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

- 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; IBC 1607.11.2 minimum roof live load applied where required.
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 30, 31, 23, 22, 21, 20, 19, 18.
- 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	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI		Ply 1	Summit/5 Hawthorn Rldge I41495591
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			ID: xKFGJ7evN77xhJE66FFHnCzvA57-4yMfPTj7d8B0pCwhgBOxzBmmkfJ94SrlCvqlczAN31 06/09/2020			
-1-0-0 1-0-0			5-0-4 5-0-4		10-0-0 4-11-12	
20-0-0 5-0-4			21-0-0 1-0-0		Scale = 1:41.5	

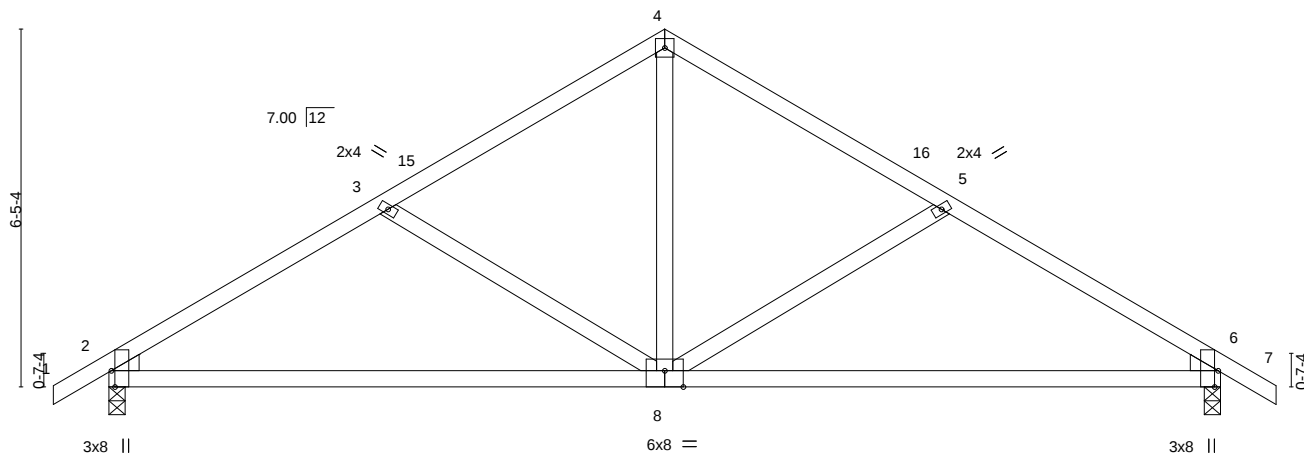


Plate Offsets (X,Y)--		[2:0-0-2,0-0-4], [2:0-0-5,0-4-8], [2:0-3-8,Edge], [6:0-3-8,Edge], [6:0-0-5,0-4-8], [6:0-0-2,0-0-4], [8:0-4-0,Edge]	
LOADING (psf)		SPACING-	2-0-0
TCLL 16.0		Plate Grip DOL	1.15
(Ground Snow=20.0)		Lumber DOL	1.15
TCDL 10.0		Rep Stress Incr	YES
BCLL 0.0		Code IRC2018/TPI2014	
BCDL 10.0			
		CSI.	
		TC 0.30	
		BC 0.71	
		WB 0.21	
		Matrix-AS	
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL) -0.13 8-11 >999	240
		Vert(CT) -0.27 8-11 >879	180
		Horz(CT) 0.02 6 n/a	n/a
		PLATES	GRIP
		MT20	197/144
		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-

- 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.
- 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.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 2,2020

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2339007	Truss B1	Truss Type Common Supported Gable	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020	Ply 1	Summit/5 Hawthorn Rldge I41495592
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 ID:xKFGJ7evN77xhJE66FFHnCzvA57-0KTPq9IO9ISk2W43ocQP2crA4TA6YP9bfDJPhezAN3?		
-0-10-8 0-10-8		6-6-0 6-6-0	13-0-0 6-6-0		13-10-8 0-10-8
			Scale = 1:27.2		

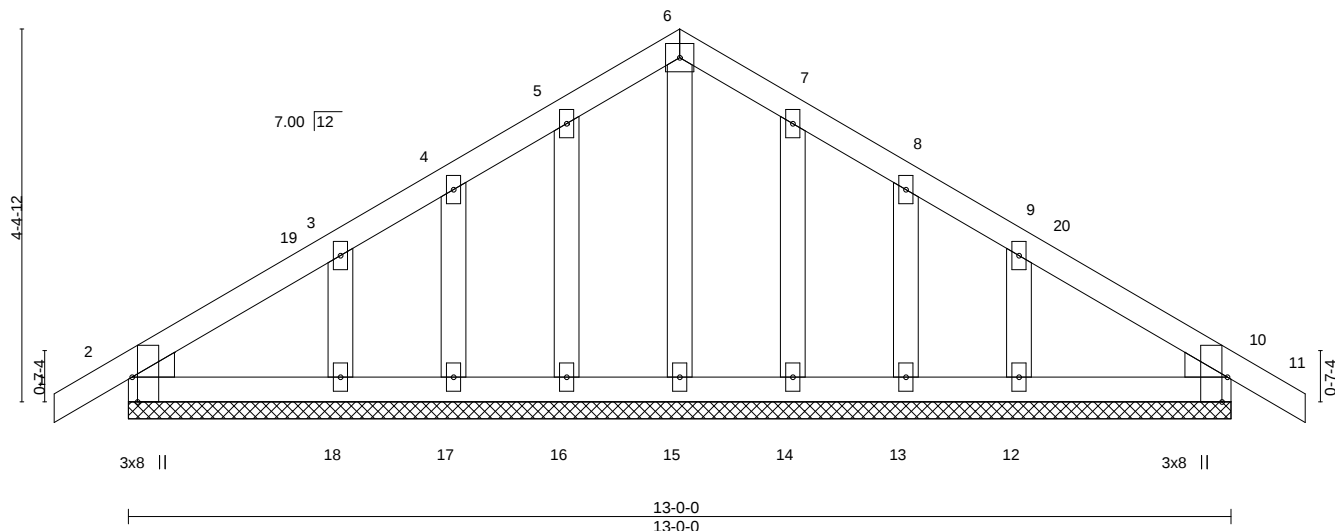


Plate Offsets (X,Y)--		[2:0-0-2,0-0-4], [2:0-0-5,0-4-8], [2:0-3-8,Edge], [10:0-0-2,0-0-4], [10:0-0-5,0-4-8], [10:0-3-8,Edge]	
LOADING (psf)		SPACING-	2-0-0
TCLL 16.0		Plate Grip DOL	1.15
(Ground Snow=20.0)		Lumber DOL	1.15
TCDL 10.0		Rep Stress Incr	YES
BCLL 0.0		Code IRC2018/TPI2014	
BCDL 10.0			
		CSI.	
		TC 0.05	
		BC 0.04	
		WB 0.03	
		Matrix-S	
		DEFL.	
		in (loc)	l/defl L/d
		Vert(LL) 0.00 10	n/r 120
		Vert(CT) 0.00 10	n/r 120
		Horz(CT) 0.00 10	n/a n/a
		PLATES	GRIP
		MT20	197/144
		Weight: 56 lb	FT = 20%

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

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-

- 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; IBC 1607.11.2 minimum roof live load applied where required.
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 17, 18, 14, 13, 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.



June 2,2020

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Job 2339007	Truss C1	Truss Type GABLE	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI		Summit/5 Hawthorn Rldge 141495593 Job Reference (optional)
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:29 2020 Page 1 ID:xKFGJ7evN7?xhJE66FFHnCzvA57-Qv9YSAnGSgqJvzpeTl_6gFTZeg3ElcL1MBY3HzzAN2y		

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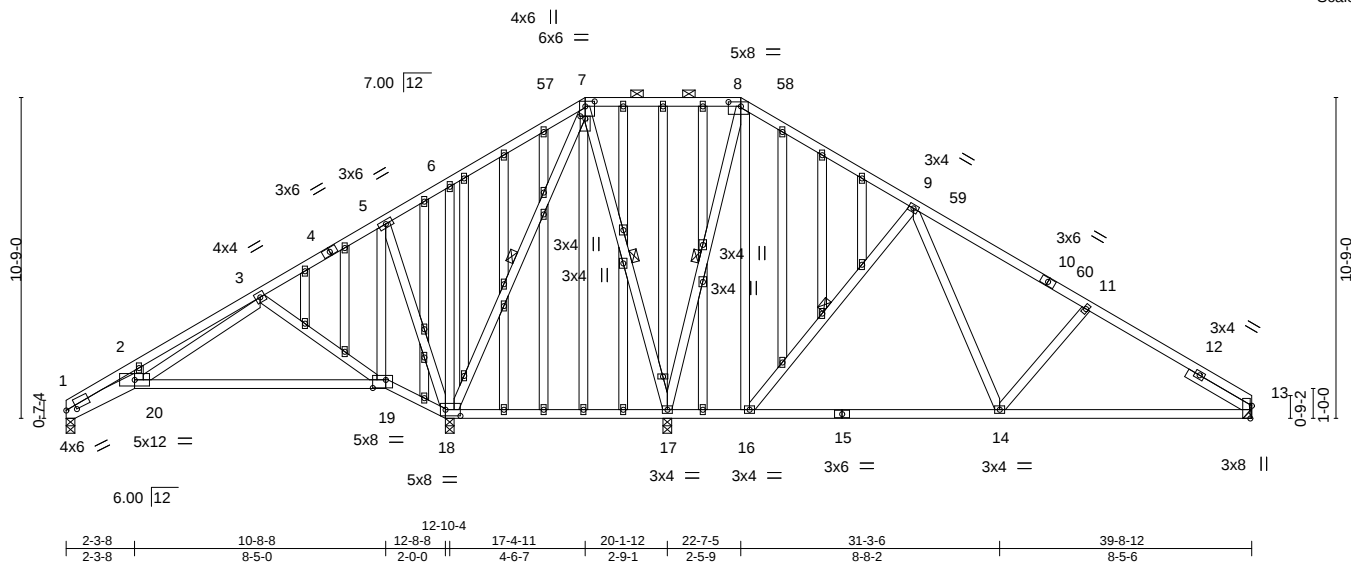


Plate Offsets (X,Y)-- [1:0-4-1,0-1-6], [7:0-0-15,0-2-0], [7:0-3-12,0-2-0], [8:0-5-0,0-1-12], [13:0-5-2,Edge], [18:0-6-0,0-2-8], [19:0-5-4,0-3-4]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.4 (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: 314 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
OTHERS 2x4 SPF No.2	
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) 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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MiTek
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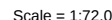
Job	Truss	Truss Type	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020			Summit/5 Hawthorn Rldge	I41495593
2339007	C1	GABLE		Ply	1	Job Reference (optional)	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			ID:xKFGJ7evN?7xhJE66FFHhCzvA57-v6jwfWouD_y9X7Or1SVLCS0kO4PTU3bBarHdpPzAN2x 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:30 2020 Page 2				
NOTES- 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and bottom chord. 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.			1/2" gypsum sheetrock be applied directly to the				

 **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



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
SLIDER	Right 2x4 SPF No.2 2-6-0		7-17, 8-17, 9-16, 7-18

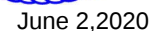
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

