



RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
05/18/2021

MiTek USA, Inc.

16023 Swingley Ridge Rd
Chesterfield, MO 63017
314-434-1200

Re: 2766770
Summit/26 Hawthorn

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: I45809158 thru I45809201
My license renewal date for the state of Missouri is December 31, 2021.

Missouri COA: Engineering 001193



April 26, 2021

Sevier, Scott ,Engineer

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

Job 2766770	Truss A1	Truss Type GABLE	Qty 1	Ply 1	Summit/26 Hawthorn I45809158
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:12 2021 Page 1

ID:4rXHhD3_rfBCgQSIY2gdJuzGwv6-yM?mpa1_PCCwizV5nDsfH?3f54sxNABSTVmA1szNqGj

-0-11-0 18-0-0 26-0-0
0-11-0 18-0-0 8-0-0

4x4 =

Scale = 1:59.0

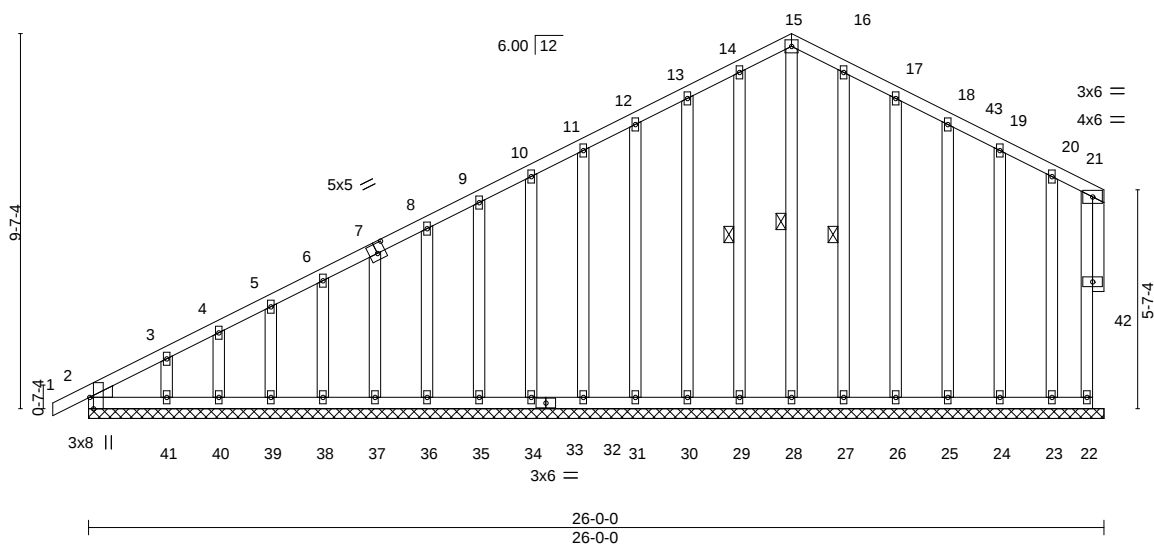


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [7:0-2-8,0-3-0]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL 25.0		Plate Grip DOL 1.15		TC 0.17		Vert(LL) 0.00 1 n/r 120		MT20	197/144
TCDL 10.0		Lumber DOL 1.15		BC 0.07		Vert(CT) -0.00 1 n/r 120			
BCLL 0.0		Rep Stress Incr YES		WB 0.11		Horz(CT) -0.00 22 n/a n/a			
BCDL 10.0		Code IRC2018/TPI2014		Matrix-S					
								Weight: 189 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
Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 15-28, 14-29, 16-27

REACTIONS.

All bearings 26-0-0.
(lb) - Max Horz 2=251(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 27, 26, 25, 24, 23
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 27, 26, 25, 24, 23

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

TOP CHORD 2-3=-260/160, 14-15=-139/251, 15-16=-139/251

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 18-0-0, Corner(3R) 18-0-0 to 21-0-0, Exterior(2N) 21-0-0 to 25-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40, 41, 27, 26, 25, 24, 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.



