



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

Re: 3008827  
C&H/154 Cobey Creek

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: I49242007 thru I49242032

My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: Engineering 001193



December 14, 2021

Fox, Steve, Engineer

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242007
3008827	A1	Common Supported Gable	1	1	Job Reference (optional)	

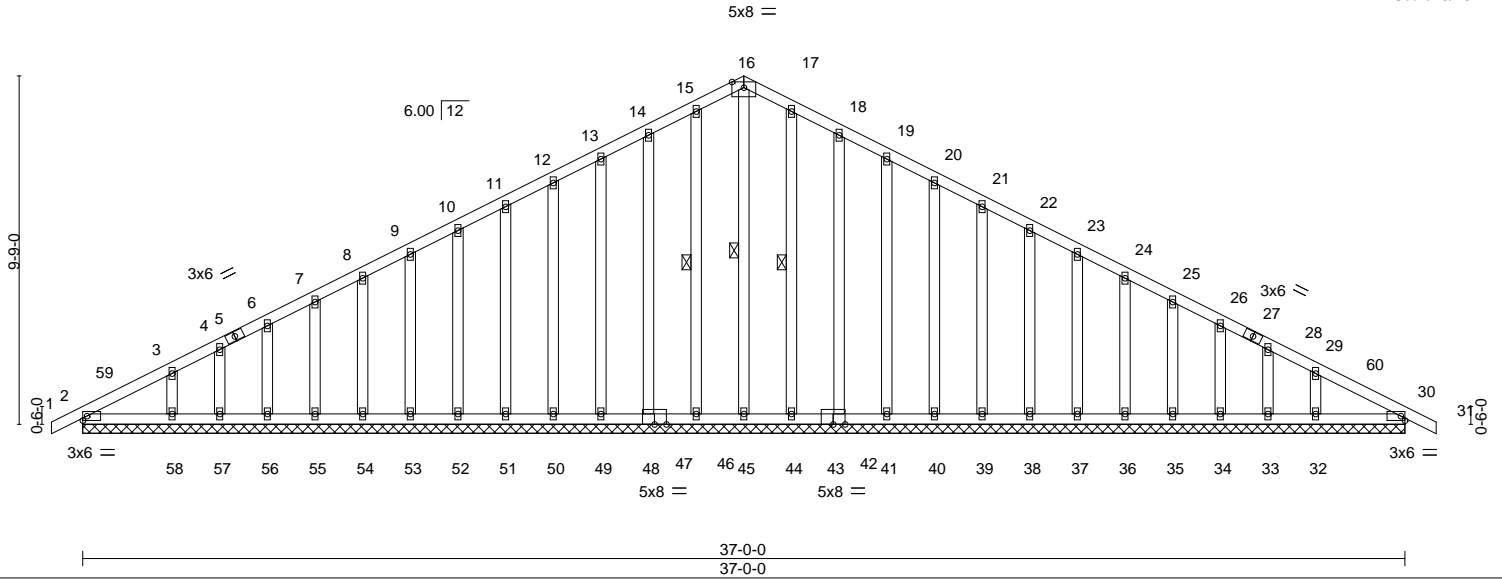
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:24 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7IxdzajL2-\_e6efF6k4BfKMO53VqLZUxAd1JkwEfxovK9Tyyv9Fkb

-0-10-8 18-6-0 37-0-0 37-10-8  
0-10-8 18-6-0 18-6-0 0-10-8

Scale: 3/16"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	0.00	30	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	30	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.01	30	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 236 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 16-45, 15-46, 17-44

#### REACTIONS.

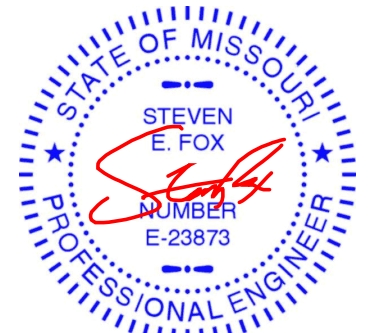
All bearings 37-0-0.  
(lb) - Max Horz 2=171(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32  
Max Grav All reactions 250 lb or less at joint(s) 2, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 30

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

TOP CHORD 13-14=-91/252, 14-15=-105/290, 15-16=-112/310, 16-17=-112/310, 17-18=-105/290, 18-19=-91/252

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 18-6-0, Corner(3R) 18-6-0 to 21-6-0, Exterior(2N) 21-6-0 to 37-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 44, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32.
- 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.



December 14, 2021

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

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 3008827	Truss A2	Truss Type Common	Qty 7	Ply 1	C&H/154 Cobey Creek 149242008
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Builders FirstSource (Valley Center),

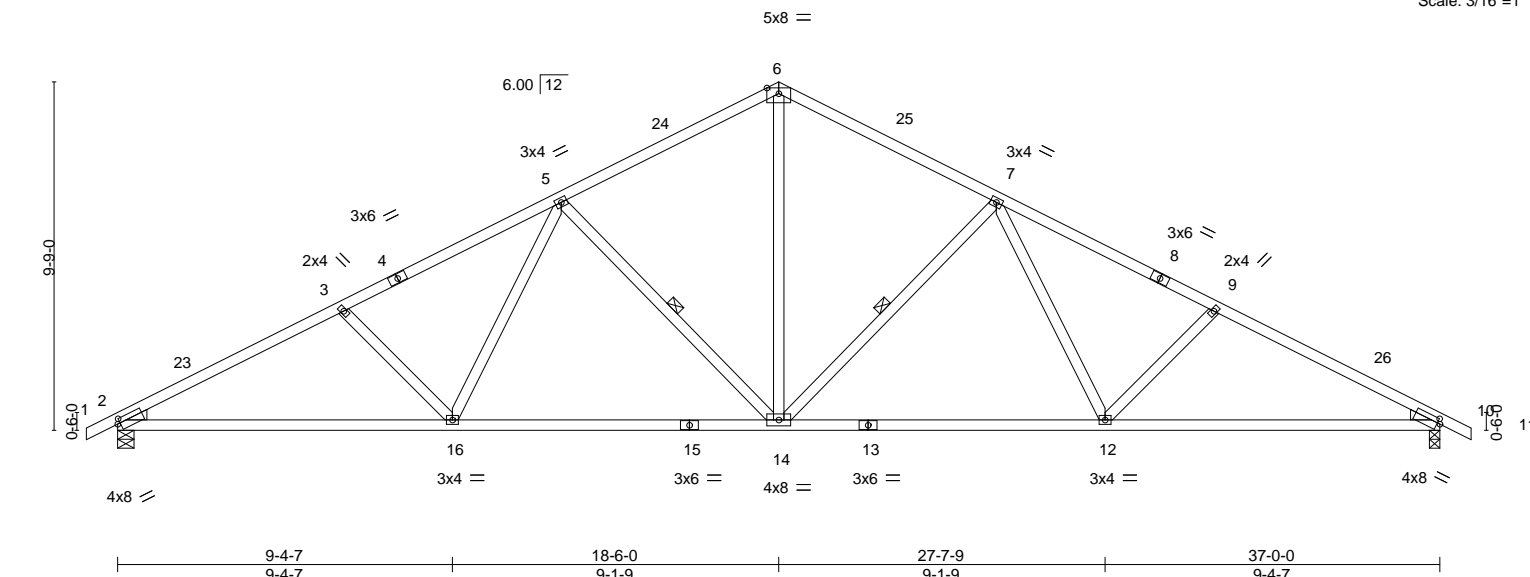
Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:26 2021 Page 1

ID: N2YErRAi\_NDqpoFerk7IxdzajL2-w0EO4x8\_cpw2bhFSdFO1ZMFtq7DoiU05MeeZ0oy9FkZ

-0-10-8	6-3-14	12-4-15	18-6-0	24-7-1	30-8-2	37-0-0	37-10-8
0-10-8	6-3-14	6-1-1	6-1-1	6-1-1	6-1-1	6-3-14	0-10-8

Scale: 3/16"=1'



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.50	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.85	Vert(LL) -0.20 12-14 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.33	Vert(CT) -0.43 14-16 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.14 10 n/a n/a		
	Code IRC2018/TPI2014			Weight: 149 lb	FT = 20%

#### LUMBER-

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

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

#### BRACING-

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

#### REACTIONS.

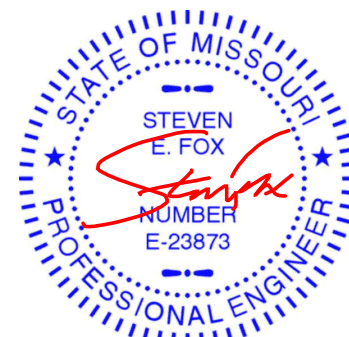
(size) 2=0-5-8, 10=0-3-8  
Max Horz 2=171(LC 12)  
Max Uplift 2=-295(LC 12), 10=-295(LC 13)  
Max Grav 2=1726(LC 1), 10=1726(LC 1)

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

TOP CHORD 2-3=-3046/509, 3-5=-2750/479, 5-6=-1958/418, 6-7=-1958/418, 7-9=-2750/479, 9-10=-3046/510  
BOT CHORD 2-16=-530/2632, 14-16=-343/2170, 12-14=-220/2170, 10-12=-360/2632  
WEBS 6-14=-209/1262, 7-14=-758/297, 7-12=-87/500, 9-12=-380/217, 5-14=-758/296, 5-16=-87/500, 3-16=-380/217

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 18-6-0, Exterior(2R) 18-6-0 to 21-6-0, Interior(1) 21-6-0 to 37-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=295, 10=295.
- 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.