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

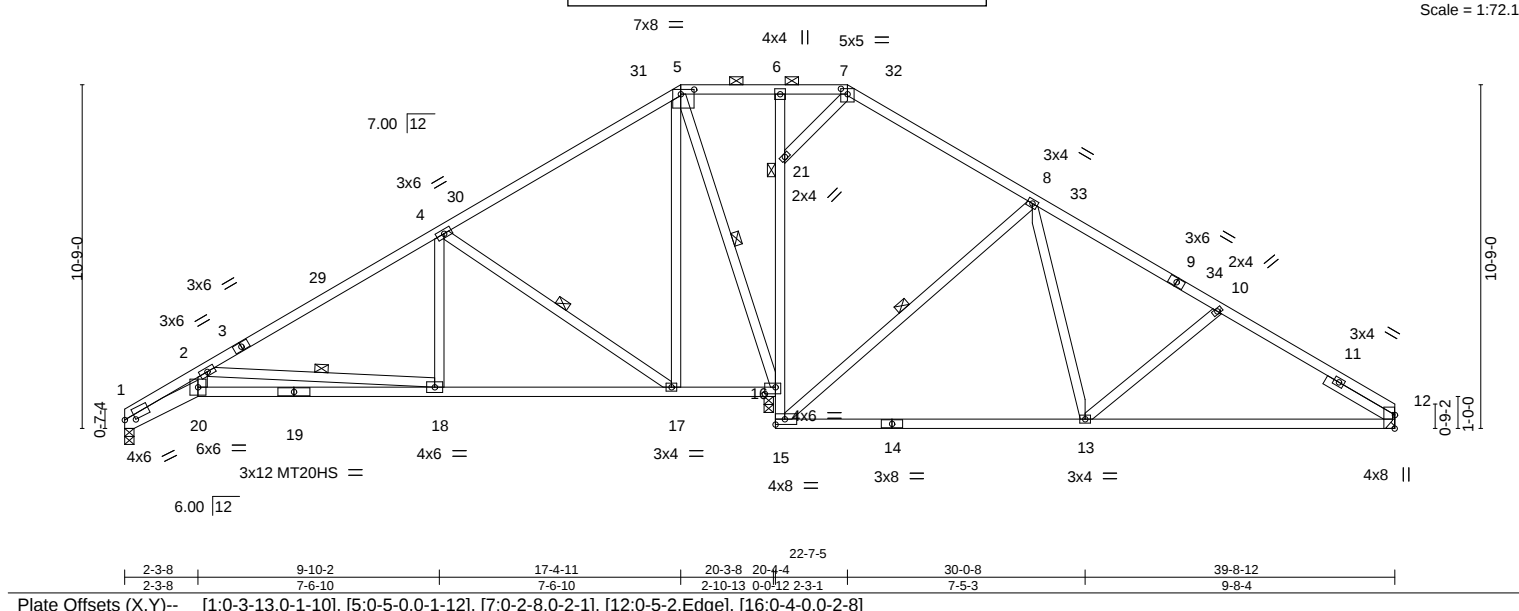
BOT CHORD
1-20=-153/665, 18-19=-491/98, 17-18=-411/108, 14-16=-3/289, 13-15=-47/657

WEBS
3-20=-88/822, 3-19=-422/104, 5-18=-352/37, 6-18=-351/86, 7-17=-304/26,
8-17=-1480/33, 8-16=-53/716, 9-16=-795/129, 9-14=-7/487, 11-14=-313/103,
7-18=-119/69

- 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.



Job 2339007	Truss C3	Truss Type Piggyback Base	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI		Summit/5 Hawthorn Rldge 141495595 Job Reference (optional)
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:36 2020 Page 1 ID:xKFGJ7evN77xhJE66FFHnCzvA57-jF4BwZsfoqjF2r_NjclSjGieVOCupf3zmkx13zAN2r		



Job	Truss	Truss Type	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI		Ply	Summit/5 Hawthorn Rldge	I41495596
2339007	C4	Piggyback Base	ID:xKFGJ7evN?77xhJE66FFHnCzvA57-geCxLFuvKRY1UM?NV8eDX8L2PI45MkYMQ4D25xzAN2p		1	Job Reference (optional)	

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

8,240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:38 2020 Page 1
CzA57-geCxLFuvKRY1UM?NV8eDX8L2PI45MkYMQ4D25xzAN2p

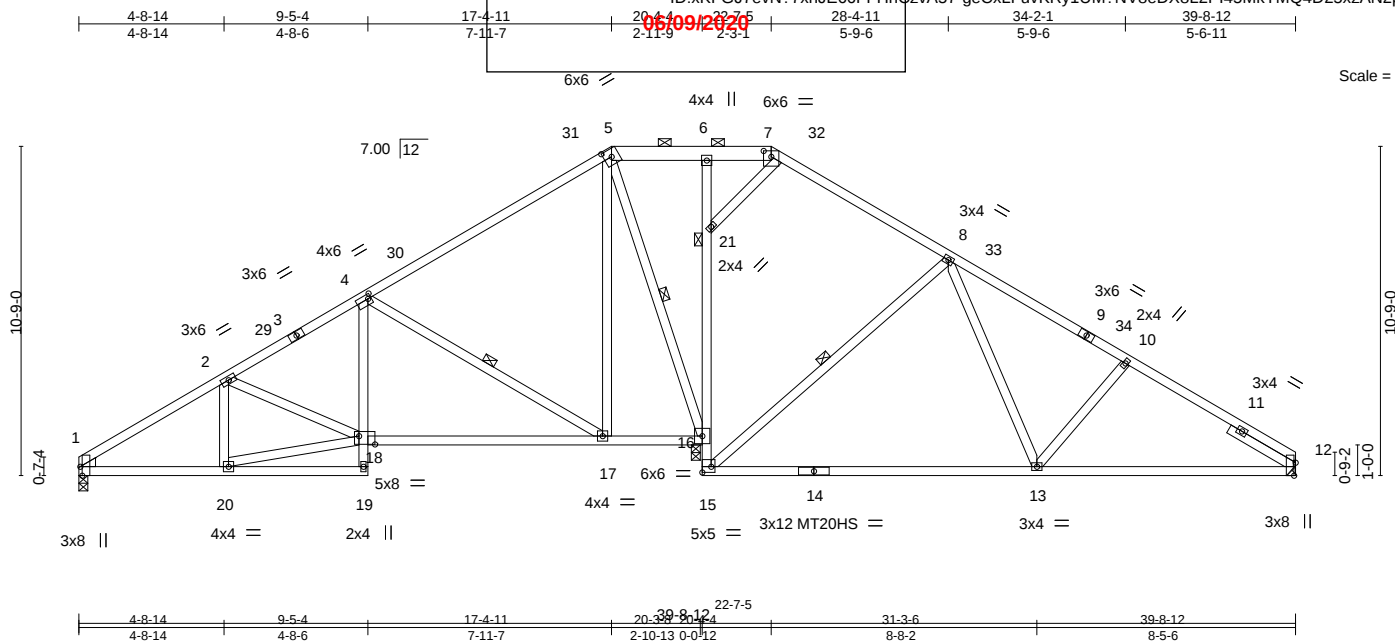


Plate Offsets (X,Y)-- [1:0-0-2,0-0-4], [1:0-0-5,0-4-8], [1:0-3-8,Edge], [4:0-1-4,0-1-12], [5:0-3-0,0-2-15], [7:0-3-0,0-2-5], [12:0-5-2,Edge], [15:Edge,0-2-4], [18:0-6-4,0-3-4]

LOADING (psf)	SPACING	CSI	DEFL.	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.73	in (loc) l/defl L/d	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.79	Vert(LL) -0.32 13-15 >728 240	MT20HS	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.45	Vert(CT) -0.64 13-15 >361 180		
BCLL 0.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 16 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014			Weight: 195 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2 *Except*
5-7: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2
SLIDER Right 2x4 SPF No.2 2-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 5-7.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 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=190(LC 7)
Max Uplift 1=-28(LC 10), 16=-4(LC 10), 12=-65(LC 11)
Max Grav 1=832(LC 28), 16=2001(LC 28), 12=773(LC 28)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1265/55, 2-4=-1221/81, 4-5=-405/130, 8-10=-939/151, 10-12=-997/132
BOT CHORD 1-20=-96/1057, 4-18=0/449, 17-18=-65/1070, 15-16=-36/672, 16-21=-480/14,
6-21=-370/24, 13-15=0/552, 12-13=-58/899
WEBS 18-20=-66/1015, 4-17=-1036/142, 5-17=-6/643, 5-16=-941/72, 8-15=-855/121,
8-13=0/528, 10-13=-281/105

- 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) All plates are MT20 plates unless otherwise indicated.
 - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 7) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 16, 12.
 - 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.

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 D1	Truss Type Common Supported Gable	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020	Ply 1	Summit/5 Hawthorn Rldge 141495597
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-c1JimxwAs2Clk9mcYghcZRZn6yRqkVftOi8AqzAN2n		
0-10-8 0-10-8			10-4-12 10-4-12		
0-10-8 0-10-8			20-9-8 10-4-12		
			21-8-0 0-10-8		

Scale = 1:36.4

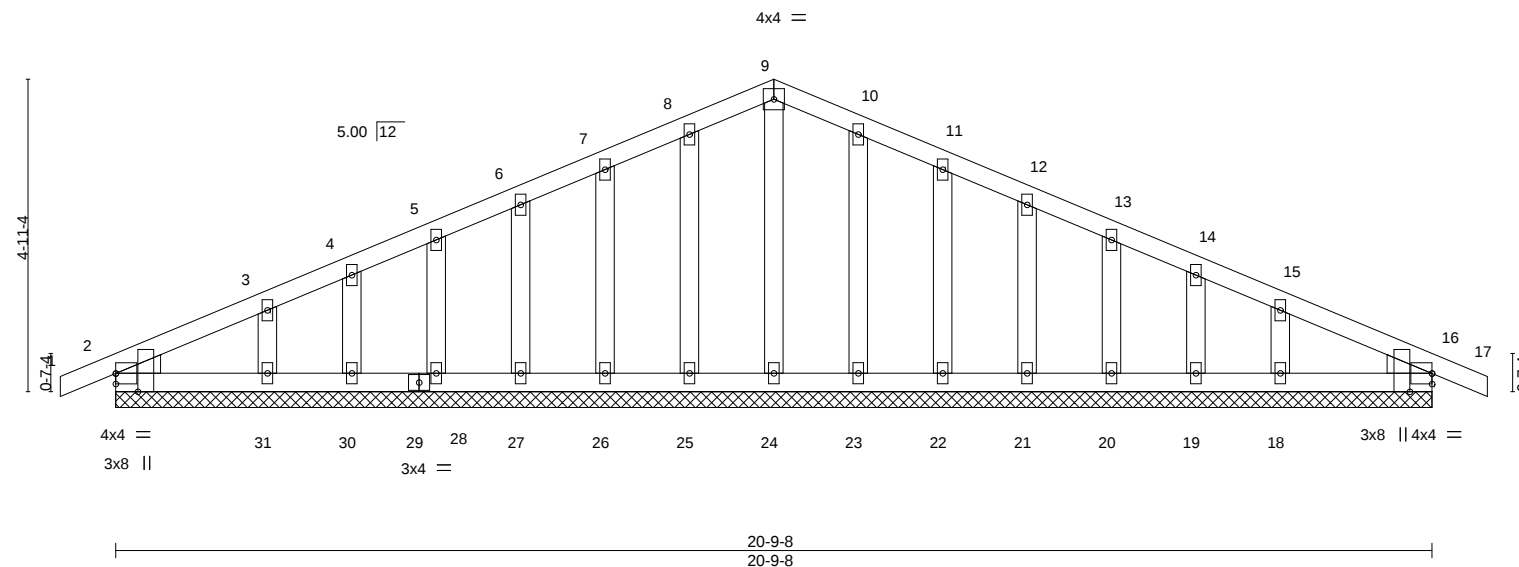


Plate Offsets (X,Y)-- [2:0-3-7,Edge], [16:0-3-7,Edge]							
LOADING (psf)		SPACING-		CSI.		DEFL.	
TCLL	16.0	2-0-0		TC	0.04	in (loc)	l/defl
(Ground Snow=20.0)		Plate Grip DOL	1.15	BC	0.03	0.00	16
TCDL	10.0	Lumber DOL	1.15	WB	0.03	0.00	16
BCLL	0.0	Rep Stress Incr	YES	Matrix-S		0.00	16
BCDL	10.0	Code IRC2018/TPI2014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