April 26, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809160
2766770	A8	COMMON GIRDER	1	2	Job Reference (optional)	

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

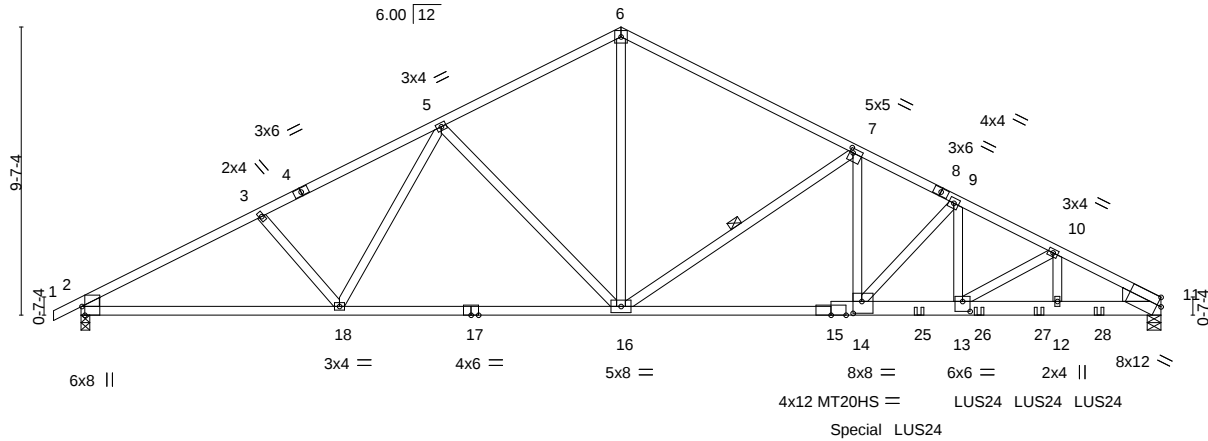
8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:26 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGww6-Y3r3INCm6VzxO7anc96xsyestjRbfJQWhh9wW2zNqGV

-0-11-0	5-0-5	6-0-3	8-7-6	12-0-2	18-0-0	25-10-9	29-2-14	32-6-9	36-0-0
0-11-0	5-0-5	0-11-15	2-7-3	3-4-12	5-11-14	7-10-9	3-4-5	3-3-11	3-5-7

5x5 ||

Scale = 1:76.8



		6-0-3	8-7-6	12-0-2	18-0-0	25-10-9	29-2-14	32-6-9	36-0-0
		6-0-3	2-7-3	3-4-12	5-11-14	7-10-9	3-4-5	3-3-11	3-5-7
Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-1-4,0-1-12], [11:Edge,0-3-7], [13:0-3-0,0-4-0], [14:0-3-8,0-4-12]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.28 14-16 >999	240	MT20 197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.53 16-18 >819	180	MT20HS 148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.95	Horz(CT)	0.15 11 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 323 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
1-4,8-11: 2x4 SPF No.2
BOT CHORD 2x4 SPF 1650F 1.5E *Except*
11-15: 2x6 SPF 2100F 1.8E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SPF No.2 , Right: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-16

REACTIONS.

(size) 2=0-3-8, 11=0-5-8
Max Horz 2=157(LC 12)
Max Uplift 2=-377(LC 8), 11=-750(LC 9)
Max Grav 2=3135(LC 1), 11=6457(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5826/686, 3-5=-5598/683, 5-6=-5034/631, 6-7=-5065/625, 7-9=-10374/1185,
9-10=-11675/1339, 10-11=-11662/1351
BOT CHORD 2-18=-680/5079, 16-18=-557/4835, 14-16=-918/9279, 13-14=-1095/10418,
12-13=-1162/10330, 11-12=-1162/10330
WEBS 6-16=-438/3956, 7-16=-5904/803, 7-14=-528/5242, 9-14=-1667/259, 9-13=-225/1624,
10-12=-227/301, 10-13=-332/281, 5-16=-641/261, 5-18=-99/404, 3-18=-257/197

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-2-0 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed;
MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=377, 11=750.
- 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.
- 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 27-11-4 from the left end to 33-11-4 to connect truss(es) to front face of bottom chord.

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



April 26, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809160
2766770	A8	COMMON GIRDER	1	2	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:26 2021 Page 2
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-Y3r3INCm6VzxO7anc96xsyestjRbfJQWhh9wW2zNqGV

NOTES-

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 4212 lb down and 420 lb up at 25-10-6 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: 1-6=-70, 6-11=-70, 19-22=-20
 Concentrated Loads (lb)
 Vert: 14=-4028(F) 25=-565(F) 26=-565(F) 27=-565(F) 28=-565(F)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2766770	Truss A9	Truss Type Common	Qty 4	Ply 1	Summit/26 Hawthorn 145809161
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Builders FirstSource (Valley Center),