December 14, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242009
3008827	A3	Roof Special	6	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:N2YErRAi\_NDqpoFerk7lxdzajL2-ODomHG8cN62vDrqeAyyvG5Zo?8XbCRyuEblO7Yey9FkY

0-3-8 3-11-12 10-0-13 16-1-14 22-5-12 23-4-4  
0-3-8 3-8-4 6-1-1 6-1-1 6-3-14 0-10-8

Scale = 1:55.8

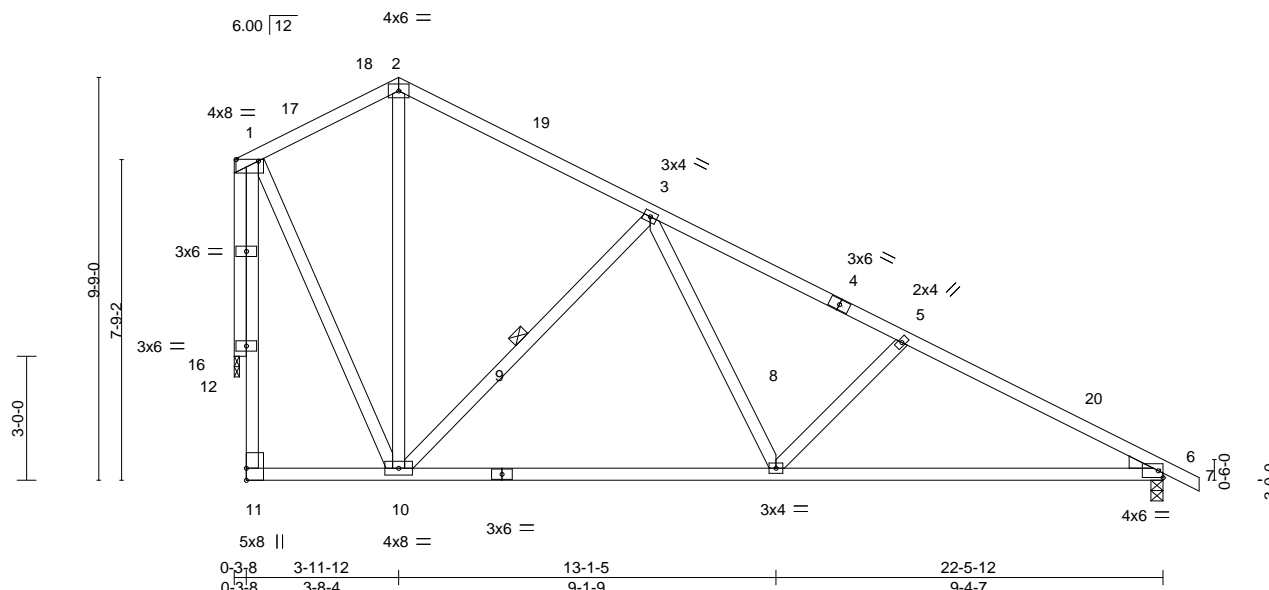


Plate Offsets (X,Y)--	[1:0-6-8,0-0-8]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.66	Vert(LL)	-0.12 8-15	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.26 8-10	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.29 6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 112 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2  
WEDGE  
Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 3-10

#### REACTIONS.

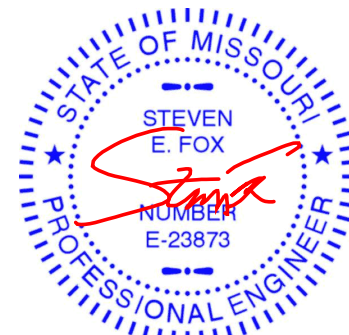
(size) 6=0-3-8, 16=0-1-8  
Max Horz 16=-295(LC 13)  
Max Uplift 6=-219(LC 13), 16=-189(LC 13)  
Max Grav 6=1071(LC 1), 16=974(LC 1)

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

TOP CHORD 1-2=-438/256, 2-3=-515/220, 3-5=-1362/315, 5-6=-1669/347  
BOT CHORD 8-10=-54/901, 6-8=-216/1414  
WEBS 1-10=-125/749, 3-10=-778/299, 3-8=-84/546, 5-8=-406/221, 1-16=-977/217

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 3-11-12, Exterior(2R) 3-11-12 to 6-11-12, Interior(1) 6-11-12 to 23-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 16 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 at joint(s) 16.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=219, 16=189.
- 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.



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 3008827	Truss A3A	Truss Type Roof Special	Qty 1	Ply 1	C&H/154 Cobey Creek 149242010
Job Reference (optional)					

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

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ID:N2YErRAi\_NDqpoFerk7lxdzajL2-sPM9Vc9E8QAmr?PqkgQVenLBLwy2AFaNgY7g5gy9FkX

0-3-8 3-3-8 3-11-12 5-11-4 11-6-13 14-2-13 16-10-14 22-5-12 23-4-4  
0-3-8 3-0-0 0-8-4 1-11-8 5-7-9 2-8-0 2-8-0 5-6-14 0-10-8

Scale = 1:55.8

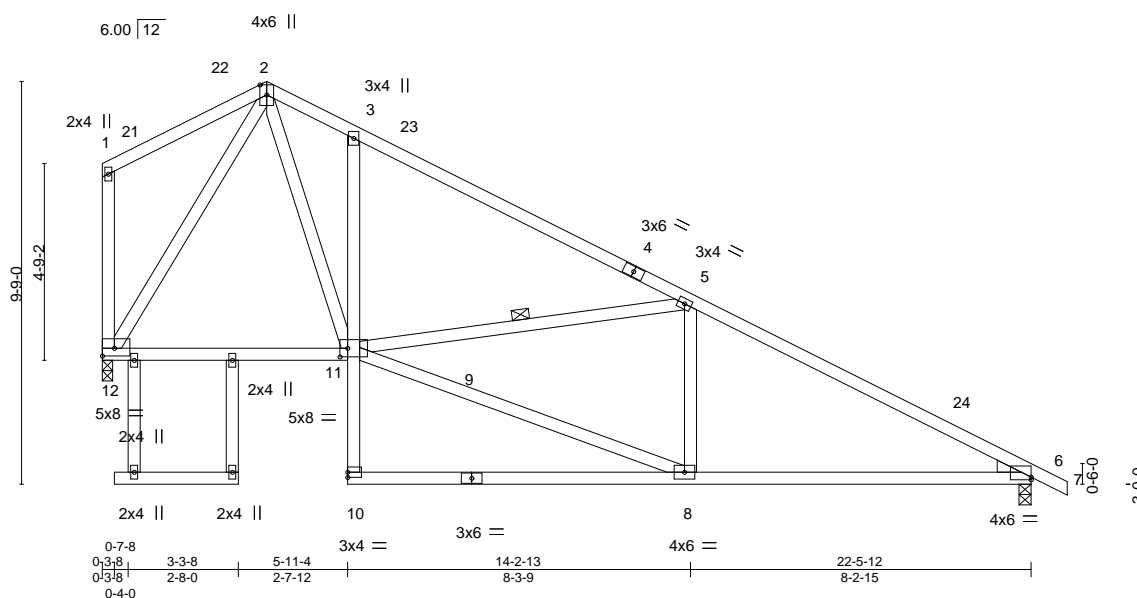


Plate Offsets (X,Y)--		[6:0-0-0,0-0-13], [11:0-2-4,0-2-8], [12:Edge,0-2-4]					
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.63	Vert(LL)	-0.11 8-10	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.60	Vert(CT)	-0.23 8-10	>999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.90	Horz(CT)	0.02 6	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
						Weight: 119 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2  
WEDGE  
Right: 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-11

#### REACTIONS.

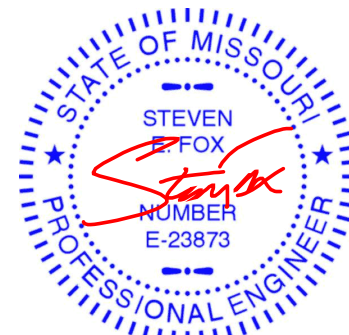
(size) 12=0-3-0, 6=0-3-8  
Max Horz 12=291(LC 8)  
Max Uplift 12=174(LC 13), 6=234(LC 13)  
Max Grav 12=1004(LC 1), 6=1067(LC 1)

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

TOP CHORD 2-3=-1013/335, 3-5=-1103/252, 5-6=-1613/350  
BOT CHORD 11-12=0/500, 3-11=-422/231, 6-8=-198/1341  
WEBS 5-8=-297/139, 8-11=-223/1410, 5-11=-500/308, 2-12=-917/238, 2-11=-315/1159

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-11-12, Exterior(2R) 3-11-12 to 6-11-12, Interior(1) 6-11-12 to 23-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=174, 6=234.
- 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.



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017





Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek
3008827	A4	ROOF SPECIAL GIRDER	1	<b>2</b>	I49242011
Job Reference (optional)					

- NOTES-**
- 11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 12-0-12 to connect truss(es) to front face of bottom chord.
  - 12) Fill all nail holes where hanger is in contact with lumber.
  - 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 588 lb down and 169 lb up at 14-0-12, and 3749 lb down and 725 lb up at 14-7-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-70, 3-5=-70, 5-10=-70, 17-18=-20

Concentrated Loads (lb)

Vert: 14=-3749(F) 16=-588(F) 21=-588(F) 22=-588(F) 23=-588(F) 24=-588(F) 25=-588(F) 26=-588(F)

Job 3008827	Truss A5	Truss Type Common	Qty 3	Ply 1	C&H/154 Cobey Creek 149242012
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:N2YEIRAI\_NDqpoFerk7lxdzajL2-IAbfK\_CiCfGbjczVURodVvLYGE6CVZ5uESy9FkT

6-2-6	12-3-7	18-4-8	24-5-9	30-6-10	36-10-8	37-9-0
6-2-6	6-1-1	6-1-1	6-1-1	6-1-1	6-3-14	0-10-8

Scale: 3/16"=1'

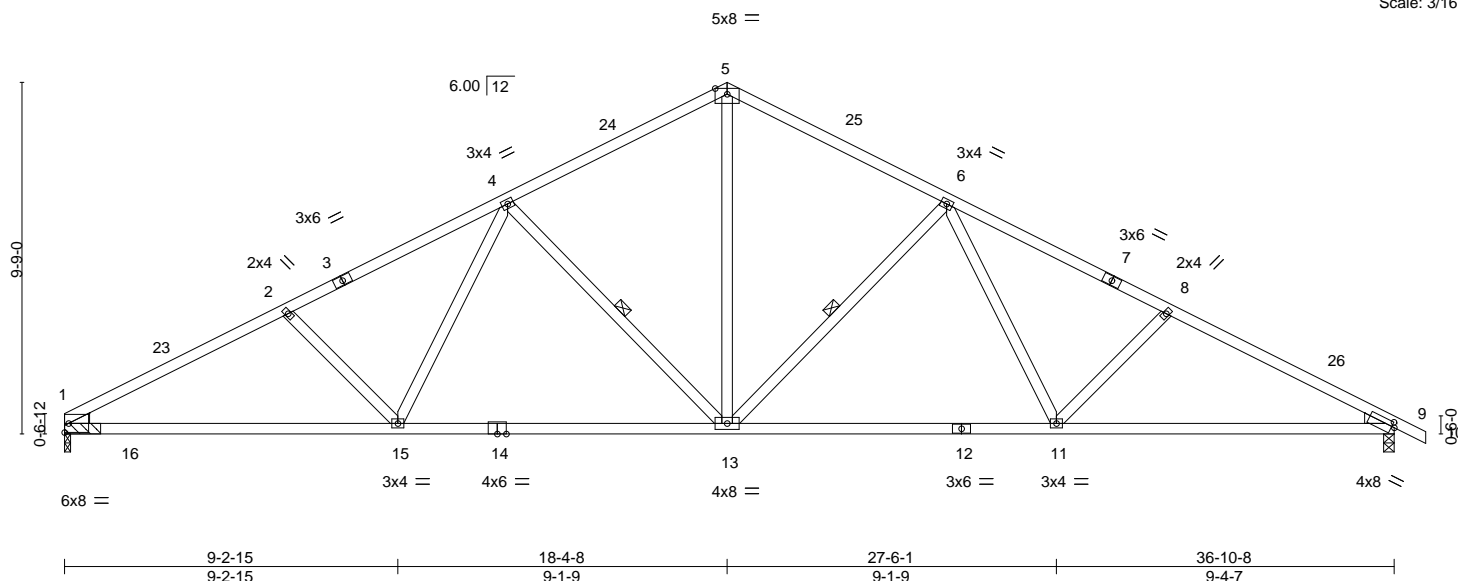


Plate Offsets (X, Y)--		[9:0-0-15, 0-1-9]		[9:0-0-15, 0-1-9]		[9:0-0-15, 0-1-9]		[9:0-0-15, 0-1-9]		[9:0-0-15, 0-1-9]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.20	13-15	>999	240	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.44	13-15	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.14	9	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
										Weight: 148 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 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 6-13, 4-13