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

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

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

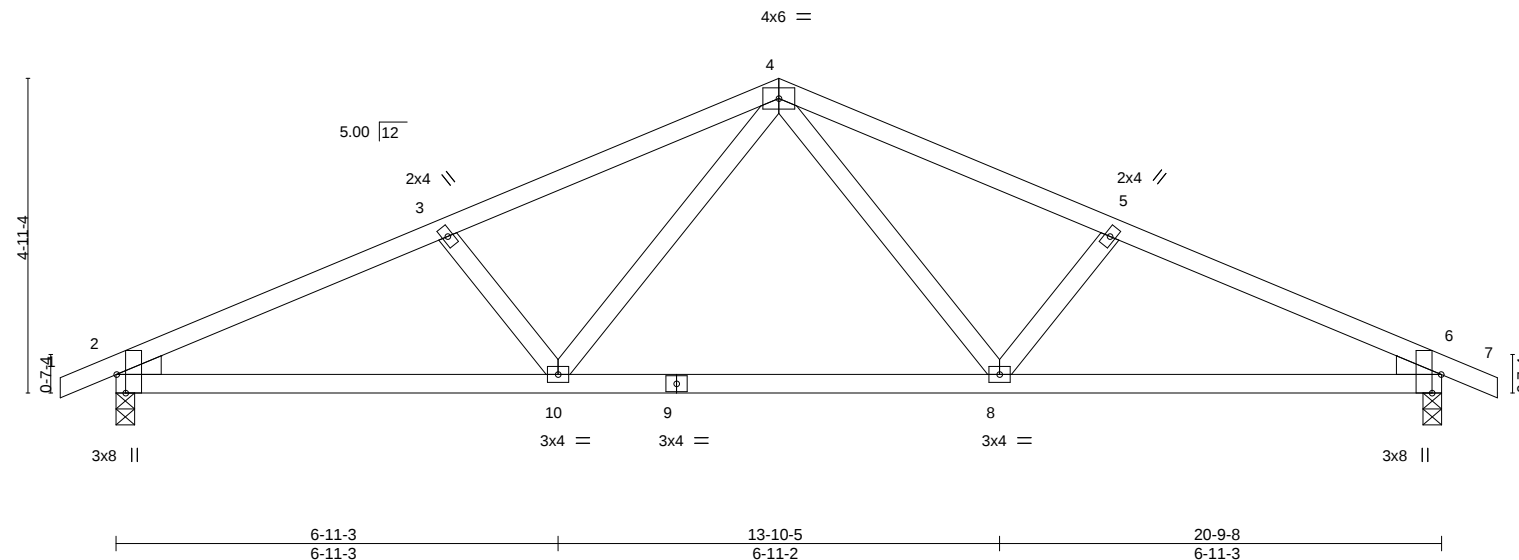
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 D2	Truss Type Common	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI		Ply 1 Summit/5 Hawthorn Rldge I41495598
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:41 2020 Page 1 ID:xKFGJ7evN?7xhJE66FFHhCzvA57-4Dt4ZHwodMLcLpkyAGCw9nzfLWB1ZAXo62SiGzAN2m 10-4-12 06/09/2020 15-7-1 5-2-5 20-9-8 5-2-7 21-8-0 0-10-8		

Scale = 1:36.1



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	16.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.06	MT20	197/144		
(Ground Snow=20.0)		Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.16				
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.03				
BCLL	0.0	Code IRC2018/TPI2014		Matrix-AS							
BCDL	10.0										

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.

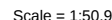
REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=44(LC 10)
 Max Uplift 2=-31(LC 10), 6=-31(LC 11)
 Max Grav 2=823(LC 15), 6=823(LC 16)

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

[illegible]

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)

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 (it=lb)



June 2, 2020

Job	Truss	Truss Type	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020	Ply	Summit/5 Hawthorn Rldge
2339007	D3	GABLE		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 2

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Job Reference (optional)

- NOTES-**
- 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.
 - 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.
 - Studding applied to ply: 1(Front)

LOAD CASE(S) Standard

- 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.**

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI			Summit/5 Hawthorn Rldge
2339007	E2	Piggyback Base	Ply	1		I41495601
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			
0-2-8 3-10-3 5-7-4 11-6-10 18-3-12 25-10-13 33-6-0 34-4-8			ID:xKFGJ7evN?7xhJE66FFHnCzvA57-n8Us3i23GRbBYMvIMNGZuOH1YUKvamGPctE2hzAN2c			
0-3-8 3-6-11 1-9-1 5-11-6 6-9-2 7-7-1 7-7-3 0-10-8			06/09/2020			

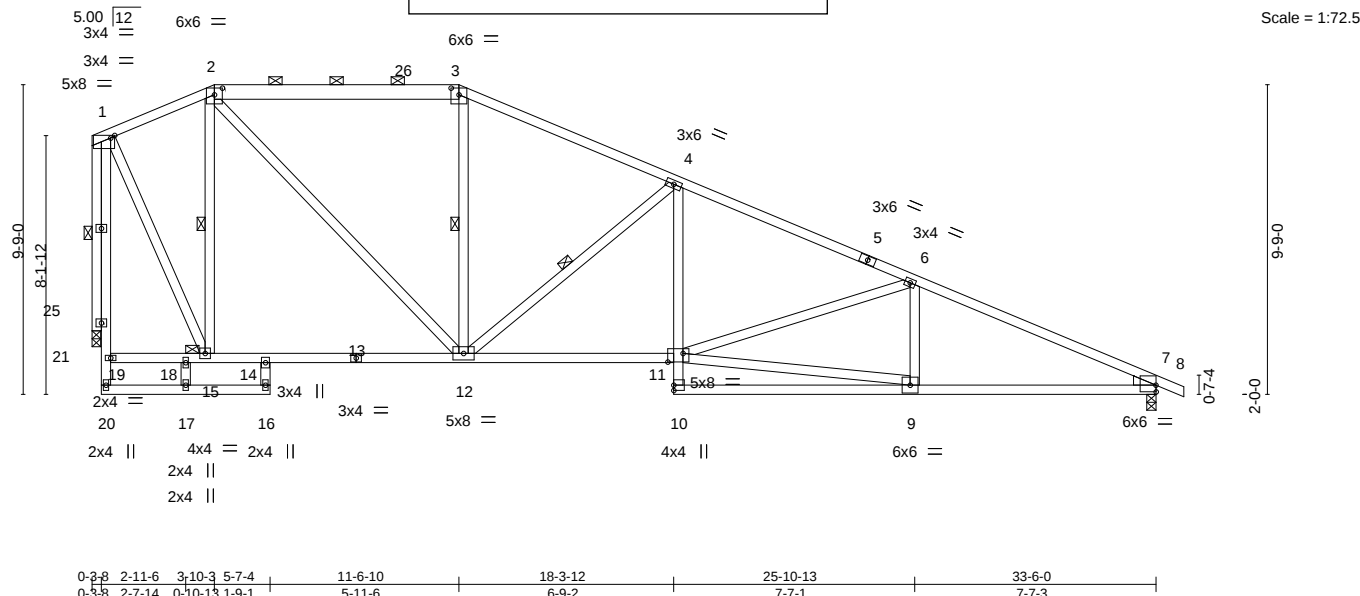


Plate Offsets (X,Y)--		[1:0-1-8,0-1-0], [2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [7:0-0-1,0-0-0], [7:0-5-11,0-0-1], [7:Edge,0-2-8], [11:0-5-12,0-3-4]	
LOADING (psf)		SPACING-	2-0-0
TCLL	20.4	Plate Grip DOL	1.15
(Ground Snow=20.0)		Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0	Code IRC2018/TPI2014	
BCDL	10.0		
		CSI.	
		TC	0.67
		BC	0.91
		WB	0.57
		Matrix-AS	
		DEFL.	
		in (loc)	
		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	
		MT20	197/144
		GRIP	
			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-

- 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) 25 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, 25.
- 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

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	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI			Summit/5 Hawthorn Rldge	I41495602
2339007	E3	Piggyback Base	Ply	1		Job Reference (optional)	
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,	8,240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:53 2020 Page 1 ID:xKFGJ7evN77xhJE66FFHnCzva57-jXccUN4Ko2rvofeFtnPkeJTcJLBPNWhZtwMK7azAN2a				
0-3-8	3-10-3	5-7-4	11-6-10	18-1-4	24-7-14	31-2-8	33-6-0
0-3-8	3-6-11	1-9-1	5-11-6	6-6-10	6-6-10	6-6-10	2-3-8
				06/09/2020			

Scale = 1:67.5

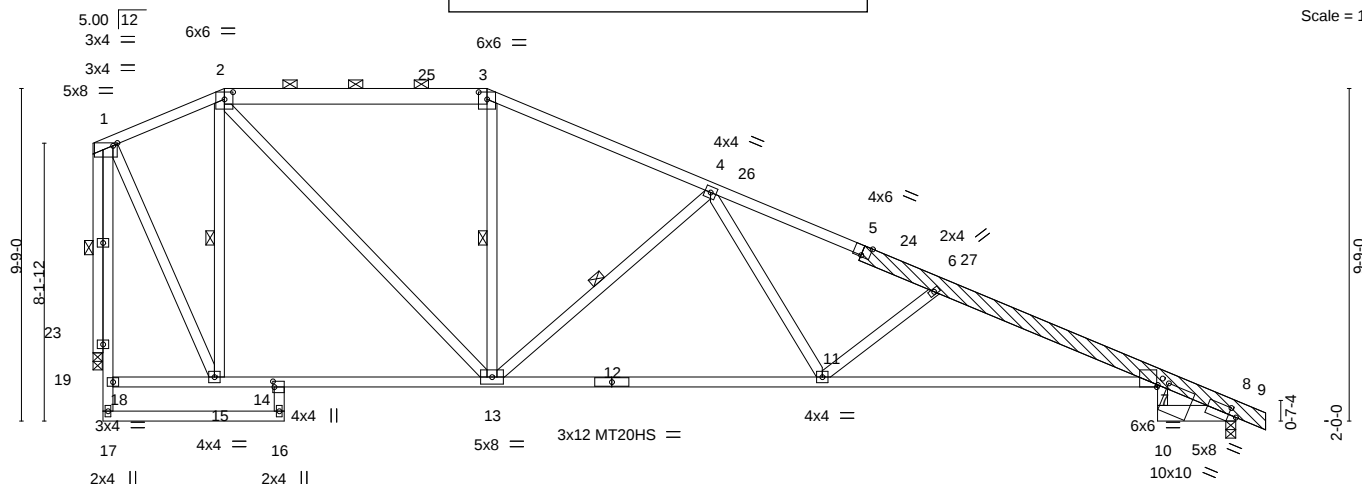


Plate Offsets (X,Y)--	0-3-8	3-10-3	5-7-4	11-6-10	21-4-9	31-2-8	33-6-0
	0-3-8	3-6-11	1-9-1	5-11-6	9-9-15	9-9-15	2-3-8
	[1:0-1-8,0-1-0], [2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [5:0-3-0,Edge], [7:0-0-5,Edge], [7:0-1-14,0-0-0], [7:0-2-11,0-0-12], [7:0-3-5,0-1-6], [8:0-2-12,0-2-8], [10:0-1-10,0-0-11], [14:0-2-0,0-0-8]						