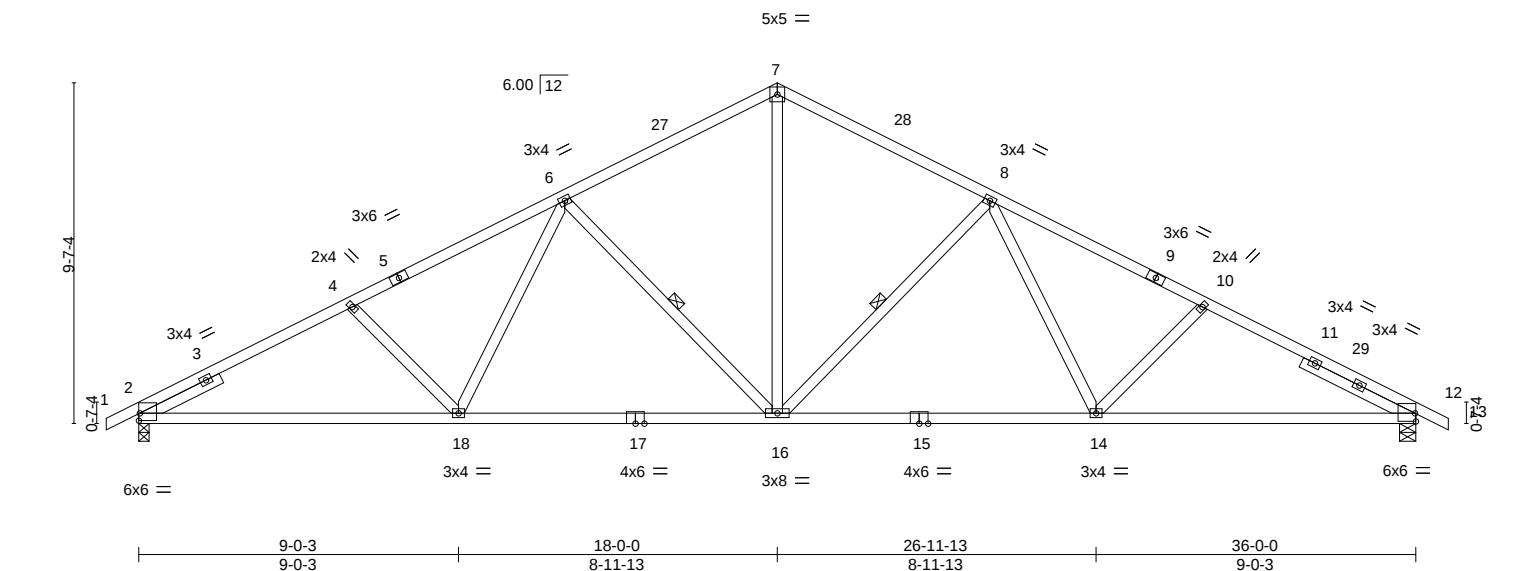
Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:28 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-URypA2D0e6DfdRjAja9PxNkHOX9H7MFp8_e1bxzNqGT

0-11-0	6-0-3	12-0-2	18-0-0	23-11-14	29-11-13	36-0-0	36-11-0
0-11-0	6-0-3	5-11-14	5-11-14	5-11-14	5-11-14	6-0-3	0-11-0

Scale = 1:65.0



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 0.59	Vert(LL)	-0.18 16-18	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.40 16-18	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.29	Horz(CT)	0.13 12	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 151 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 -t 2-6-0, Right 2x4 SPF No.2 -t 3-6-0

BRACING-

TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 8-16, 6-16

REACTIONS.

(size) 2=0-3-8, 12=0-5-8
 Max Horz 2=150(LC 12)
 Max Uplift 2=221(LC 12), 12=222(LC 13)
 Max Grav 2=1677(LC 1), 12=1684(LC 1)

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

TOP CHORD 2-4=-2734/362, 4-6=-2538/346, 6-7=-1850/321, 7-8=-1850/320, 8-10=-2520/343, 10-12=-2681/358
 BOT CHORD 2-18=-384/2375, 16-18=-247/2036, 14-16=-138/2029, 12-14=-230/2343
 WEBS 7-16=-147/1183, 8-16=-702/241, 8-14=-49/409, 10-14=-262/164, 6-16=-710/242, 6-18=-51/422, 4-18=-283/167

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-11-0 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
- 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=221, 12=222.
- 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.