#### REACTIONS.

(size) 1=(0-2-0 + bearing block) (req. 0-2-10), 9=0-3-8  
Max Horz 1=180(LC 13)  
Max Uplift 1=273(LC 12), 9=294(LC 13)  
Max Grav 1=1659(LC 1), 9=1721(LC 1)

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

TOP CHORD 1-2=-2981/502, 2-4=-2711/474, 4-5=-1948/419, 5-6=-1948/417, 6-8=-2739/478, 8-9=-3035/509  
BOT CHORD 1-15=-521/2581, 13-15=-341/2151, 11-13=-220/2160, 9-11=-359/2623  
WEBS 5-13=-209/1254, 6-13=-758/297, 6-11=-87/500, 8-11=-380/217, 4-13=-747/296, 4-15=-83/476, 2-15=-357/208

#### NOTES-

- 1) 2x4 SPF No.2 bearing block 12" long at jt. 1 attached to front face with 2 rows of 10d (0.131"x3") nails spaced 3" o.c. 8 Total fasteners. Bearing is assumed to be SPF No.2.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-4-8, Exterior(2R) 18-4-8 to 21-4-8, Interior(1) 21-4-8 to 37-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=273, 9=294.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242013
3008827	A6	Common Supported Gable	1	1	Job Reference (optional)	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:35 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7lxdzajL2-9lHoz?FdUa2m4RBee28QF7WFIUTJdfPRXKYqmy9FkQ

18-4-8 36-10-8 37-9-0  
18-4-8 18-6-0 0-10-8

Scale: 3/16"=1'

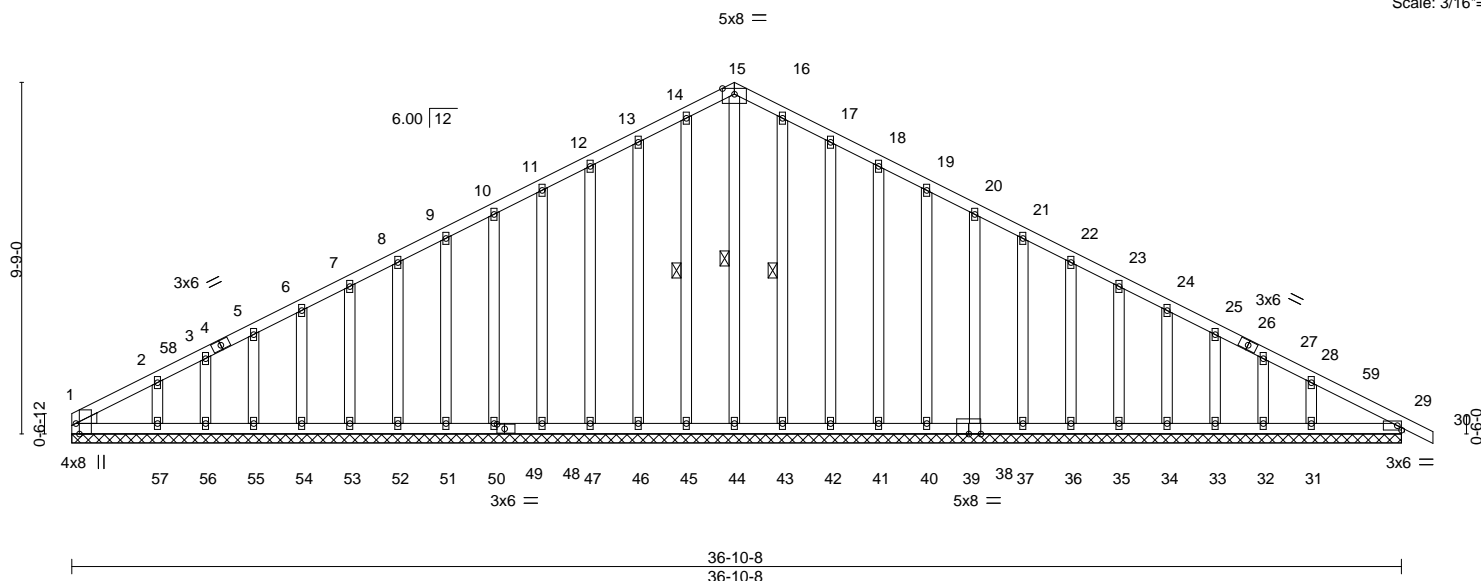


Plate Offsets (X,Y)--		[1:0-3-8,Edge], [49:0-2-8,0-1-8]		36-10-8		36-10-8			
LOADING (psf)		SPACING- 2-0-0		CSI.	DEFL. in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL 1.15		TC 0.08	Vert(LL) 0.00 29	n/r	120	MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.04	Vert(CT) 0.00 29	n/r	120		
BCLL 0.0		Rep Stress Incr YES		WB 0.11	Horz(CT) 0.01 29	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S					
								Weight: 235 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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 15-44, 14-45, 16-43

#### REACTIONS.

All bearings 36-10-8.  
(lb) - Max Horz 1=175(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31  
Max Grav All reactions 250 lb or less at joint(s) 1, 44, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31, 29

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

TOP CHORD 12-13=-91/252, 13-14=-105/290, 14-15=-112/310, 15-16=-112/310, 16-17=-105/290, 17-18=-91/252

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 18-4-8, Corner(3R) 18-4-8 to 21-4-8, Exterior(2N) 21-4-8 to 37-9-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 45, 46, 47, 48, 50, 51, 52, 53, 54, 55, 56, 57, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31.
- 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.



December 14, 2021

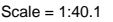
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Dec 14 14:05:30 2021 Page 1  
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<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28	Vert(LL)	0.13 19-20	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.17 19-20	>990	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.10 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 64 lb	FT = 20%

<b>BRACING-</b>	
TOP CHORD	Structural wood sheathing directly applied or 5-3-11 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

**TOP CHORD**  
2-3=476/316, 3-29=1119/186, 4-29=1054/190, 4-5=1060/251, 5-6=1034/298,  
6-7=985/343, 7-8=985/345, 8-9=1034/300, 9-10=1060/252, 10-30=1081/194,  
11-30=1119/190, 11-12=457/308

**BOT CHORD**  
2-20=55/883, 19-20=76/914, 18-19=91/949, 17-18=106/968, 16-17=82/943,  
15-16=78/937, 14-15=72/909, 12-14=67/894

**WEBS**  
7-17=251/996

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-10-0, Corner(3R) 6-10-0 to 9-10-0, Exterior(2N) 9-10-0 to 14-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Bearing at joint(s) 2, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 2 and 104 lb uplift at joint 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.



December 14, 2021



**WARNING –** verify design parameters and **READ NOTES ON THIS AND INCLUDED WITH REFERENCE TO AISC M14-13 161, JF 15/2020 BY ONE USER.** Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Cran Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

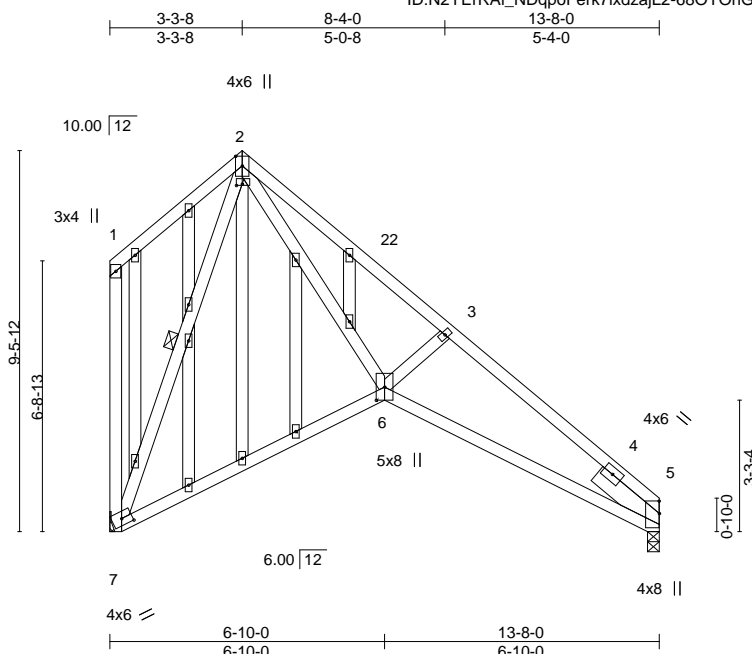
Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242015
3008827	B2	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:37 2021 Page 1

ID: N2YErRAi\_NDqpoFerk7IxdzajL2-68OYOhGt0BIUQObZm34cVgCo9Z5vnV?iurpfvy9FkO



Scale = 1:57.3

Plate Offsets (X,Y)--										[2:0-1-12,0-0-7], [5:0-3-11,0-0-1], [6:0-3-15,0-2-8], [7:0-3-1,0-2-0]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC	0.31	Vert(LL)	-0.08	6-7	>999	240				MT20	197/144		
TCDL	10.0	Lumber DOL		1.15		BC	0.36	Vert(CT)	-0.16	6-7	>991	180							
BCLL	0.0	Rep Stress Incr		YES		WB	0.25	Horz(CT)	0.10	5	n/a	n/a							
BCDL	10.0	Code IRC2018/TPI2014				Matrix-AS										Weight: 99 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  
 SLIDER Right 2x6 SPF No.2 2-0-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 2-7

#### REACTIONS.

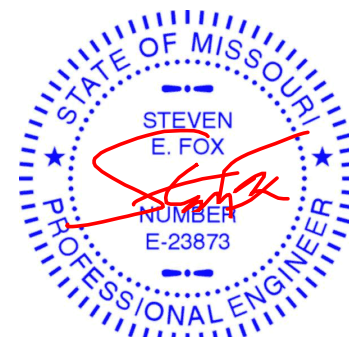
(size) 5=0-3-8, 7=Mechanical  
 Max Horz 7=-324(LC 10)  
 Max Uplift 5=-72(LC 13), 7=-149(LC 13)  
 Max Grav 5=608(LC 1), 7=608(LC 1)

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

TOP CHORD 1-2=-229/258, 2-3=-1005/269, 3-5=-1211/253  
 BOT CHORD 6-7=-129/369, 5-6=-119/979  
 WEBS 2-6=-119/942, 3-6=-292/258, 2-7=-572/154

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-3-8, Exterior(2R) 3-3-8 to 6-3-8, Interior(1) 6-3-8 to 13-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=149.
- 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.