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.75	Vert(LL)	-0.39	7-11	>999	240	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.87	Vert(CT)	-0.87	7-11	>460	180	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.42	Horz(CT)	0.26	8	n/a	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	TOP CHORD
2x4 SPF No.2 *Except*	Structural wood sheathing directly applied, except end verticals, and
2-3: 2x6 SPF No.2, 5-9: 2x6 SPF 2100F 1.8E	2-0-0 oc purlins (5-9-6 max.): 2-3.
BOT CHORD	BOT CHORD
2x4 SPF No.2 *Except*	Rigid ceiling directly applied.
8-10: 2x6 SPF No.2, 7-12: 2x4 SPF 1650F 1.5E	1 Row at midpt
WEBS	3-13, 4-13, 2-15, 1-23
OTHERS	
LBR SCAB	

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

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.	MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017
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Job	Truss	Truss Type	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020			Summit/5 Hawthorn Rldge
2339007	E3	Piggyback Base	8.240 s	1		I41495602
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 2			
NOTES- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.			Job Reference (optional) ID:xKFGJ7evN?7xhJE66FFHnCzva57-jXccUN4Ko2rvofeFtnPkeJTcJLBPNWhZtwMK7azAN2a			

 **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 2339007	Truss E4	Truss Type Piggyback Base	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI	Ply 1	Summit/5 Hawthorn Rldge I41495603
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		

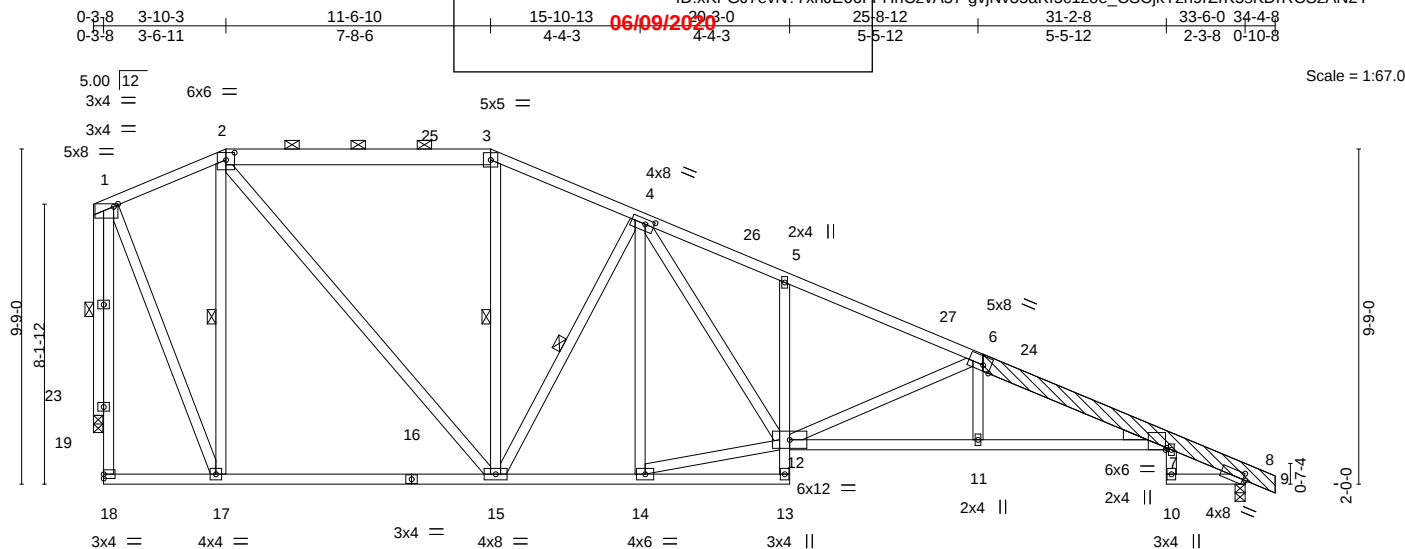


Plate Offsets (X,Y)--	1:0-1-8,0-1-0	2:0-3-0,0-2-9	4:0-3-2,0-1-12	6:0-2-12,Edge	7:0-0-5,Edge	8:0-0-15,0-2-3
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4	Plate Grip DOL	1.15	TC 0.69	Vert(LL)	-0.32	7-11	>999	240	MT20	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-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-3: 2x6 SPF No.2, 6-9: 2x6 SPF 2100F 1.8E	2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
7-12,13-16: 2x4 SPF 1650F 1.5E	WEBS 1 Row at midpt 2-17, 3-15, 4-15, 1-23
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	

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; BCCL=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.



June 2,2020

Continued on page 2

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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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020			Summit/5 Hawthorn Rldge
2339007	E4	Piggyback Base		1		I41495603
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			Job Reference (optional)			
NOTES-			ID:xKFGJ7evN?7xhJE66FFHnCzvA57-gvjNv35aKf5c1zoe_CSCjkYzn9rZrK5sKDrRCSzAN2Y			
11) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and bottom chord.			8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 08:59:55 2020 Page 2			
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.			1/2" gypsum sheetrock be applied directly to the			

 **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: 2339007

Truss: E5

Truss Type: Piggyback Base

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

86/09/2020

Summit/5 Hawthorn Rldge

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?7xhJE66FFHhCzvA57-clr7KI7qsHMKGHy16dUgo9eJRyXhJGz9oXKYGLZAN2W

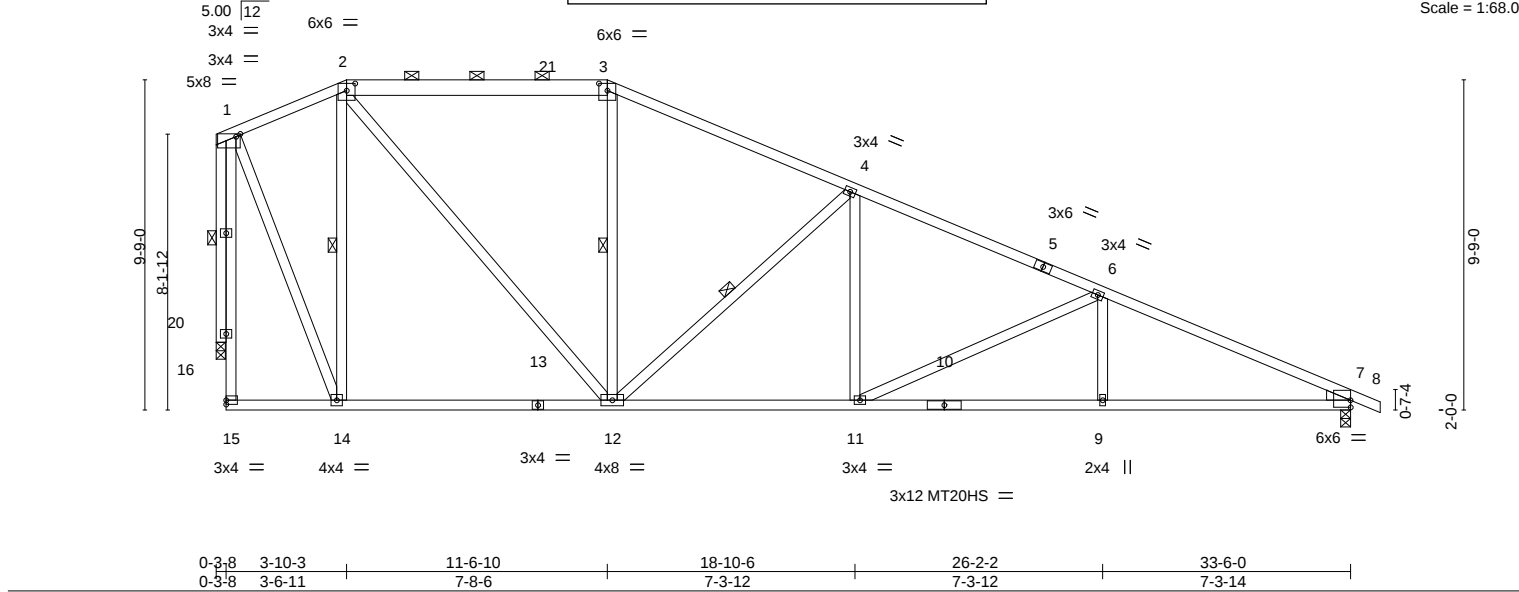


Plate Offsets (X,Y)-- [1:0-1-8,0-1-0], [2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [7:0-0-1,0-0-0], [7:0-5-11,0-0-1], [7:Edge,0-2-8]																			
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	20.4	Plate Grip DOL		1.15		TC	0.68	Vert(LL)	-0.18	9-11	>999		240		MT20		197/144		
(Ground Snow=20.0)		Lumber DOL		1.15		BC	0.91	Vert(CT)	-0.36	9-11	>999		180		MT20HS		148/108		
TCDL	10.0	Rep Stress Incr		YES		WB	0.66	Horz(CT)	0.12	7	n/a		n/a						
BCLL	0.0	Code IRC2018/TPI2014				Matrix-AS										Weight: 175 lb		FT = 20%	
BCDL	10.0																		

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 2-14, 3-12, 4-12, 1-20
OTHERS 2x4 SPF No.2	
WEDGE	
Right: 2x4 SPF No.2	

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

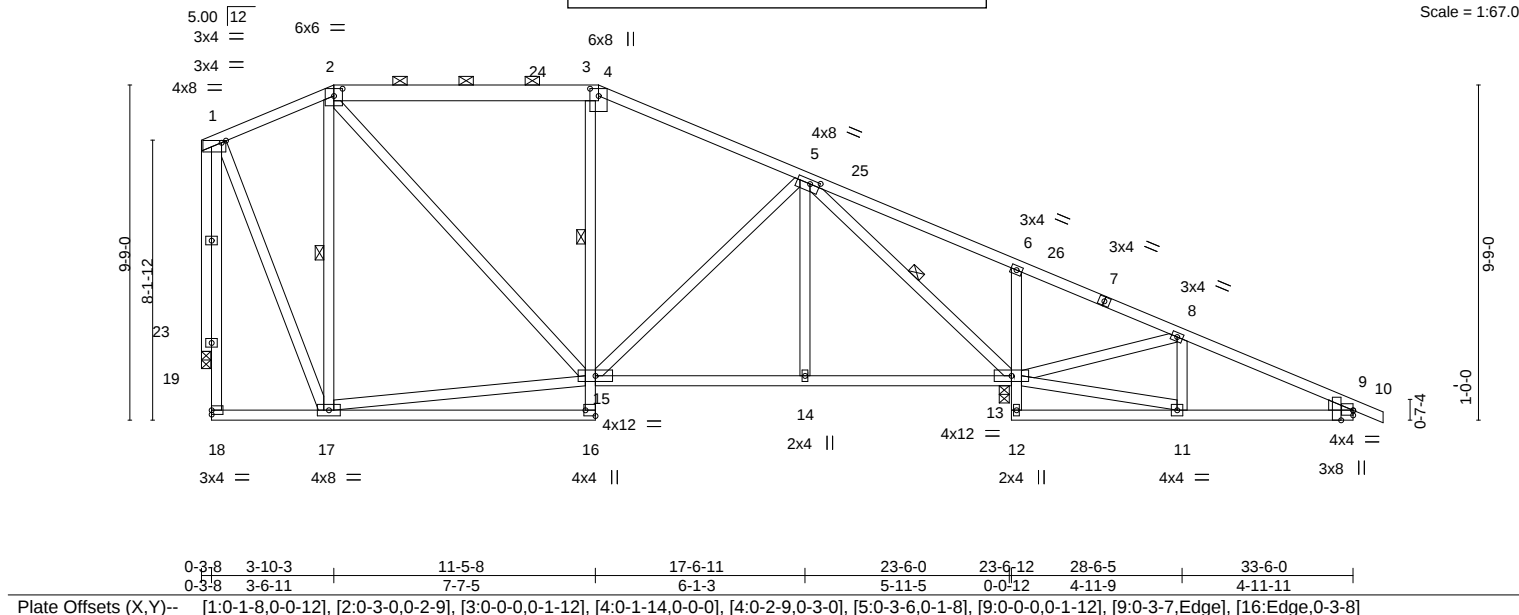
- NOTES-**
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pg= 20.0 psf; Pf=20.4 psf (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