April 26, 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 2766770	Truss A9A	Truss Type COMMON	Qty 2	Ply 1	Summit/26 Hawthorn 145809162
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:29 2021 Page 1

ID:4rXhHd3_rBCgQSIY2gdJuzGwv6-yeWCOOEePQLWFbIMHHgeTbGSBxUOspOyNeOa7NzNqGS

-0-11-0	6-0-3	12-0-2	18-0-0	23-11-14	29-11-13	36-0-0
0-11-0	6-0-3	5-11-14	5-11-14	5-11-14	5-11-14	6-0-3

Scale: 3/16"=1'

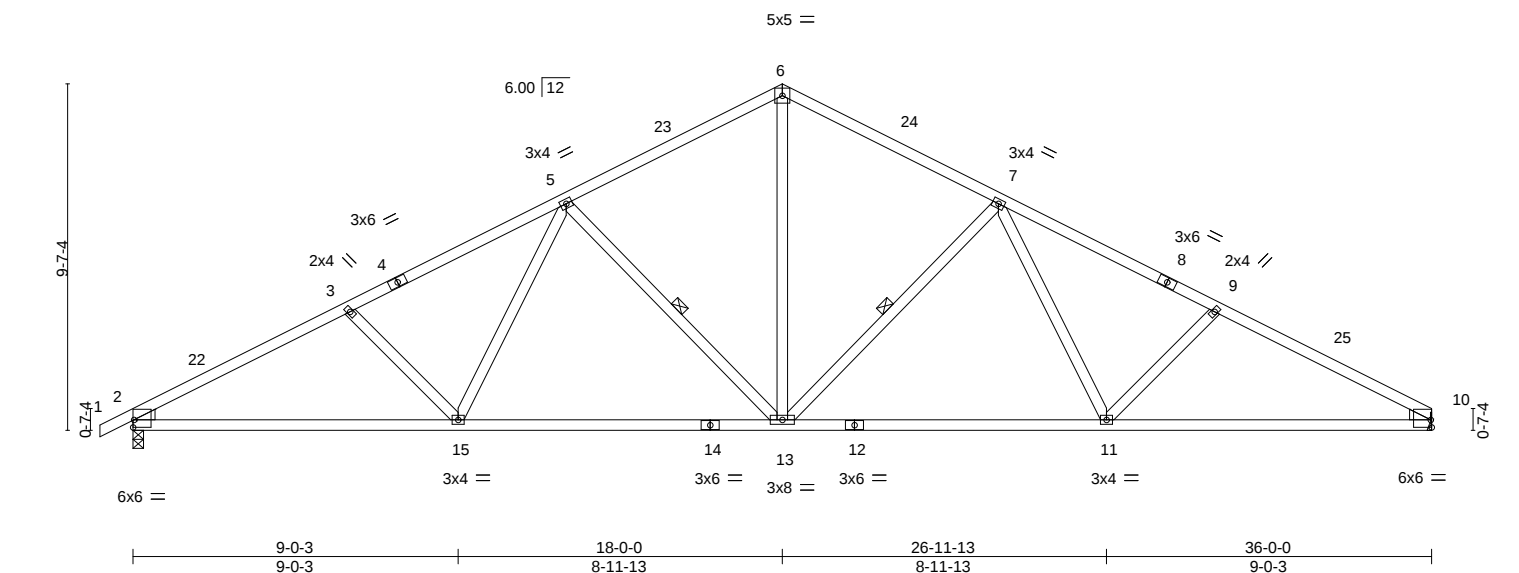


Plate Offsets (X,Y)-- [2:Edge,0-2-8], [10:Edge,0-2-8]		9-0-3 9-0-3		18-0-0 8-11-13		26-11-13 8-11-13		36-0-0 9-0-3	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.20 13-15	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.43 13-15	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.13 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
				Weight: 144 lb				FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-13, 5-13

REACTIONS.

(size) 2=0-3-8, 10=Mechanical
Max Horz 2=157(LC 16)
Max Uplift 2=-220(LC 12), 10=-202(LC 13)
Max Grav 2=1685(LC 1), 10=1619(LC 1)

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

TOP CHORD 2-3=-2867/372, 3-5=-2610/353, 5-6=-1890/325, 6-7=-1889/327, 7-9=-2615/355,
9-10=-2873/374
BOT CHORD 2-15=-402/2472, 13-15=-258/2082, 11-13=-157/2083, 10-11=-262/2480
WEBS 6-13=-152/1214, 7-13=-725/244, 7-11=-57/449, 9-11=-332/175, 5-13=-722/244,
5-15=-56/448, 3-15=-328/174

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=220, 10=202.
- 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.