December 14, 2021

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 Chesterfield, MO 63017

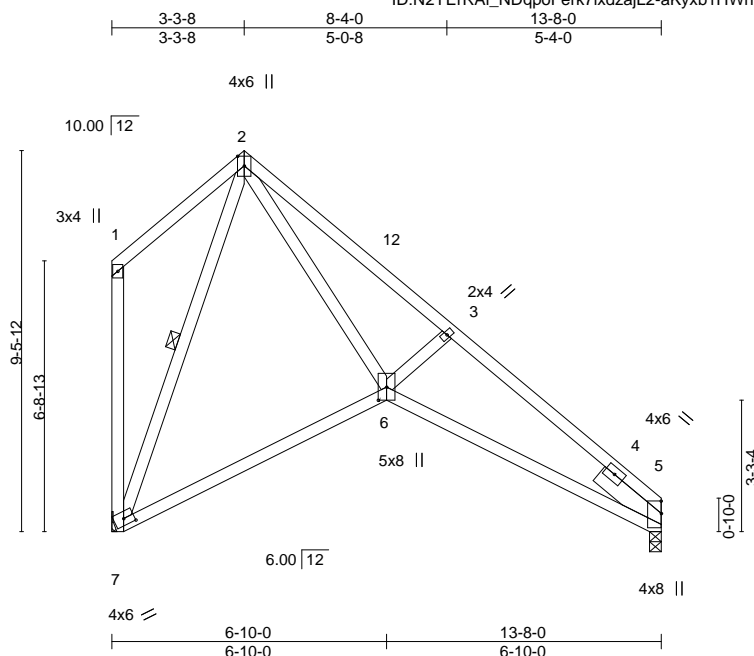
Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242016
3008827	B3	Scissor	7	1		
Job Reference (optional)						

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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Scale = 1:57.3

Plate Offsets (X,Y)--												
[5:0-3-11,0-0-1], [6:0-3-15,0-2-8], [7:0-3-1,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	-0.08	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.16	6-7	>991	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.25	Horz(CT)	0.10	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 70 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Right 2x6 SPF No.2 2-0-0

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 2-7

#### REACTIONS.

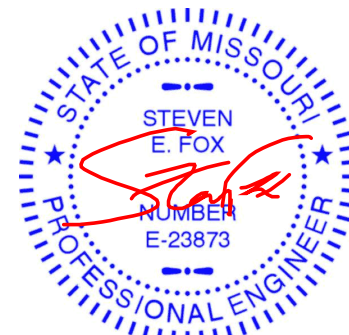
(size) 5=0-3-8, 7=Mechanical  
 Max Horz 7=-324(LC 10)  
 Max Uplift 5=-72(LC 13), 7=-149(LC 13)  
 Max Grav 5=608(LC 1), 7=608(LC 1)

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

TOP CHORD 1-2=-229/258, 2-3=-1005/269, 3-5=-1211/253  
 BOT CHORD 6-7=-129/369, 5-6=-119/979  
 WEBS 2-6=-119/942, 3-6=-292/258, 2-7=-572/154

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-3-8, Exterior(2R) 3-3-8 to 6-3-8, Interior(1) 6-3-8 to 13-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 7=149.
- 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.



December 14, 2021

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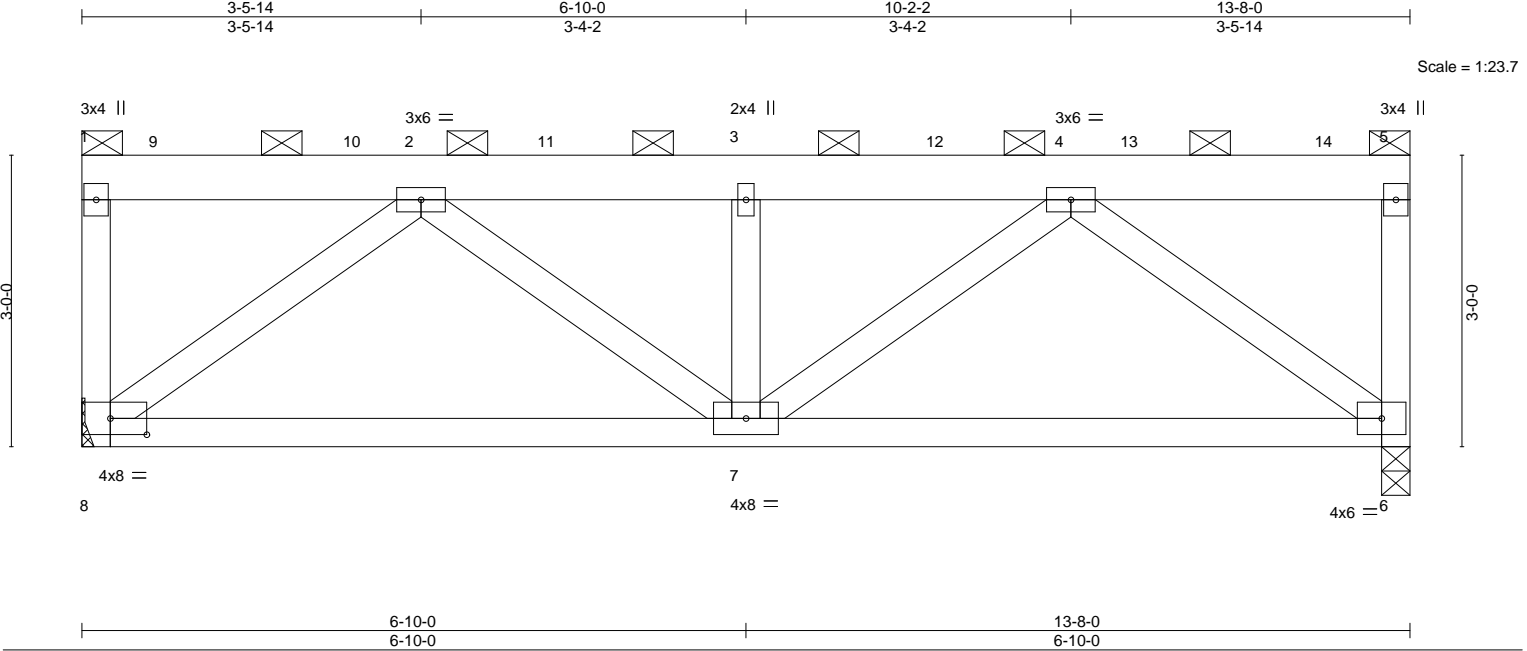
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242017
3008827	B4	FLAT	1	2	Job Reference (optional)	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:39 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7IxdzajL2-2XWJoNi8YoYCFhlytT64a5l9cMm3FM8?M9ll\_Yy9FkM



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) -0.04 7 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.45	Vert(CT) -0.08 7 >999 180		
BCLL 0.0	Rep Stress Incr YES	WB 0.40	Horz(CT) 0.04 6 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS			
				Weight: 131 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-5, except end verticals.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 8=Mechanical, 6=0-3-8  
Max Horz 8=100(LC 29)  
Max Uplift 8=705(LC 8), 6=698(LC 9)  
Max Grav 8=3770(LC 1), 6=3814(LC 1)

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

TOP CHORD 1-8=-909/217, 2-3=-4771/1057, 3-4=-4771/1057, 5-6=-955/213  
BOT CHORD 7-8=-913/3642, 6-7=-876/3641  
WEBS 3-7=-1652/416, 2-8=-4514/1074, 2-7=-297/1435, 4-7=-304/1436, 4-6=-4511/1068

#### NOTES-

- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=705, 6=698.
- 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 914 lb down and 217 lb up at 0-10-4, 904 lb down and 222 lb up at 2-10-4, 904 lb down and 222 lb up at 4-10-4, 904 lb down and 222 lb up at 6-10-4, 904 lb down and 222 lb up at 8-10-4, and 904 lb down and 222 lb up at 10-10-4, and 945 lb down and 202 lb up at 12-10-4 on top chord. Continued design selection of such connection device(s) is the responsibility of others.



December 14, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek
3008827	B4	FLAT	1	2	I49242017
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:39 2021 Page 2  
ID:N2YErRAi\_NDqpoFerk7lxdzajL2-2XWJoNi8YoYCfhlytT64a5l9cMm3FM8?M9ll\_Yy9FkM

**LOAD CASE(S)** Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-70, 6-8=-20  
Concentrated Loads (lb)  
Vert: 3=-904 9=-914 10=-904 11=-904 12=-904 13=-904 14=-945

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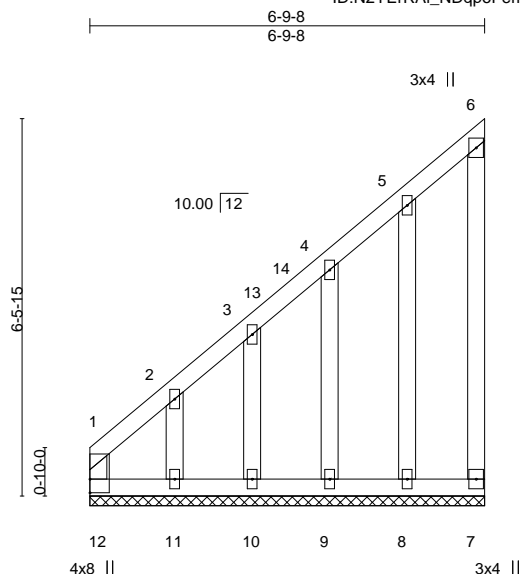


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 3008827	Truss B5	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	C&H/154 Cobey Creek I49242018
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:40 2021 Page 1  
ID:N2YErRAi\_NDqpoFerk7LxdzajL2-Wj4h0JlmJ6g3HrK8RBeJ7JqJym8p\_uT8ap1JW\_y9FkL



Scale = 1:39.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.22	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R						Weight: 40 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 6-9-8.