Job 2339007	Truss E6	Truss Type Piggyback Base	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020	Ply 1	Summit/5 Hawthorn Rldge I41495605
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		
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			ID:xKFGJ7evN?7xhJE66FFHnCzvA57-YhztIR84Ouc2Wa6PD2W8uajf7mM5nA3SFrfLEZAN2U Job Reference (optional)		

Scale = 1:67.0



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-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-4: 2x6 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 2-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied. Except:
WEBS 2x4 SPF No.2	1 Row at midpt 3-15
OTHERS 2x4 SPF No.2	WEBS 1 Row at midpt 2-17, 5-13
WEDGE	
Right: 2x4 SPF No.2	

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) 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.
 - 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

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 E7	Truss Type Piggyback Base	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020	Ply 1	Summit/5 Hawthorn Rldge I41495606
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:xKFGJ7evN77xhJE66FFHnCcZvA57-U35eA7ALvVsmLuFoLTZcz?o_da1ZF4YIj9ImP6zAN2S		
3-10-3 3-10-3 11-6-10 7-8-6 17-6-11 6-0-1 23-6-12 6-0-1 28-6-5 4-11-9 33-6-0 4-11-11 34-4-8 0-10-8			Job Reference (optional)		

Scale = 1:66.6

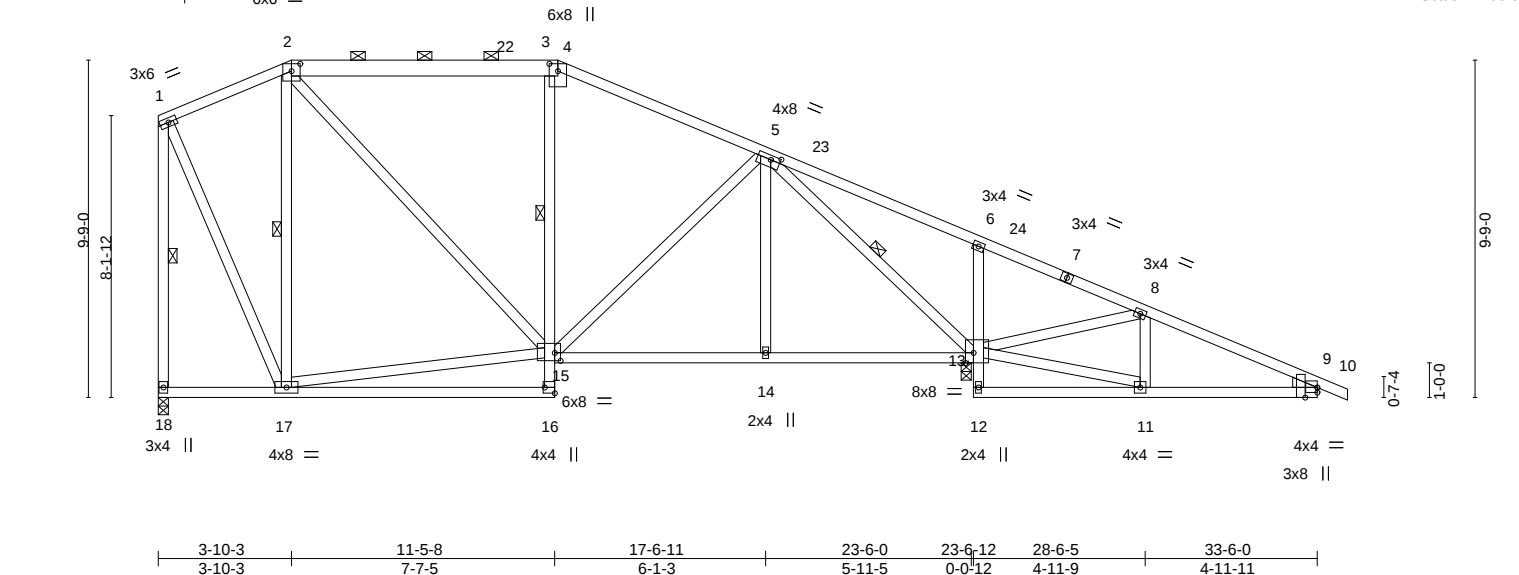


Plate Offsets (X, Y)--	[2:0-3-0,0-2-9], [3:0-0-0,0-1-12], [4:0-2-9,0-3-0], [4:0-1-14,0-0-0], [5:0-3-6,0-1-8], [9:0-3-7,Edge], [9:0-0-0,0-1-12], [13:0-2-12,Edge], [15:0-2-0,0-2-12], [16:Edge,0-3-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.67	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-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 2-4: 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied. Except:
WEBS 2x4 SPF No.2	1 Row at midpt 3-15
WEDGE	WEBS 1 Row at midpt 2-17, 5-13, 1-18
Right: 2x4 SPF No.2	

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

Job 2339007	Truss E8	Truss Type Piggyback Base	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020	Ply 1	Summit/5 Hawthorn Rldge I41495607
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?7xhJE66FFHnCzvA57-zGe0NSBzgp_dN2q_vA4rVCLBGzEO_ZZuxp1JxYZAN2R C3vA57-zGe0NSBzgp_dN2q_vA4rVCLBGzEO_ZZuxp1JxYZAN2R		

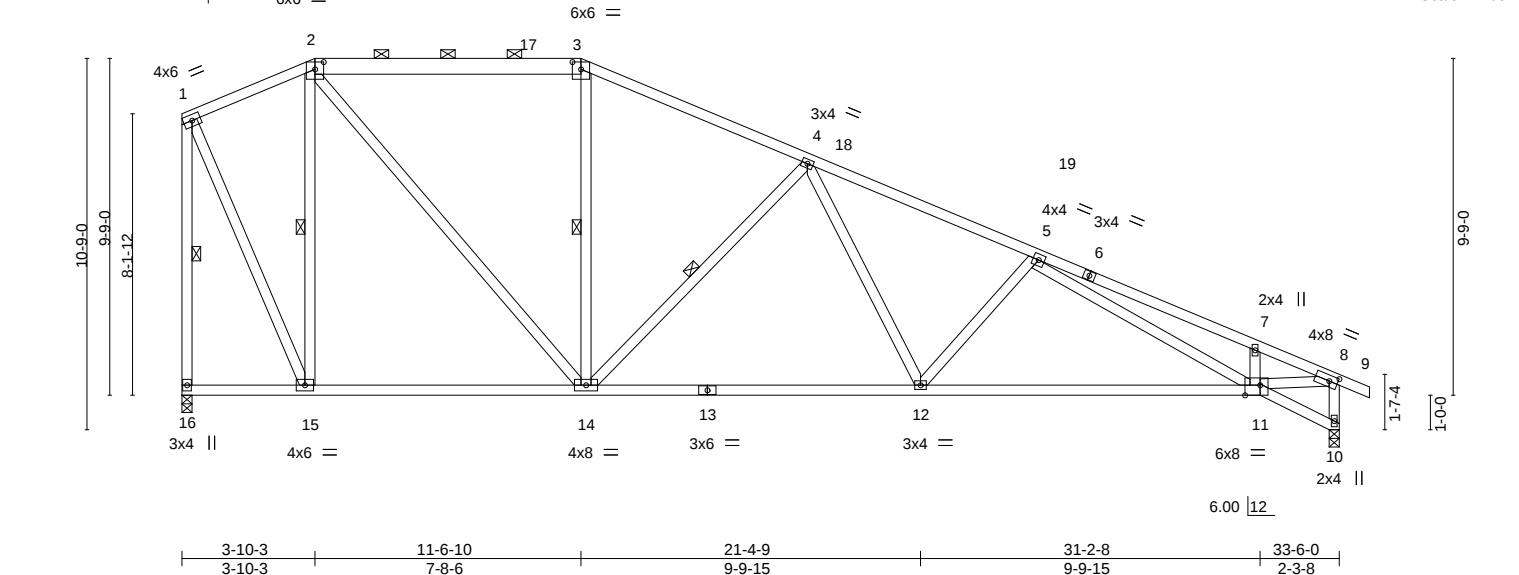


Plate Offsets (X,Y)--		[2:0-3-0,0-2-9], [3:0-3-0,0-2-9], [8:0-2-15,0-2-0], [11:0-5-4,Edge]	
LOADING (psf)		SPACING-	2-0-0
TCLL	20.4	Plate Grip DOL	1.15
(Ground Snow=20.0)		Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0	Code	IRC2018/TPI2014
BCDL	10.0		
		CSI.	
		TC	0.55
		BC	0.94
		WB	0.57
		Matrix-AS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

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	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

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	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI		Ply	Summit/5 Hawthorn Rldge
2339007	E9	GABLE	ID:xKFGJ7evN77xhJE66FFHn		1	I41495608
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			
3-6-11 3-6-11			11-3-2 7-8-6		33-2-8 21-11-6	34-1-0 0-10-8
5.00 12			5x5 =		06/09/2020	
5x5 =			0-1-13		Scale = 1:66.6	