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809165
2766770	A10A	Roof Special	1	1	Job Reference (optional)	

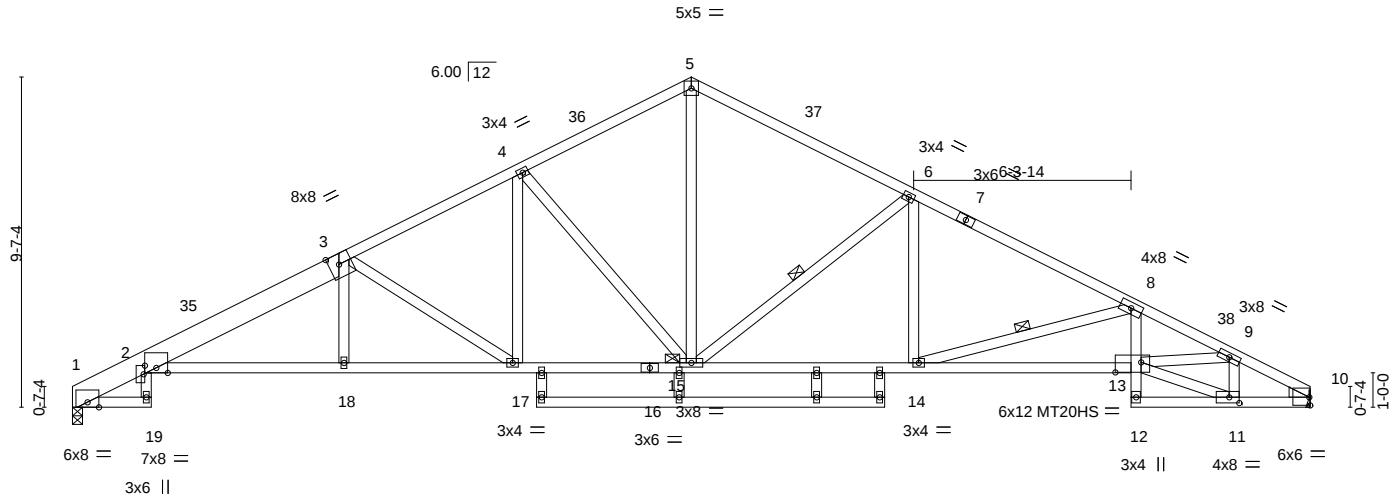
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

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ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-r8EHfy4VTQjMBBps02xbSrEDBh2xJoM2O7kOAdzNqGf

2-3-8	7-10-12	12-11-6	13-6-0	18-0-0	23-7-8	24-5-10	30-9-8	33-9-8	36-0-0
2-3-8	5-7-4	5-0-10	0-6-10	4-6-0	5-7-8	0-10-2	6-3-14	3-0-0	2-2-8

Scale = 1:67.0



2-3-8	7-10-12	12-11-6	13-6-0	17-7-12	18-0-0	21-7-12	23-7-8	24-5-10	30-9-8	33-9-8	36-0-0
2-3-8	5-7-4	5-0-10	0-6-10	4-1-12	0-4-4	3-7-12	1-11-12	0-10-2	6-3-14	3-0-0	2-2-8

Plate Offsets (X,Y)-- [2:0-3-0,0-0-7], [3:0-3-8,Edge], [10:Edge,0-2-13], [11:0-3-8,0-2-0], [13:0-9-0,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.29 15-17	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-0.53 15-17	>809	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.86	Horz(CT)	0.34 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 187 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-16,13-16: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-14, 6-15
JOINTS 1 Brace at Jt(s): 15

REACTIONS.

(size) 1=0-3-8, 10=Mechanical
Max Horz 1=146(LC 12)
Max Uplift 1=200(LC 12), 10=-202(LC 13)
Max Grav 1=1616(LC 1), 10=1614(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-27=-681/187, 2-3=-3431/430, 3-4=-2691/360, 4-5=-2054/338, 5-6=-2088/335,
6-8=-2960/369, 8-9=-4359/520, 9-10=-2624/330
BOT CHORD 2-18=-452/3150, 17-18=-450/3158, 15-17=-255/2325, 14-15=-189/2566, 13-14=-427/4024,
8-13=-37/723, 11-12=-48/268, 10-11=-261/2261
WEBS 3-18=0/256, 3-17=-975/229, 5-15=-166/1380, 9-11=-959/129, 11-13=-227/2125,
9-13=-139/1635, 6-14=-18/534, 8-14=-1514/289, 6-15=-1012/257, 4-17=-75/583,
4-15=-845/233

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=200, 10=202.
- 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.