(lb) - Max Horz 12=239(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 7, 8, 9, 10 except 12=125(LC 10), 11=185(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 12, 7, 8, 9, 10, 11

#### FORCES.

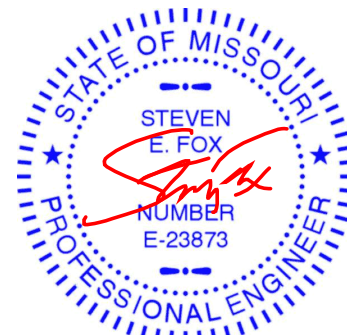
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-12=461/276, 1-2=657/416, 2-3=458/303, 3-4=382/269, 4-5=267/224

WEBS 2-11=203/296

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 6-7-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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) 7, 8, 9, 10 except (jt=lb) 12=125, 11=185.
- 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.



December 14, 2021

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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

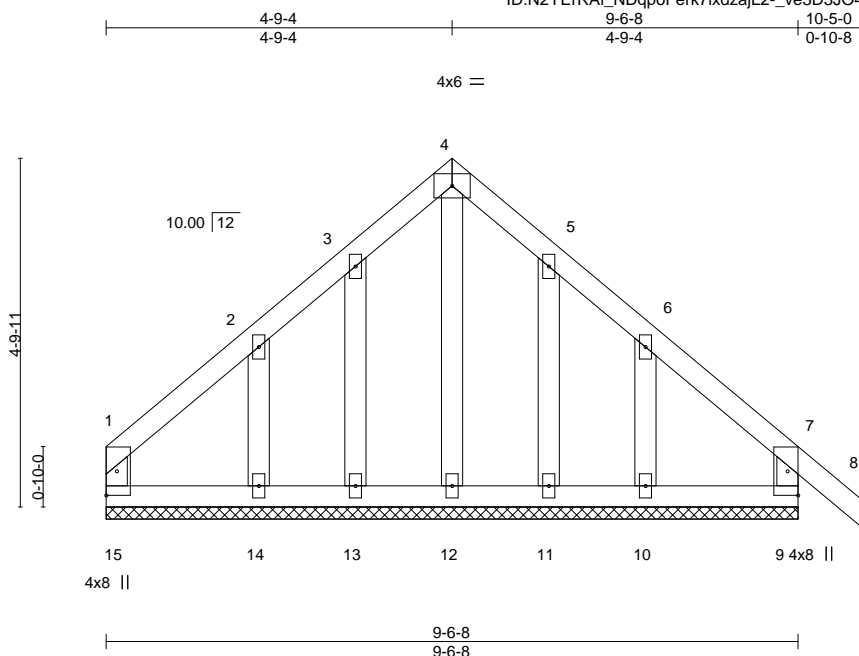
Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242019
3008827	C1	Common Supported Gable	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:41 2021 Page 1

ID:N2YERai\_NDqpoFerk7lxdzajL2-\_ve3D3JO4Qovu?vK?u9YgWNXSAXriLalpTns2Qy9FkK



Scale: 3/8"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	8	n/r	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	8	n/r		
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 44 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 9-6-8.

(lb) - Max Horz 15=-139(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 15, 9, 13, 11 except 14=-124(LC 12), 10=-118(LC 13)

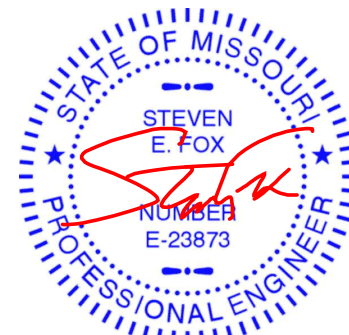
Max Grav All reactions 250 lb or less at joint(s) 15, 9, 12, 13, 14, 11, 10

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

TOP CHORD 3-4=-129/253, 4-5=-129/253

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 3-5-4, Exterior(2N) 3-5-4 to 4-9-4, Corner(3R) 4-9-4 to 7-9-4, Exterior(2N) 7-9-4 to 10-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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) 15, 9, 13, 11 except (jt=lb) 14=124, 10=118.
- 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.



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

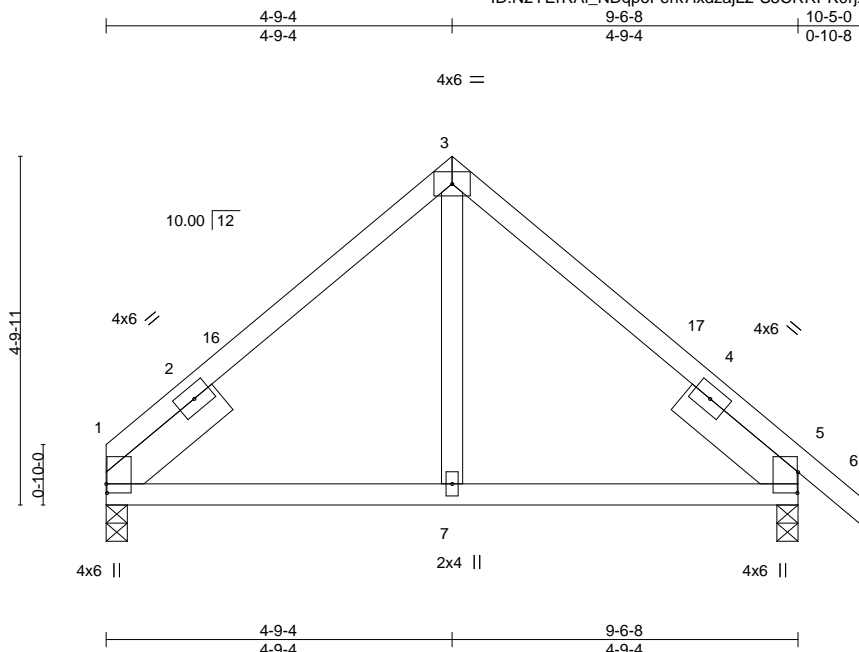
Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242020
3008827	C2	Common	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:42 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7lxdzajL2-S5CRRPK0rjxmW9UXZcgnCkwggarqRpPR27WQaty9FkJ



Scale: 3/8"=1'

Plate Offsets (X,Y)--		[1:0-1-8,0-0-2], [5:0-3-7,0-0-2]	
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0
TCLL 25.0		Plate Grip DOL	1.15
TCDL 10.0		Lumber DOL	1.15
BCLL 0.0		Rep Stress Incr	YES
BCDL 10.0		Code	IRC2018/TPI2014
		<b>CSI.</b>	
		TC 0.19	
		BC 0.19	
		WB 0.04	
		Matrix-AS	
		<b>DEFL.</b>	in (loc) l/defl L/d
		Vert(LL)	-0.02 7-10 >999 240
		Vert(CT)	-0.03 7-10 >999 180
		Horz(CT)	0.01 1 n/a n/a
		<b>PLATES</b>	<b>GRIP</b>
		MT20	197/144
		Weight: 39 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x6 SPF No.2 2-0-0

#### BRACING-

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

#### REACTIONS.

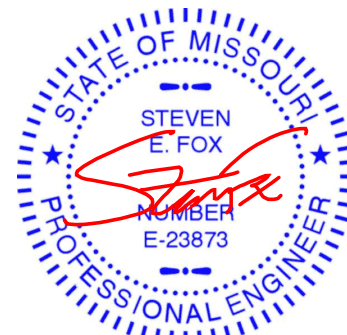
(size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=-116(LC 10)  
 Max Uplift 1=-58(LC 12), 5=-79(LC 13)  
 Max Grav 1=427(LC 1), 5=493(LC 1)

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

TOP CHORD 1-3=-378/190, 3-5=-380/190  
 BOT CHORD 1-7=-14/277, 5-7=-14/277

#### NOTES-

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



December 14, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

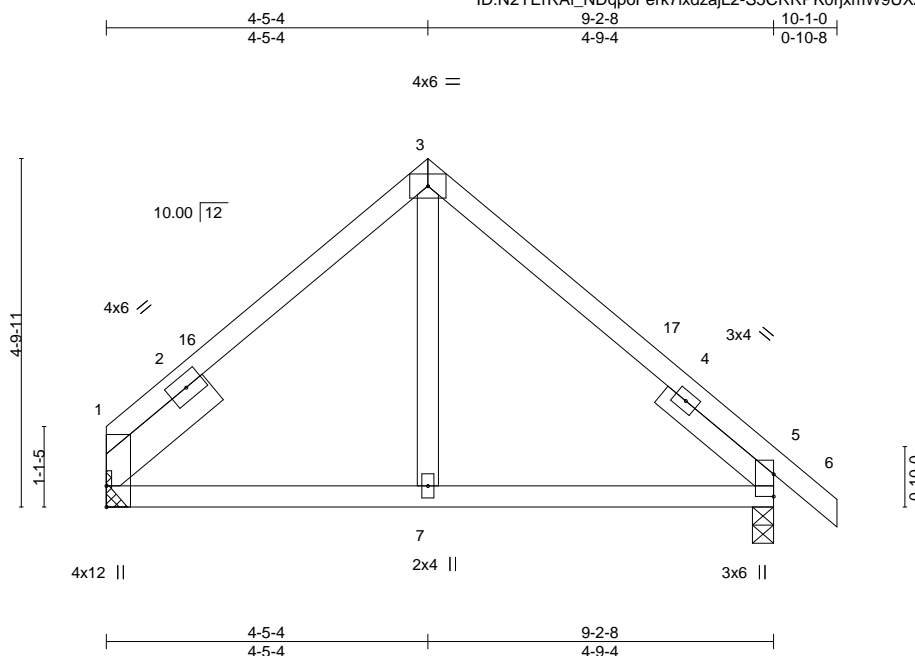
Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	I49242021
3008827	C3	Common	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:42 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7lxdzajL2-S5CRRPK0rjxmW9UXZcgnCkwwXar6RpRR27WQaty9FkJ



Scale: 3/8"=1'

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.02 7-14	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.17	Vert(CT)	-0.03 7-14	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.01 1	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 37 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x6 SPF No.2 2-0-0, Right 2x4 SPF No.2 2-0-0

#### BRACING-

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

#### REACTIONS.

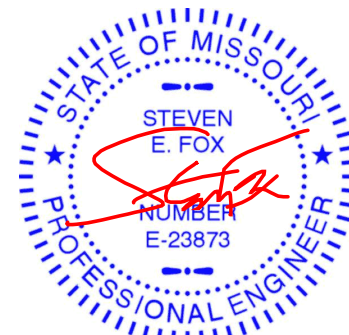
(size) 1=Mechanical, 5=0-3-8  
 Max Horz 5=116(LC 8)  
 Max Uplift 1=54(LC 12), 5=76(LC 13)  
 Max Grav 1=411(LC 1), 5=479(LC 1)