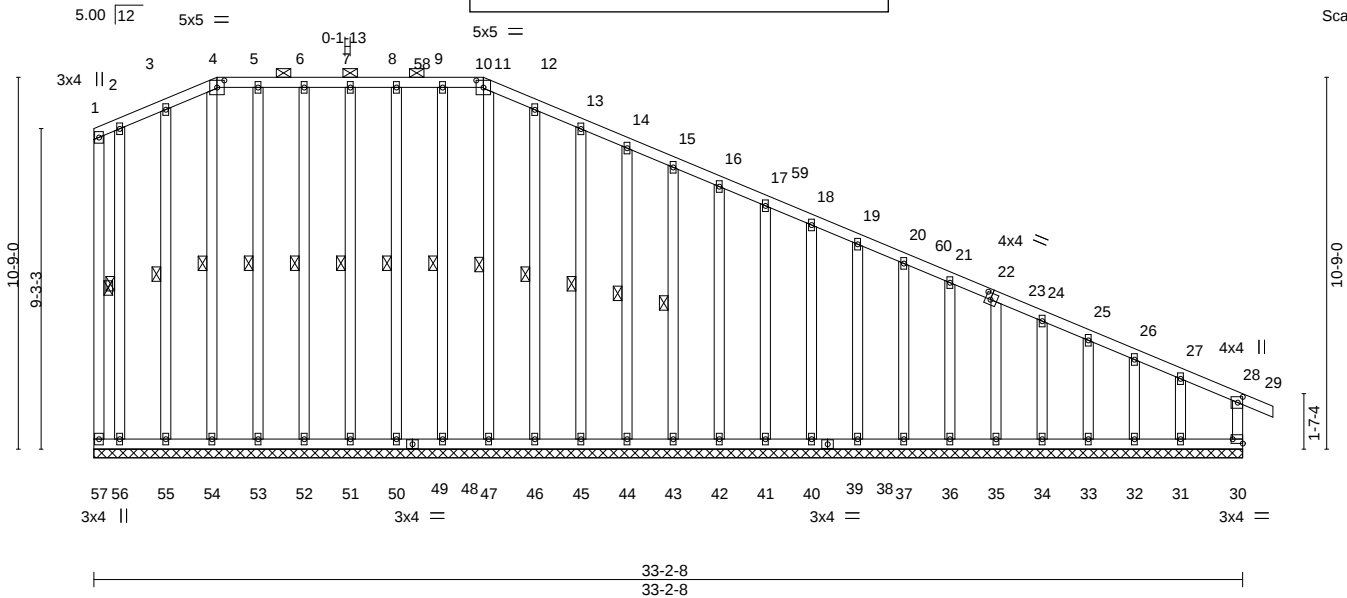


Plate Offsets (X,Y)--	[4:0-2-8,0-2-7], [10:0-0-0,0-1-12], [10:0-2-8,0-2-7], [11:0-1-12,0-0-12], [22:0-1-12,0-2-4], [22:0-0-0,0-1-12], [23:0-1-14,0-0-0], [28:0-2-0,0-1-12], [30:Edge 0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4 (Ground Snow=20.0)	2-0-0	TC 0.28	Vert(LL)	-0.00	28	n/r	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	0.00	28	n/r		
BCLL 0.0	Lumber DOL 1.15	WB 0.12	Horz(CT)	0.01	30	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-R					Weight: 291 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 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-**
- 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=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) 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) Provide adequate drainage to prevent water ponding.
 - 7) All plates are 2x4 MT20 unless otherwise indicated.
 - 8) Gable requires continuous bottom chord bearing.
 - 9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 10) Gable studs spaced at 1-4-0 oc.
 - 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 12) 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.
 - 13) 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.
 - 14) 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

2339007

Truss

G1

Truss Type

FLAT GIRDER

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

Ply

2

Summit/5 Hawthorn Rldge

I41495609

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020

MiTek Industries, Inc.

Tue Jun 2 09:00:08 2020

Page 1

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06/09/2020

2-0-12

4-0-12

6-0-12

8-0-12

10-0-12

12-0-12

14-0-12

16-0-12

18-0-12

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2-0-0

2-0-0

2-0-0

2-0-0

2-0-0

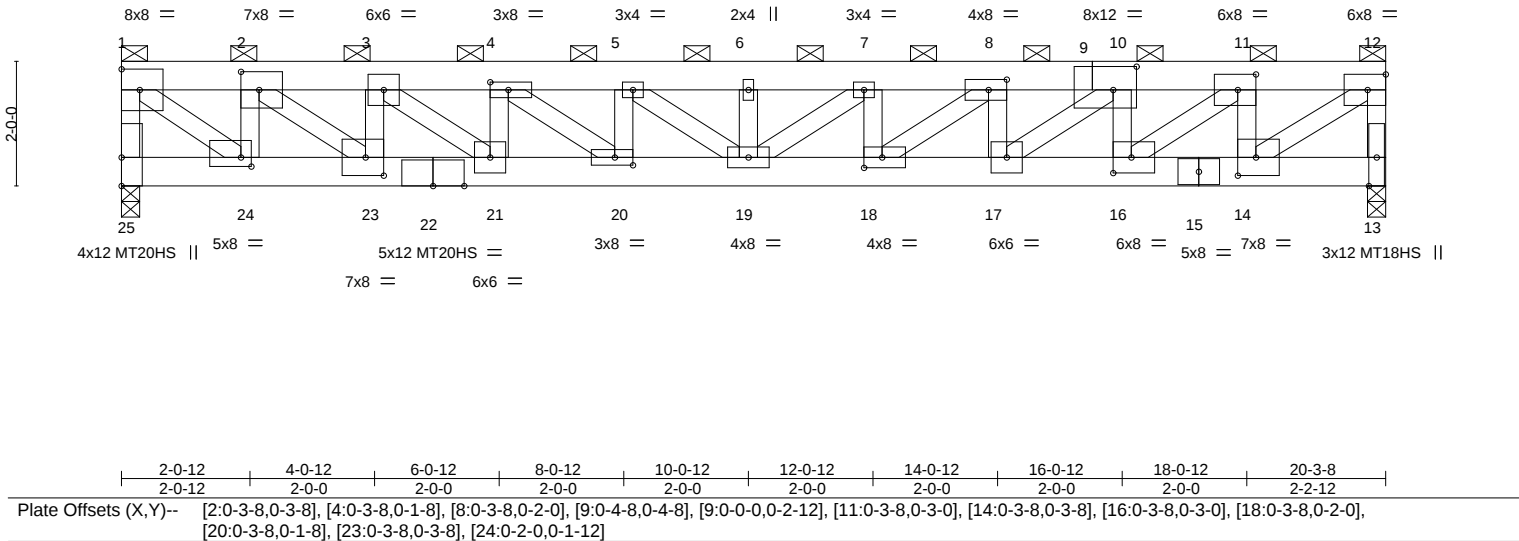
2-0-0

2-0-0

2-0-0

2-2-12

Scale = 1:37.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.4	2-0-0	TC 0.70	Vert(LL) -0.28	19	>848	240	MT20	197/144
(Ground Snow=20.0)	Plate Grip DOL 1.15	BC 0.85	Vert(CT) -0.56	19	>428	180	MT20HS	148/108
TCDL 10.0	Lumber DOL 1.15	WB 0.96	Horz(CT) 0.09	13	n/a	n/a	MT18HS	197/144
BCLL 0.0	Rep Stress Incr NO	Matrix-MS					Weight: 227 lb	FT = 20%
BCDL 10.0	Code IRC2018/TPI2014							

LUMBER-

TOP CHORD 2x6 SPF 2100F 1.8E *Except* 9-12: 2x6 SPF No.2

BOT CHORD 2x6 SP 2400F 2.0E *Except* 15-22: 2x6 SPF 2100F 1.8E

WEBS 2x4 SPF No.2 *Except* 1-24: 2x4 SPF 1650F 1.5E

BRACING-

TOP CHORD 2-0-0 oc purlins (3-2-11 max.): 1-12, except end verticals.

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

REACTIONS. (size) 25=0-3-8, 13=0-3-8

Max Horz 25=-42(LC 20)

Max Uplift 25=-108(LC 4), 13=-143(LC 5)

Max Grav 25=6302(LC 1), 13=5854(LC 1)

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

TOP CHORD 1-25=-6041/110, 1-2=-7403/127, 2-3=-13380/221, 3-4=-17573/291, 4-5=-19946/336, 5-6=-20403/354, 6-7=-20403/354, 7-8=-19153/352, 8-10=-16051/321, 10-11=-11844/256, 11-12=-6508/154, 12-13=-5601/144

BOT CHORD 24-25=-34/265, 23-24=-144/7403, 21-23=-239/13380, 20-21=-309/17573, 19-20=-353/19946, 18-19=-364/19153, 17-18=-330/16051, 16-17=-261/11844, 14-16=-154/6508

WEBS 2-24=-5851/114, 3-23=-4633/93, 4-21=-3196/74, 5-20=-1780/53, 6-19=-1355/36, 7-18=-2355/43, 8-17=-3184/71, 10-16=-4078/98, 11-14=-4798/129, 1-24=-148/9161, 2-23=-124/7546, 3-21=-93/5295, 4-20=-61/2996, 5-19=-26/577, 7-19=-7/1578, 8-18=-44/3917, 10-17=-87/5312, 11-16=-135/6737, 12-14=-174/7805

- 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 0-7-0 oc, 2x6 - 2 rows staggered at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-7-0 oc, Except member 21-4 2x4 - 1 row at 0-9-0 oc, member 20-5 2x4 - 1 row at 0-9-0 oc, member 19-6 2x4 - 1 row at 0-9-0 oc, member 18-7 2x4 - 1 row at 0-9-0 oc, member 17-8 2x4 - 1 row at 0-9-0 oc, member 24-1 2x4 - 1 row at 0-9-0 oc, member 2-23 2x4 - 1 row at 0-9-0 oc, member 21-3 2x4 - 1 row at 0-9-0 oc, member 4-20 2x4 - 1 row at 0-9-0 oc, member 19-5 2x4 - 1 row at 0-9-0 oc, member 7-19 2x4 - 1 row at 0-9-0 oc, member 18-8 2x4 - 1 row at 0-9-0 oc, member 10-17 2x4 - 1 row at 0-9-0 oc, member 16-11 2x4 - 1 row at 0-9-0 oc, member 12-14 2x4 - 1 row at 0-9-0 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
 - 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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500 ft/ft.



June 2,2020

Job	Truss	Truss Type	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020		Ply	Summit/5 Hawthorn Rldge
2339007	G1	FLAT GIRDER	8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:08 2020 Page 2		2	I41495609
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,	ID:xKFGJ7evN?7xhJE66FFHn CzvA57-nP0HeWfKGfkm5zI8FRBFITbAGOIFOA_mKIUd9CzAN2L			

- 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

 **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
PB1

Truss Type
GABLE

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
06/09/2020

Summit/5 Hawthorn Rldge
I41495610

Job Reference (optional)

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

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

ID:xKFGJ7evN?7xhJE66FFHnCzvA57-FcafrsGM1ysdi7tKp8iUlh7VFoma7rBwYPEBhezAN2K

3-10-3
3-10-3

7-8-6
3-10-3

Scale = 1:14.5

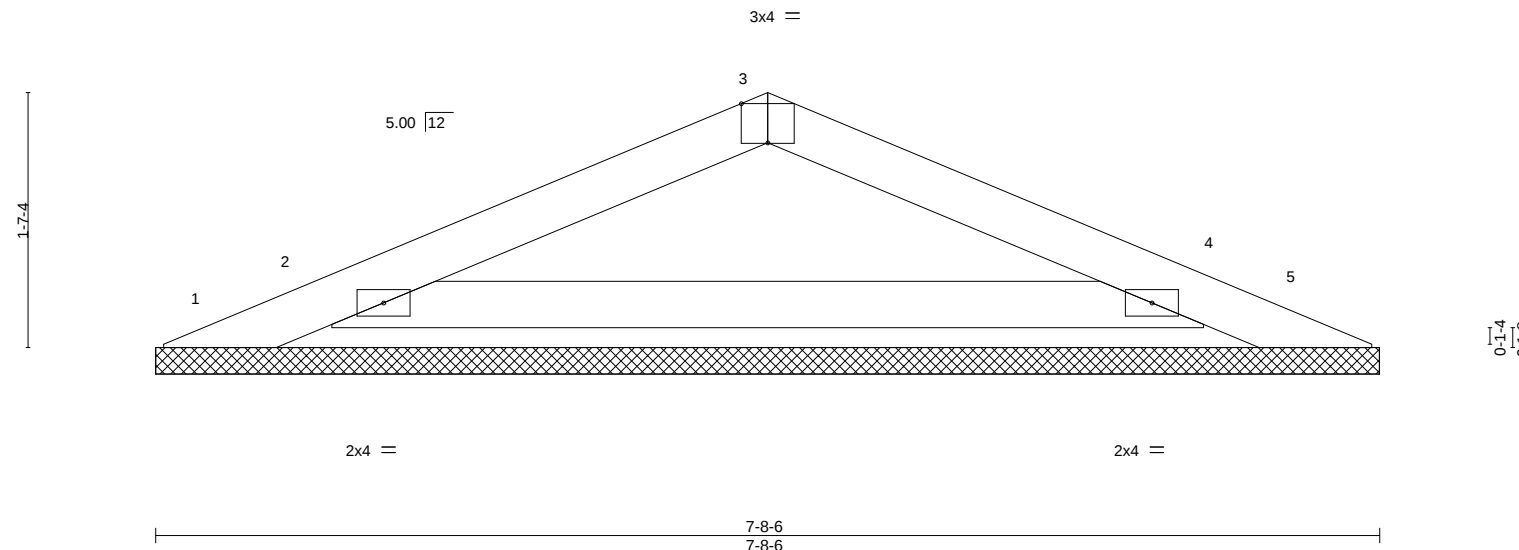


Plate Offsets (X,Y)--		[3:0-2-0,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 16.0	Plate Grip DOL	1.15	TC 0.11
(Ground Snow=20.0)	Lumber DOL	1.15	BC 0.33
TCDL 10.0	Rep Stress Incr	YES	WB 0.00
BCLL 0.0	Code IRC2018/TPI2014		Matrix-P
BCDL 10.0			
DEFL.	in (loc)	l/defl	L/d
Vert(LL)	n/a	-	n/a
Vert(CT)	n/a	-	n/a
Horz(CT)	0.00	5	n/a
PLATES	GRIP		
MT20	197/144		
Weight: 16 lb		FT = 20%	

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.