April 26, 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



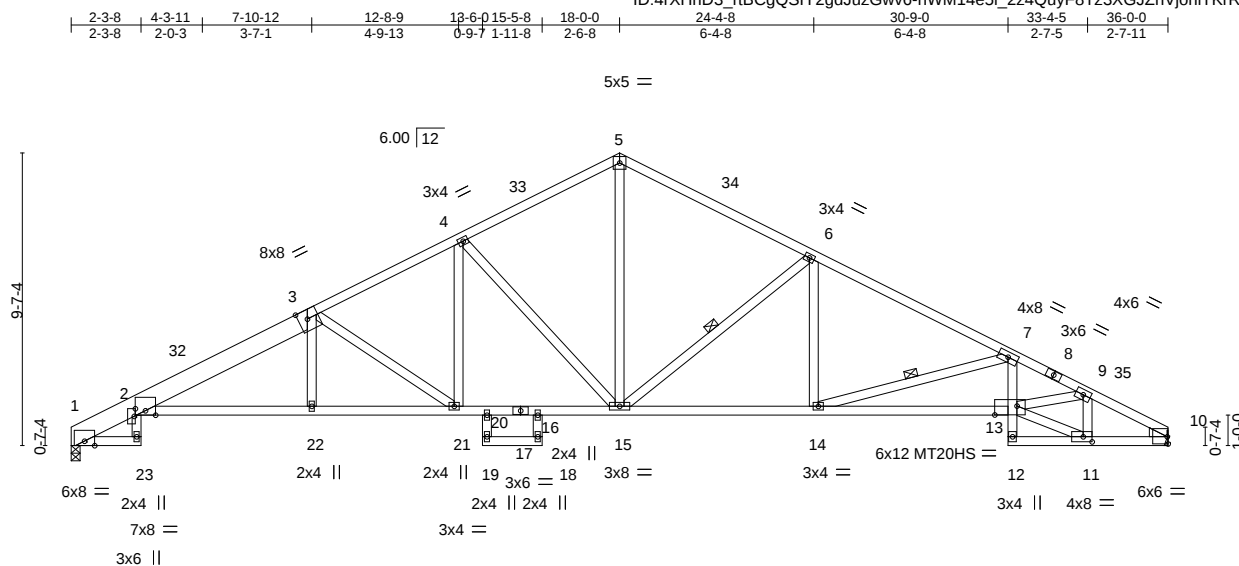
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809166
2766770	A12	ROOF SPECIAL	3	1	Job Reference (optional)	

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

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ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-nWM14e5l_2z4QuyF8Tz3XGJZhVjoniTKrRDVEWzNqGd



Scale = 1:75.6

Plate Offsets (X,Y)--	[2:0-3-0,0-0-7], [3:0-3-8,Edge], [10:Edge,0-2-13], [11:0-3-8,0-2-0], [13:0-8-12,0-3-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.29	20	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.53	16	>818	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.89	Horz(CT)	0.34	10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS							
									Weight: 175 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
1-3: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-17,13-17: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
WEDGE
Right: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-15, 7-14

REACTIONS.

(size) 1=0-3-8, 10=Mechanical
Max Horz 1=146(LC 12)
Max Uplift 1=200(LC 12), 10=-202(LC 13)
Max Grav 1=1616(LC 1), 10=1614(LC 1)

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

TOP CHORD 2-24=-681/187, 2-3=-3427/428, 3-4=-2716/362, 4-5=-2058/337, 5-6=-2086/336,
6-7=-2946/368, 7-9=-4334/518, 9-10=-2680/338
BOT CHORD 2-22=-449/3145, 21-22=-448/3153, 20-21=-262/2352, 16-20=-262/2301, 15-16=-262/2352,
14-15=-186/2552, 13-14=-425/4006, 7-13=-38/716, 11-12=-49/255, 10-11=-263/2310
WEBS 5-15=-164/1375, 6-15=-1003/255, 6-14=-19/534, 7-14=-1511/290, 11-13=-232/2235,
9-11=-1084/135, 4-15=-855/236, 4-21=-74/581, 3-21=-950/220, 3-22=0/254,
9-13=-136/1603

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 18-0-0, Exterior(2R) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=200, 10=202.
- 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.



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809168
2766770	A15	GABLE	1	1	Job Reference (optional)	

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

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ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-8U9w7L9upabMXgrCw0ZEEK1YtWd4S9v3?jxGwjzNqGY

0-11-0 18-0-0 36-0-0
0-11-0 18-0-0 18-0-0

Scale: 3/16"=1'