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

TOP CHORD 1-3=-375/186, 3-5=-350/180

#### NOTES-

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



December 14, 2021

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 3008827	Truss D1	Truss Type GABLE	Qty 1	Ply 1	C&H/154 Cobey Creek Job Reference (optional)	149242022
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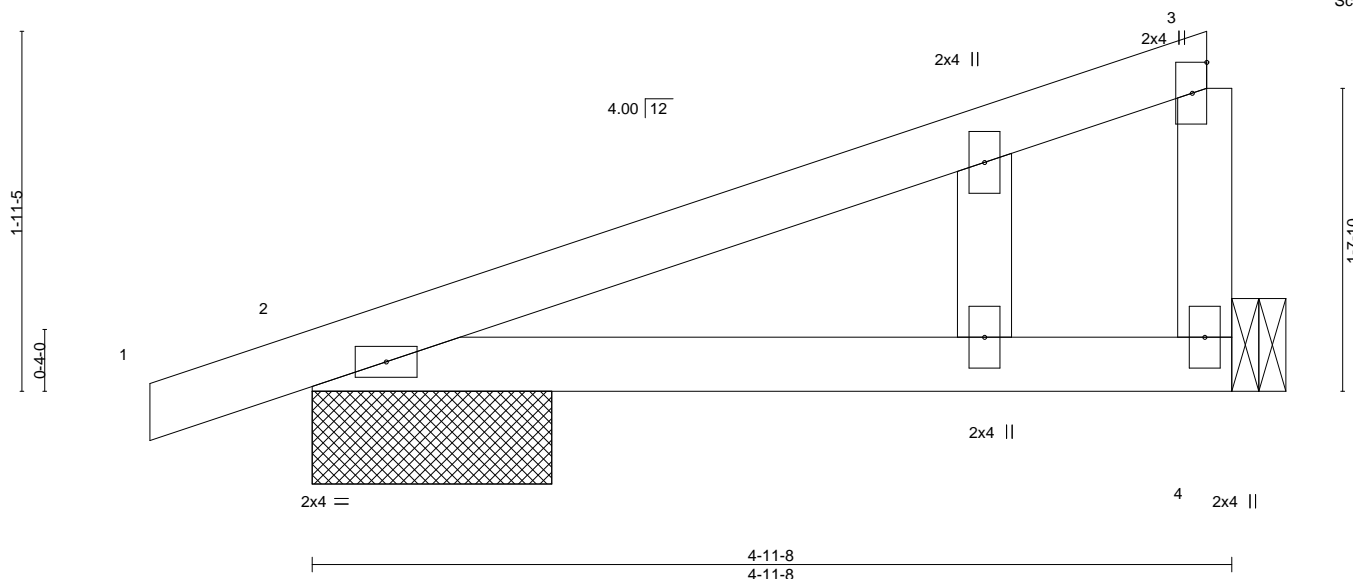
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:43 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7IxdzajL2-wlmqelLec13d8J2j6JB0lxSoazAEAGLbHnGz7Jy9Fkl



Scale = 1:12.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.03	2-4	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.06	2-4	>898	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 15 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

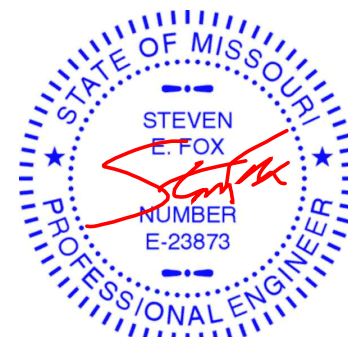
#### REACTIONS.

(size) 4=Mechanical, 2=1-3-8  
Max Horz 2=78(LC 9)  
Max Uplift 4=-52(LC 12), 2=-85(LC 8)  
Max Grav 4=209(LC 1), 2=283(LC 1)

**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=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 4-9-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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



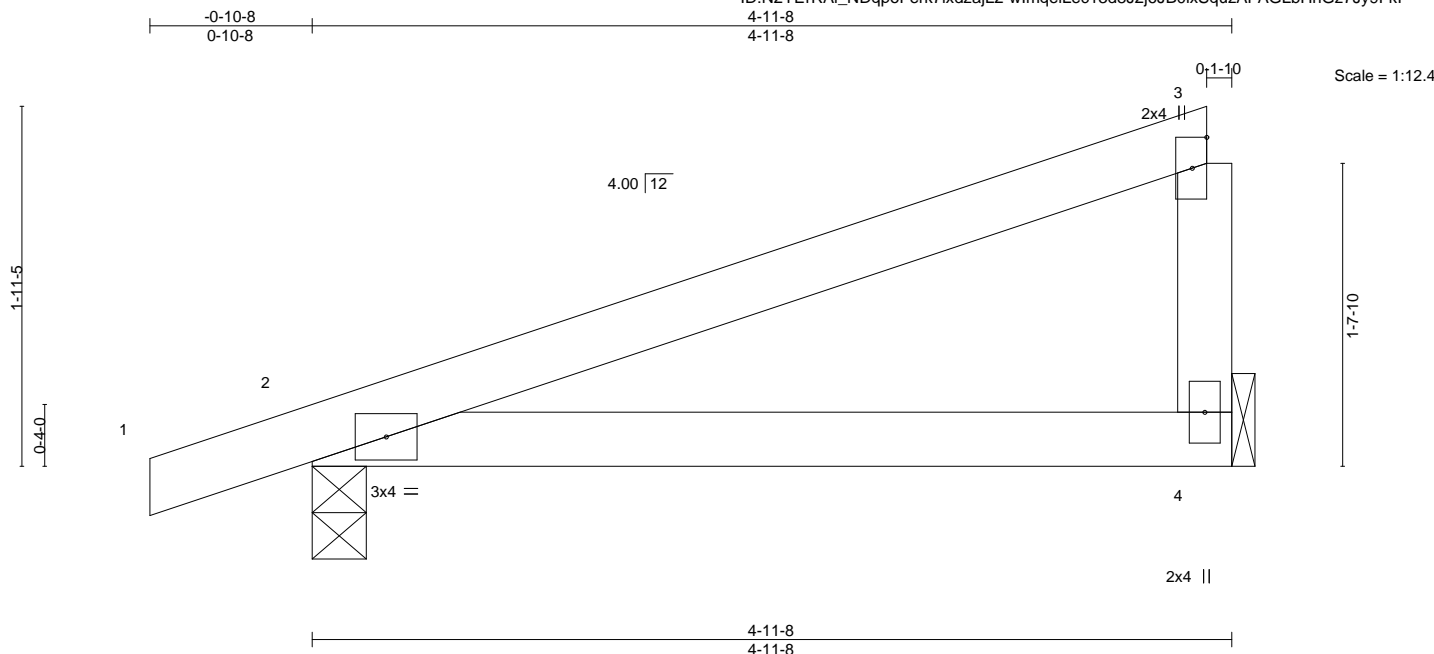
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242023
3008827	D2	Monopitch	3	1	Job Reference (optional)	

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

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:43 2021 Page 1

ID: N2YErRAi\_NDqpoFerk7ldzajL2-wlmqelLec13d8J2j6JB0lxSquzAFAGLbHnGz7Jy9Fkl



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.03	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	-0.06	4-7	>990	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 14 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8  
Max Horz 2=79(LC 11)  
Max Uplift 4=53(LC 12), 2=85(LC 8)  
Max Grav 4=211(LC 1), 2=283(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



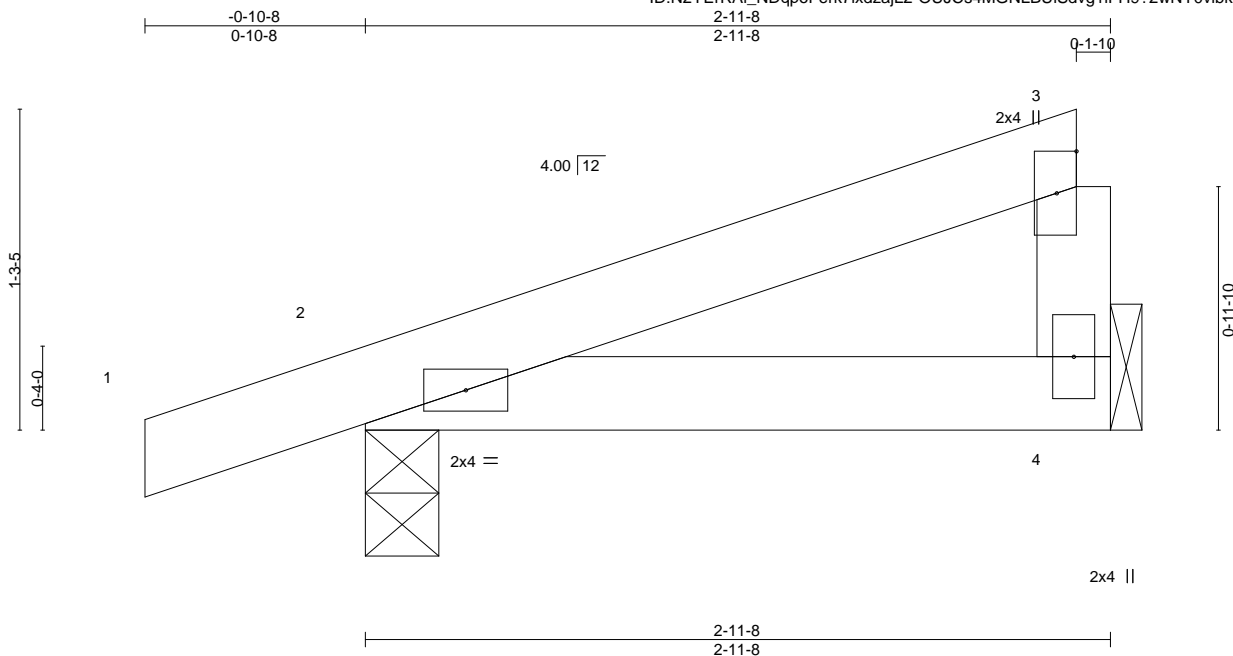
Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	I49242024
3008827	D3	Monopitch	7	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:44 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7ixdzajL2-OUJCs4MGNLBUISdvg1iFH9?2wNY0vibkVR?Wfly9FkH



Scale = 1:9.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	-0.01	4-7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 9 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=Mechanical, 2=0-3-8  
Max Horz 2=49(LC 11)  
Max Uplift 4=29(LC 12), 2=69(LC 8)  
Max Grav 4=117(LC 1), 2=197(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-9-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242025
3008827	E1	Common Supported Gable	1	1	Job Reference (optional)	