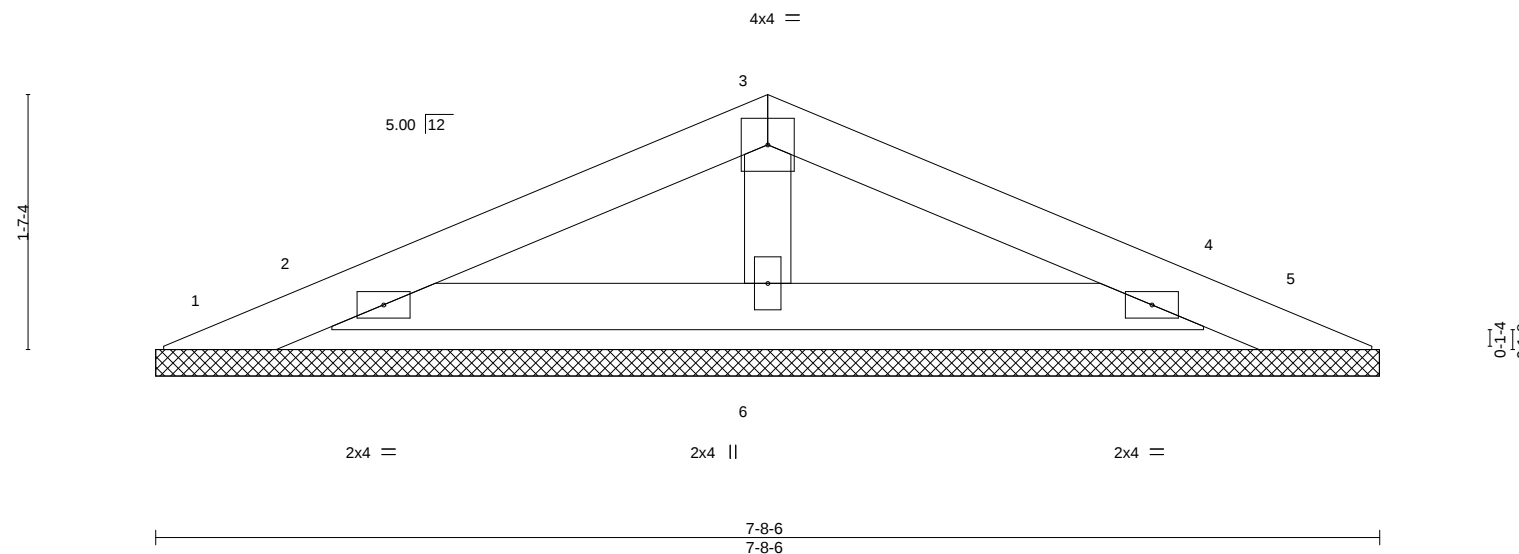
- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the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

Job 2339007	Truss PB2	Truss Type GABLE	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 06/09/2020		Summit/5 Hawthorn Rldge I41495611 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:10 2020 Page 1 ID: xKFGJ7evN?77xhJE66FFHhCzvA57-ko723CH_oG_UKGSXNsDjqugg5CBzslE3n3zkD5zAN2J
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

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-		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.
OTHERS	2x4 SPF No.2		

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

**RELEASE FOR
CONSTRUCTION**
**AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES**
LEE'S SUMMIT, MISSOURI
06/09/2020

Summit/5 Hawthorn Rldge
I41495612

Job Reference (optional)
8.240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:11 2020 Page 1
ID:xKFGJ7evN?77xhJE66FFHnCzvA57-C_hQGXIcZa6LyQ0jwZkyN6DskcVAbIH0jHmXzAN2I

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

2-7-5
2-7-5

3x4 =

5-2-9
2-7-5

Scale = 1:12.2

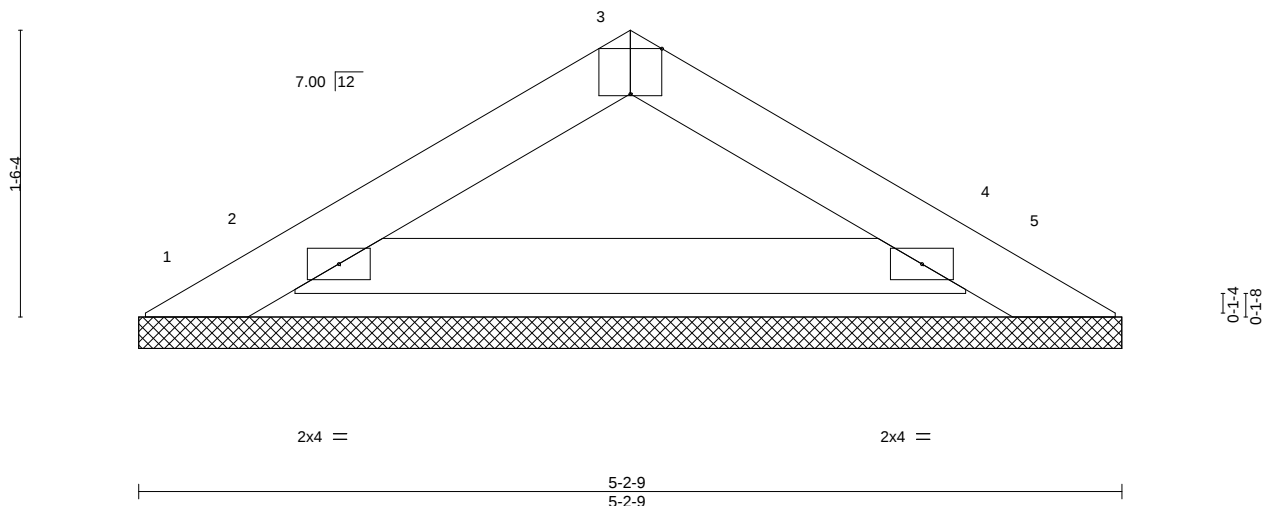


Plate Offsets (X,Y)-- [3:0-2-0,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL 16.0		Plate Grip DOL	1.15	TC 0.05		Vert(LL)	n/a -	n/a	999
(Ground Snow=20.0)		Lumber DOL	1.15	BC 0.13		Vert(CT)	n/a -	n/a	999
TCDL 10.0		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 5	n/a	n/a
BCLL 0.0		Code IRC2018/TPI2014		Matrix-P					
BCDL 10.0									
								PLATES	GRIP
								MT20	197/144
								Weight: 11 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD 2x4 SPF No.2		TOP CHORD	Structural wood sheathing directly applied or 5-2-9 oc purlins.
BOT CHORD 2x4 SPF No.2		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

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

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

06/09/2020
17-9-14

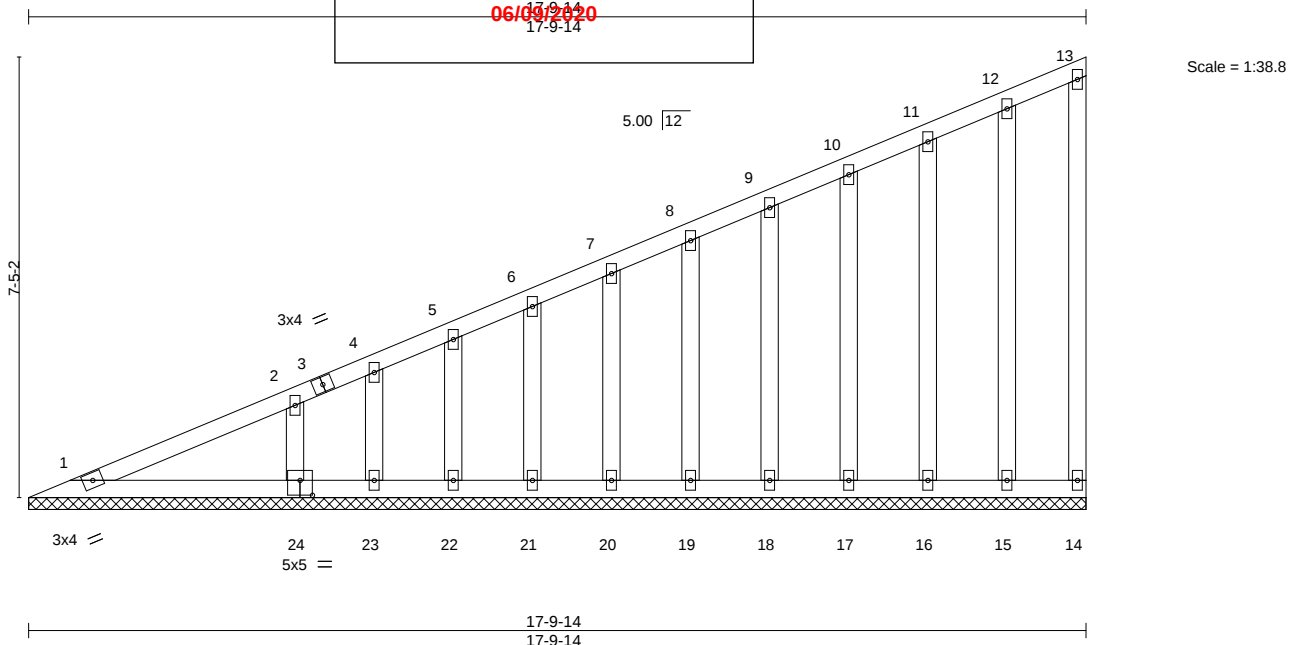


Plate Offsets (X,Y)-- [24:0-2-8,0-3-0]		17-9-14 17-9-14	
LOADING (psf)		SPACING-	2-0-0
TCLL	16.0	Plate Grip DOL	1.15
(Ground Snow=20.0)		Lumber DOL	1.15
TCDL	10.0	Rep Stress Incr	YES
BCLL	0.0	Code IRC2018/TPI2014	
BCDL	10.0		
		CSI.	
		TC	0.17
		BC	0.09
		WB	0.08
		Matrix-S	
		DEFL.	in (loc) l/defl L/d
		Vert(LL)	n/a - n/a 999
		Vert(CT)	n/a - n/a 999
		Horz(CT)	-0.00 14 n/a n/a
		PLATES	GRIP
		MT20	197/144
		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	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		
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)