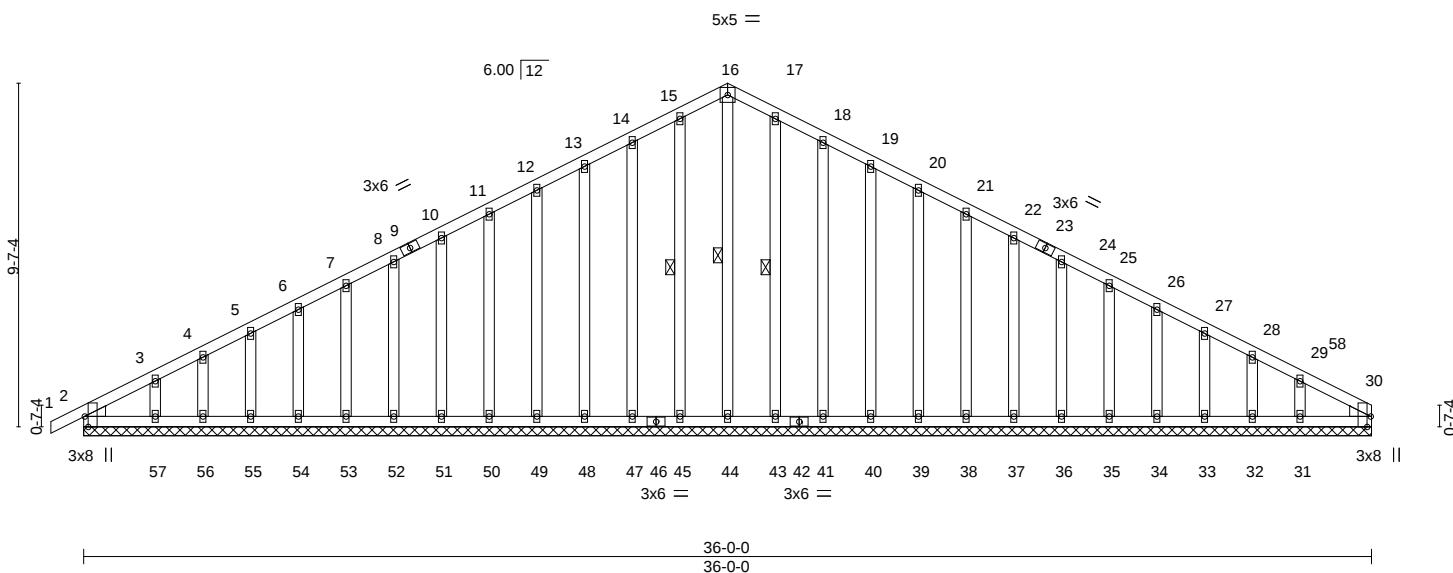


Plate Offsets (X, Y)--		[2:0-3-8, Edge], [30:0-3-8, Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 10.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0	Rep Stress Incr	YES	WB 0.11
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-S
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 1 n/r 120
			Vert(CT) -0.00 1 n/r 120
			Horz(CT) 0.01 30 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 229 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.
WEBS 1 Row at midpt 16-44, 15-45, 17-43

REACTIONS.

All bearings 36-0-0.
(lb) - Max Horz 2=152(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 43, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31
Max Grav All reactions 250 lb or less at joint(s) 2, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 43, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 30, 31

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

TOP CHORD 14-15=-101/253, 15-16=-108/272, 16-17=-108/272, 17-18=-101/253

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 18-0-0, Corner(3R) 18-0-0 to 21-0-0, Exterior(2N) 21-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 45, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 43, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31.
- 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.



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809170
2766770	B2	Roof Special	1	1		

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:34 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-JbK5R6InDy_pLMBK4qGqAe_NsyJXX7YhXw5LpbzNqGN

0-11-0	5-3-8	6-6-0	7-8-8	13-0-0	13-11-0
0-11-0	5-3-8	1-2-8	1-2-8	5-3-8	0-11-0

4x6 ||

Scale: 3/8"=1'