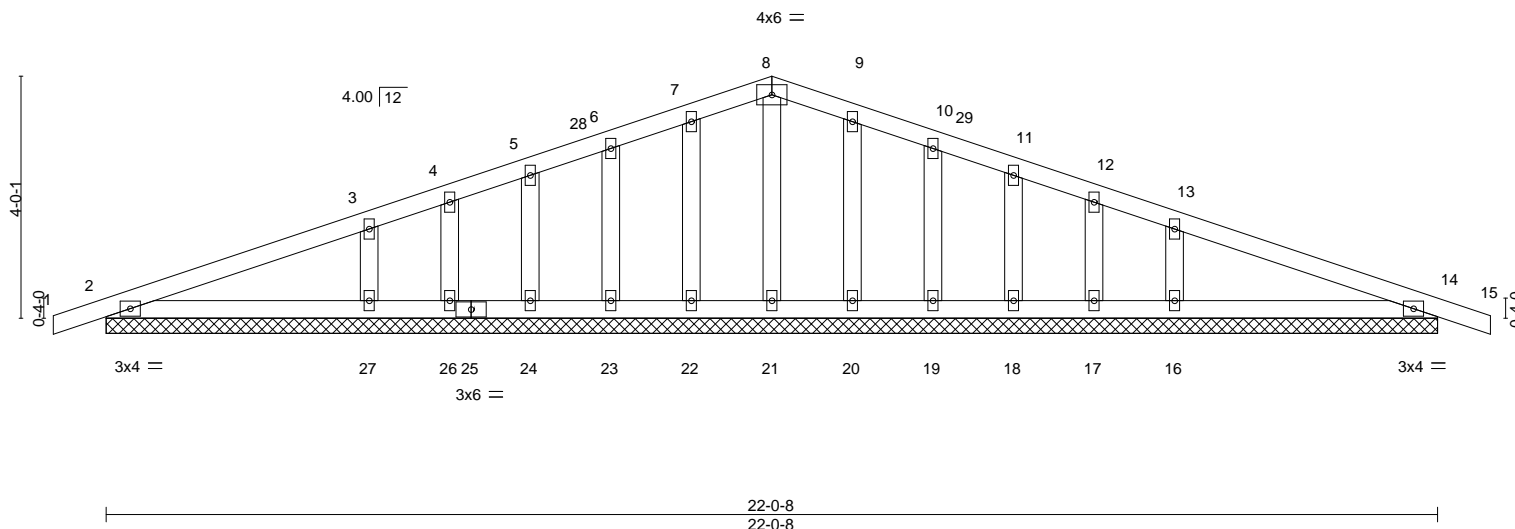
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:45 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7lxdzajL2-tgta3QMv8eJLNC6EkDUqMYBgnuce9Duk5I4BBY9FkG

0-10-8	11-0-4	22-0-8	22-11-0
0-10-8	11-0-4	11-0-4	0-10-8

Scale = 1:38.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	0.01	15	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	0.01	15	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	14	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 82 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

- All bearings 22-0-8.  
(lb) - Max Horz 2=70(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=114(LC 12), 16=114(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 26, 20, 19, 18, 17, 14 except 27=420(LC 25), 16=420(LC 26)

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

WEBS 3-27=-305/171, 13-16=-305/171

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-0-4, Corner(3R) 11-0-4 to 14-0-4, Exterior(2N) 14-0-4 to 22-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 22, 23, 24, 26, 20, 19, 18, 17, 14 except (jt=lb) 27=114, 16=114.
- 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.



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek	149242026
3008827	E2	Common	4	1		

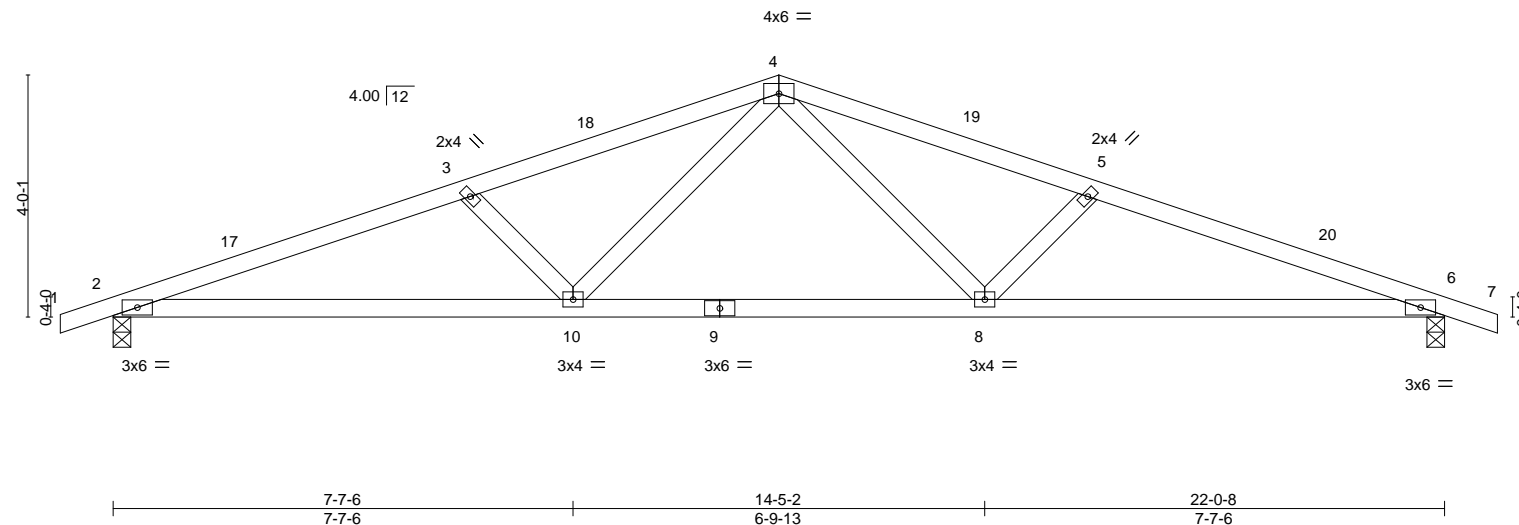
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:46 2021 Page 1

ID: N2YErRAi\_NDqpoFerk7xdzajL2-LtRyGmNXvyRC?mnloSijNa4KmB5yNaZ1zlUdJey9FkF

0-10-8	5-10-15	11-0-4	16-1-9	22-0-8	22-11-0
0-10-8	5-10-15	5-1-5	5-1-5	5-10-15	0-10-8

Scale = 1:38.1



7-7-6		14-5-2		22-0-8	
7-7-6		6-9-13		7-7-6	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	2-0-0	TC 0.38	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.69	Vert(LL) -0.12 10 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.25 10-13 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.06 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 71 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

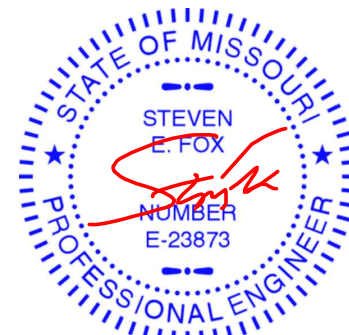
(size) 2=0-3-8, 6=0-3-8  
Max Horz 2=70(LC 12)  
Max Uplift 2=223(LC 8), 6=223(LC 9)  
Max Grav 2=1053(LC 1), 6=1053(LC 1)

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

TOP CHORD 2-3=-2363/569, 3-4=-2086/510, 4-5=-2086/510, 5-6=-2363/569  
BOT CHORD 2-10=-478/2213, 8-10=-276/1486, 6-8=-482/2213  
WEBS 4-8=-125/661, 5-8=-449/198, 4-10=-125/661, 3-10=-449/198

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-0-4, Exterior(2R) 11-0-4 to 14-0-4, Interior(1) 14-0-4 to 22-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=223, 6=223.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 14, 2021

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

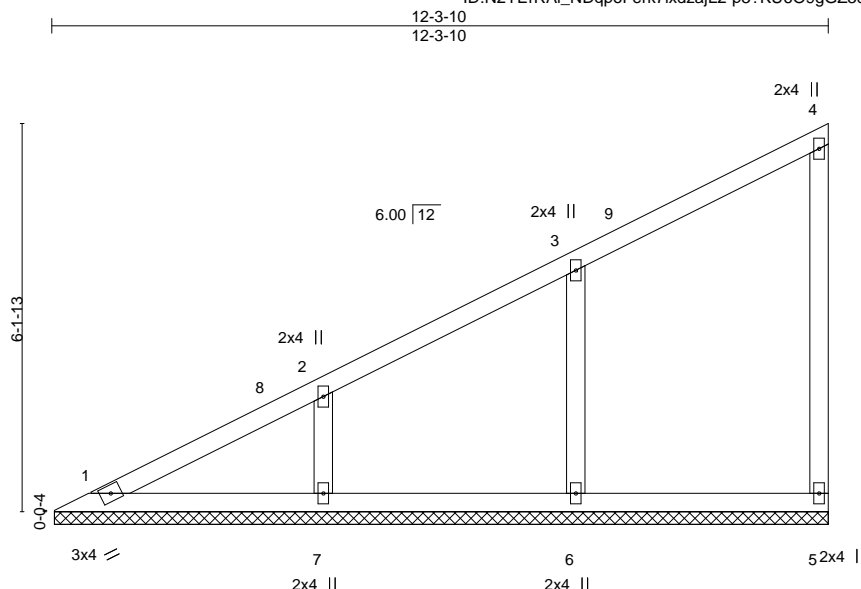
Job 3008827	Truss V1	Truss Type Valley	Qty 1	Ply 1	C&H/154 Cobey Creek 149242027
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:47 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7IxdzajL2-p3?KU6O9gGZ3cwMUL9GyvndXJbZM624ABPEAG4y9FkE



Scale = 1:36.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	-0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 41 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 12-3-2.