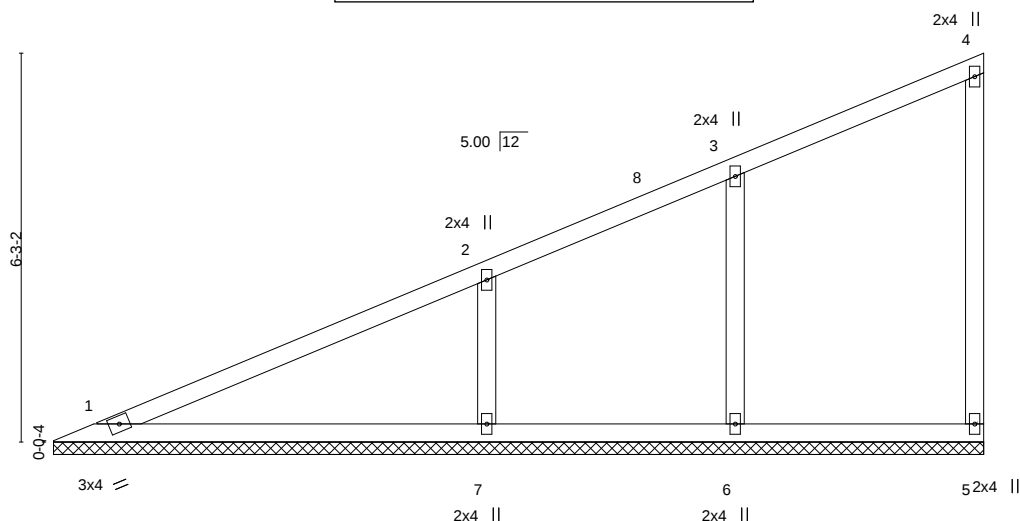
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

- 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

Job 2339007	Truss V2	Truss Type Valley	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI ID: xKFGJ7evN?7xhJE66FFHnCzVA57-8NpAhDJs5BN3BkA52_mQsXi7DP8T3emWT1COqQzAN2G 65-0-5 15-0-5 65-0-5			Summit/5 Hawthorn Ridge I41495614
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8,240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:13 2020 Page 1			Job Reference (optional)



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

RELEASE FOR

CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

Ply
1

Summit/5 Hawthorn Rldge
I41495615

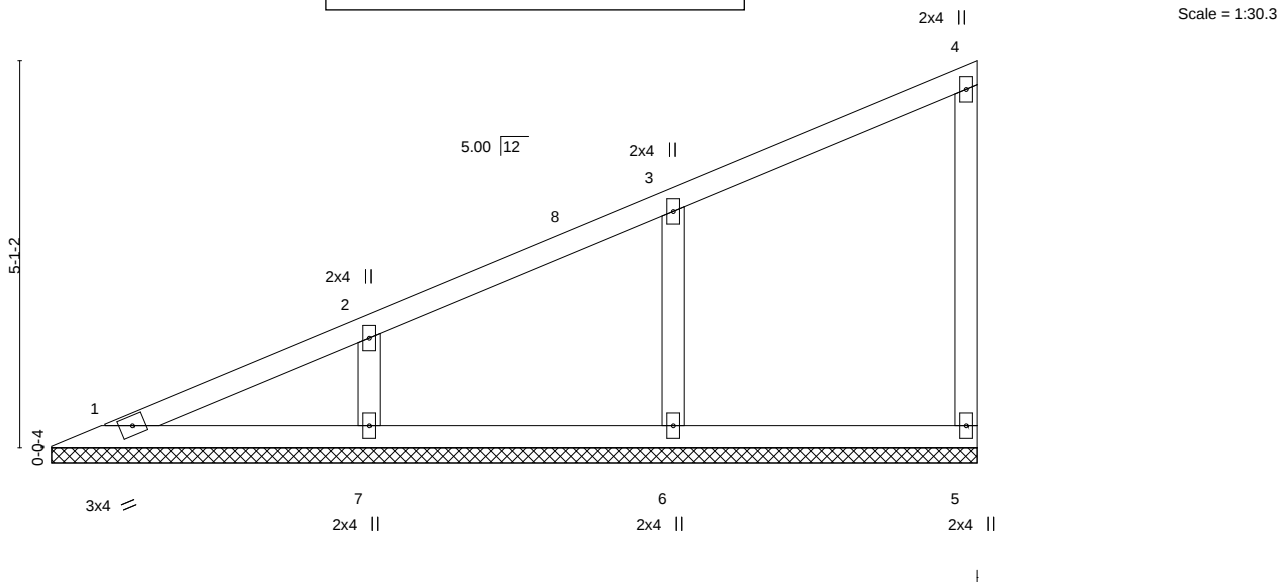
Job Reference (optional)

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

8,240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:14 2020 Page 1

ID: xKFGJ7evN77xhJE66FFHnCzvA57-cZNYuZKvRVVwpullchHf?krKgpXJo6SfhxyMsZAN2F

12-2-11
12-2-11
06/09/2020



LOADING (psf)		SPACING-		CSI.		DEFL.		I/defl		L/d		PLATES	GRIP
TCLL	16.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999		MT20	197/144
(Ground Snow=20.0)		Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999			
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	-0.00	5	n/a	n/a			
BCLL	0.0	Code IRC2018/TPI2014		Matrix-S								Weight: 38 lb	FT = 20%
BCDL	10.0												

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	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		
OTHERS	2x4 SPF No.2		

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)

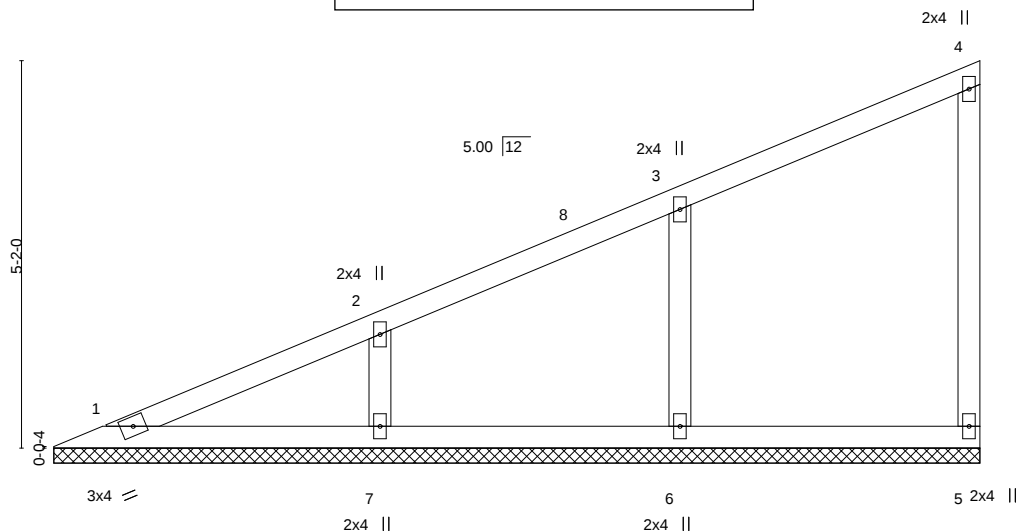
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 3-6=-314/73

- 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

Job 2339007	Truss V4	Truss Type Valley	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI ID:xKFGJ7evN77xhJE66FFHnCzvA57-4mxx6vL7codnR2KU9PpuXyNUSDtZXhoxLhVvIzAN2E 12-4-13 6/9/2020		Summit/5 Hawthorn Rldge I41495616 Job Reference (optional)
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8,240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:15 2020 Page 1 12-4-13		



Scale = 1:30.7

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 16.0 (Ground Snow=20.0)	2-0-0 Plate Grip DOL 1.15	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: 39 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 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-

- 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

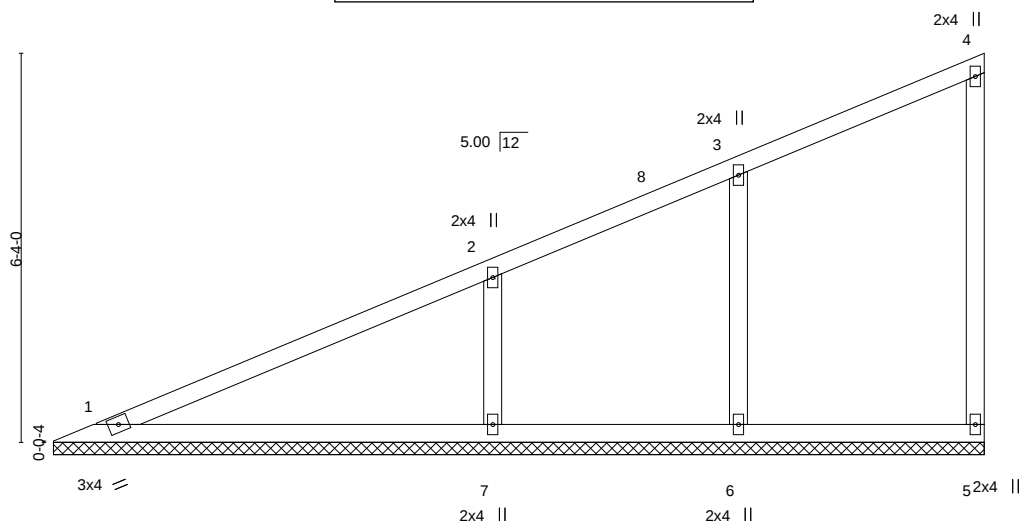
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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 V5	Truss Type Valley	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 05/09/2020		Summit/5 Hawthorn Rldge I41495617 Job Reference (optional) 8,240 s Mar 9 2020 MiTek Industries, Inc. Tue Jun 2 09:00:16 2020 Page 1 ID:xKFGJ7evN?7xhJE66FFHnCzvA57-YyVJJFLIN6le2Bvgj6K749wc7dAwG?Uy9?Q2RkzAN2D
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					



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.

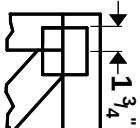
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



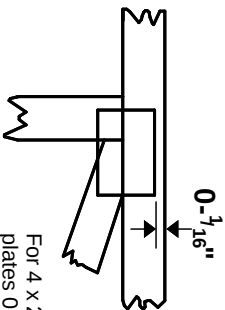
16023 Swingley Ridge Rd
 Chesterfield, MO 63017

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.

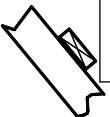
Plate location details available in **MiTek 20120** software or upon request.

PLATE SIZE



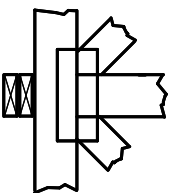
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



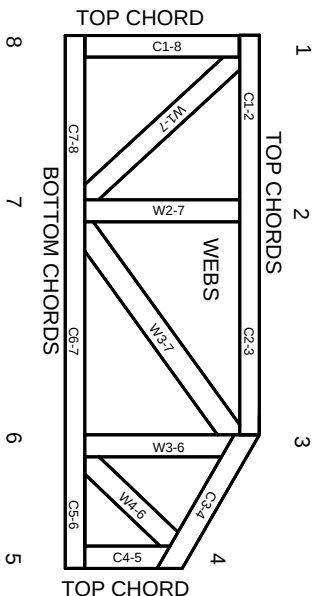
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI.1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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