(lb) - Max Horz 1=240(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 5 except 6=129(LC 12), 7=130(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=380(LC 1), 7=381(LC 1)

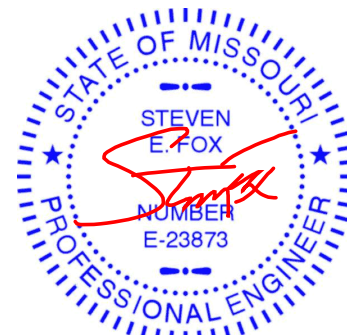
#### FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-2=-351/208

WEBS 3-6=-298/224, 2-7=-289/209

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 12-1-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 6=129, 7=130.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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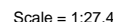
**ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:48 2021 Page 1  
ID:N2YERAI NDapoFerk7Jxdzail-2-HFZihSPnQZhwE4xavsnBS?Ahs\_uvrWmKQ3zkoWv9FkD



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		

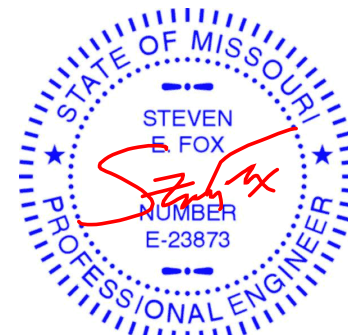
**REACTIONS.** (size) 1=8-11-2, 4=8-11-2, 5=8-11-2  
 Max Horz 1=171(LC 9)  
 Max Uplift 4=-32(LC 9), 5=-136(LC 12)  
 Max Grav 1=152(LC 20), 4=124(LC 1), 5=462(LC 1)

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

TOP CHORD	1-2=-263/172
WEBS	2-5=-359/275

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 8-9-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=136.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021



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

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



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

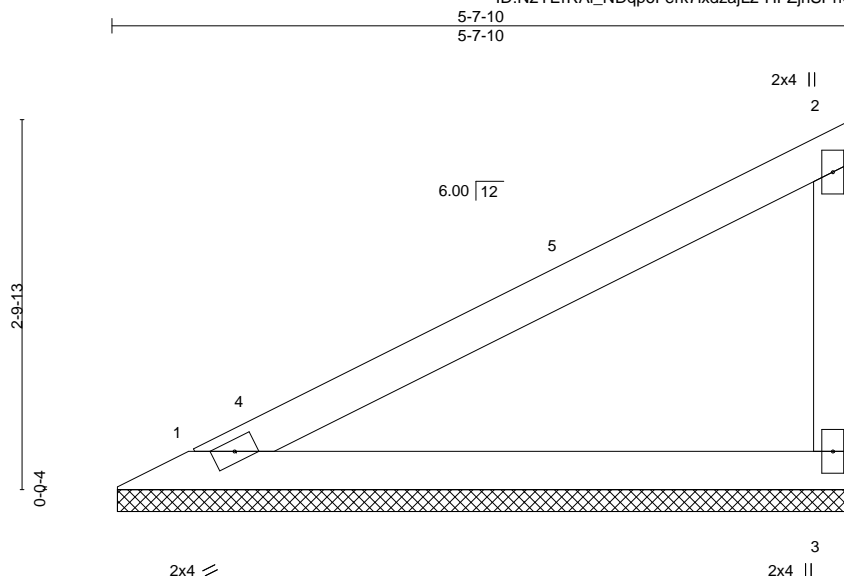
Job 3008827	Truss V3	Truss Type Valley	Qty 1	Ply 1	C&H/154 Cobey Creek Job Reference (optional)	I49242029
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:48 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7lxdzajL2-HFZjhSPnQZhwE4xgvsBS?Ae3\_tKrWaKQ3zkoWy9FkD



Scale = 1:17.5

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 15 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-10 oc purlins, except end verticals.

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

#### REACTIONS.

(size) 1=5-7-2, 3=5-7-2

Max Horz 1=101(LC 9)

Max Uplift 1=-37(LC 12), 3=-62(LC 12)

Max Grav 1=219(LC 1), 3=219(LC 1)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-5-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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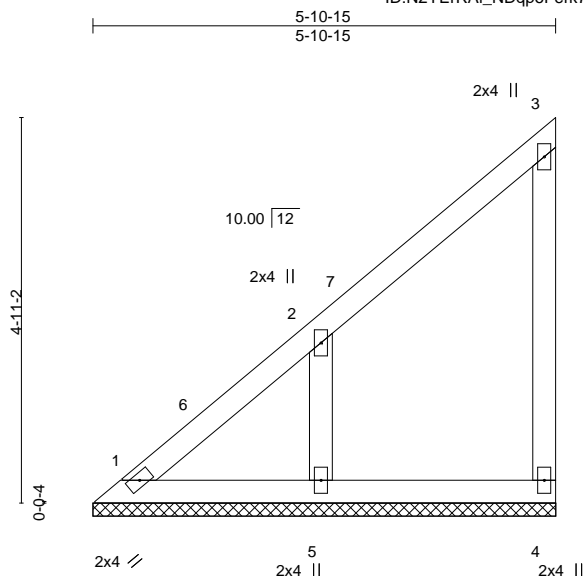


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 3008827	Truss V4	Truss Type GABLE	Qty 1	Ply 1	C&H/154 Cobey Creek 149242030
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:49 2021 Page 1  
ID:N2YErRAi\_NDqpoFerk7LxdzajL2-IS75voPPBtpnsEWtIQ\_Ciu1OGSazvTfjjHKzy9FkC



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 22 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-10-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

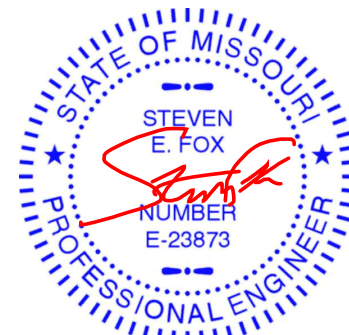
(size) 1=5-10-15, 4=5-10-15, 5=5-10-15  
Max Horz 1=178(LC 9)  
Max Uplift 1=-28(LC 8), 4=-52(LC 9), 5=-163(LC 12)  
Max Grav 1=128(LC 20), 4=120(LC 19), 5=323(LC 19)

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

TOP CHORD 1-2=-406/235  
WEBS 2-5=-255/336

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 5-9-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=163.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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

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



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Chesterfield, MO 63017

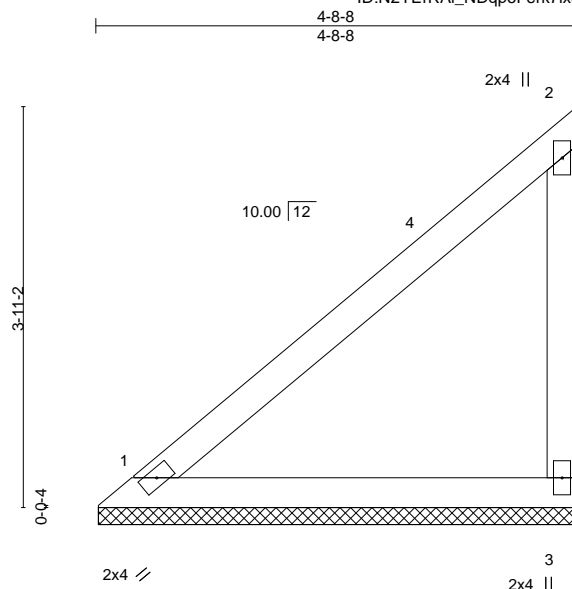
Job 3008827	Truss V5	Truss Type Valley	Qty 1	Ply 1	C&H/154 Cobey Creek 149242031
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:50 2021 Page 1

ID:N2YErRAi\_NDqoFerk7IxdzajL2-DehT68Q1yAxeTN531HpfXQF0ooauJQ4duNSrsPy9FkB



Scale = 1:22.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 15 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-8 oc purlins, except end verticals.

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

#### REACTIONS.

(size) 1=4-8-3, 3=4-8-3

Max Horz 1=138(LC 9)

Max Uplift 1=-12(LC 12), 3=-73(LC 12)

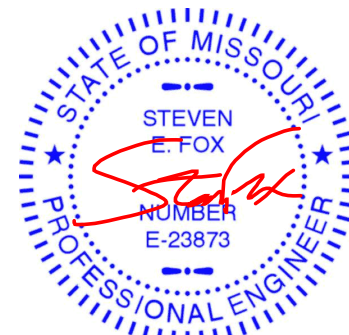
Max Grav 1=187(LC 1), 3=211(LC 19)

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

TOP CHORD 2-3=-182/265

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 4-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 14, 2021

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Chesterfield, MO 63017

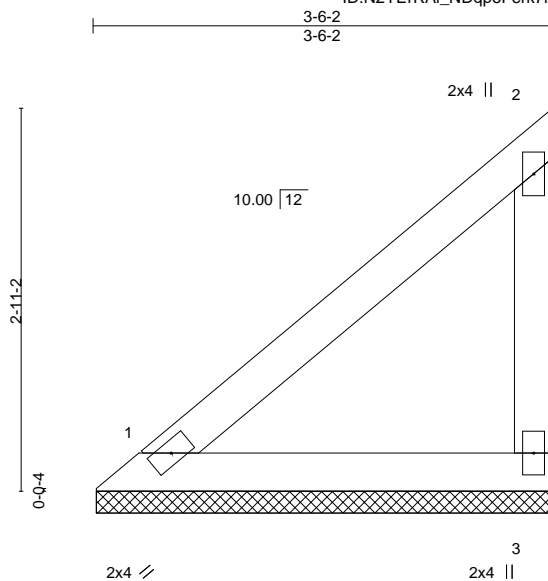
Job	Truss	Truss Type	Qty	Ply	C&H/154 Cobey Creek
3008827	V6	Valley	1	1	I49242032
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Aug 16 2021 MiTek Industries, Inc. Mon Dec 13 21:28:50 2021 Page 1

ID:N2YErRAi\_NDqpoFerk7IxdzajL2-DehT68Q1yAxeTN531HpXQF3hobKJQ4duNSrsPy9FkB



Scale = 1:17.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 11 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

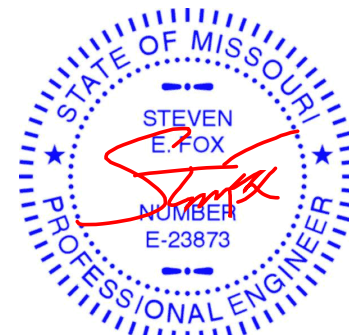
#### REACTIONS.

(size) 1=3-5-13, 3=3-5-13  
Max Horz 1=98(LC 9)  
Max Uplift 1=9(LC 12), 3=52(LC 12)  
Max Grav 1=133(LC 1), 3=150(LC 19)

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

#### NOTES-

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



December 14, 2021

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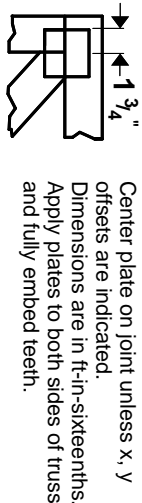
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

# Symbols

## PLATE LOCATION AND ORIENTATION



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

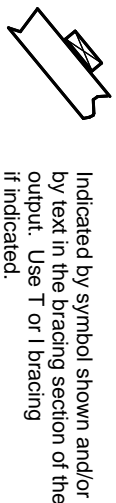
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

## PLATE SIZE

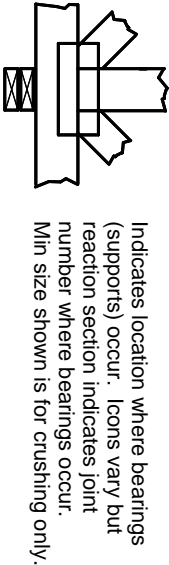
4 X 4

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

## LATERAL BRACING LOCATION



## BEARING



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

**Industry Standards:**  
ANSI/TP1: 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



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

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

## PRODUCT CODE APPROVALS

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

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

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

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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