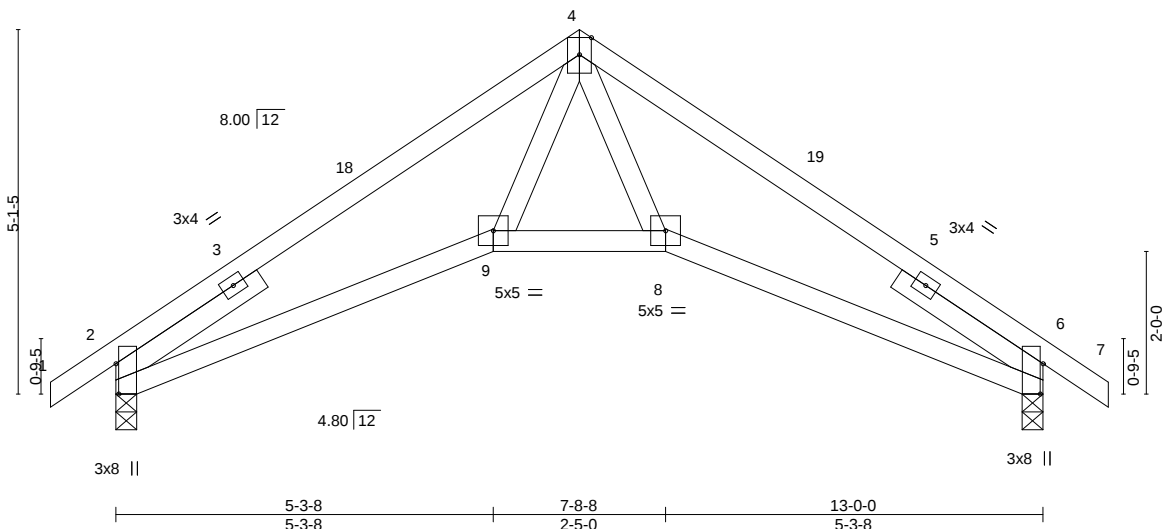


Plate Offsets (X,Y)-- [2:0-5-1,Edge], [6:0-5-1,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.03	8-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.06	8-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 49 lb	FT = 20%

LUMBER-

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

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=-116(LC 10)
 Max Uplift 2=-84(LC 12), 6=-84(LC 13)
 Max Grav 2=649(LC 1), 6=649(LC 1)

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

TOP CHORD 2-4=-1081/160, 4-6=-1081/159
 BOT CHORD 2-9=-85/964, 8-9=-45/704, 6-8=-43/962
 WEBS 4-8=-1/451, 4-9=-43/481

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-11-0 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 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) 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.



April 26, 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

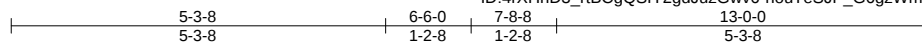
Job 2766770	Truss B3	Truss Type Roof Special	Qty 4	Ply 1	Summit/26 Hawthorn I45809171
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:35 2021 Page 1

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4x6 ||

Scale = 1:32.6

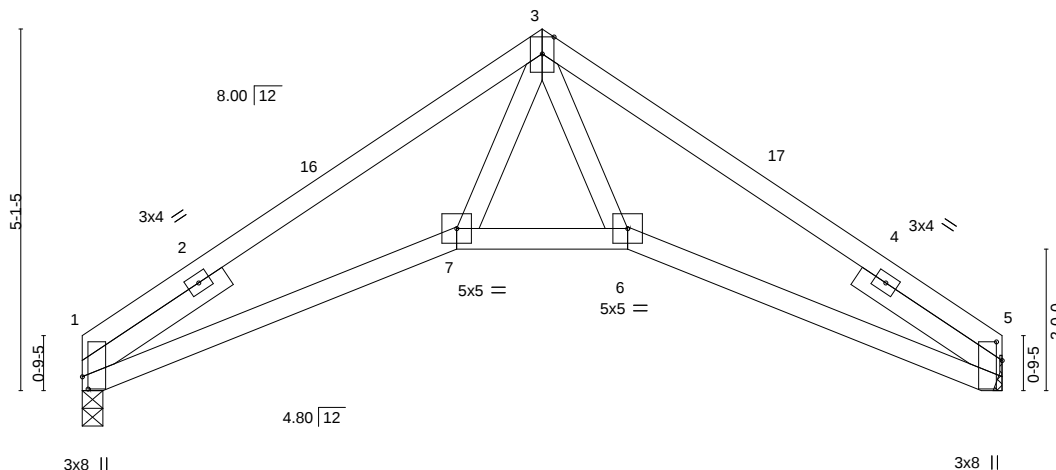


Plate Offsets (X,Y)--	[1:0-2-1,0-0-15], [5:0-3-3,0-0-15]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	-0.03	7-10	>999	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.06	7	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.06	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 46 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=0-3-8, 5=Mechanical
 Max Horz 1=-102(LC 8)
 Max Uplift 1=-65(LC 12), 5=-65(LC 13)
 Max Grav 1=585(LC 1), 5=585(LC 1)

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

TOP CHORD 1-3=-1100/192, 3-5=-1100/195
 BOT CHORD 1-7=-106/981, 6-7=-61/717, 5-6=-84/981
 WEBS 3-7=-52/484, 3-6=-17/461

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 6-6-0, Exterior(2R) 6-6-0 to 9-6-0, Interior(1) 9-6-0 to 13-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 1 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) 1, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 26, 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 2766770	Truss B5	Truss Type Flat Girder	Qty 1	Ply 2	Summit/26 Hawthorn I45809172
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:36 2021 Page 1

ID:4rXHd3_rtBCgQSIY2gdJuzGwv6-F_RrsoJ1lZEWbfKiBFIIG33llvJ?uM__EaStTzNqGL

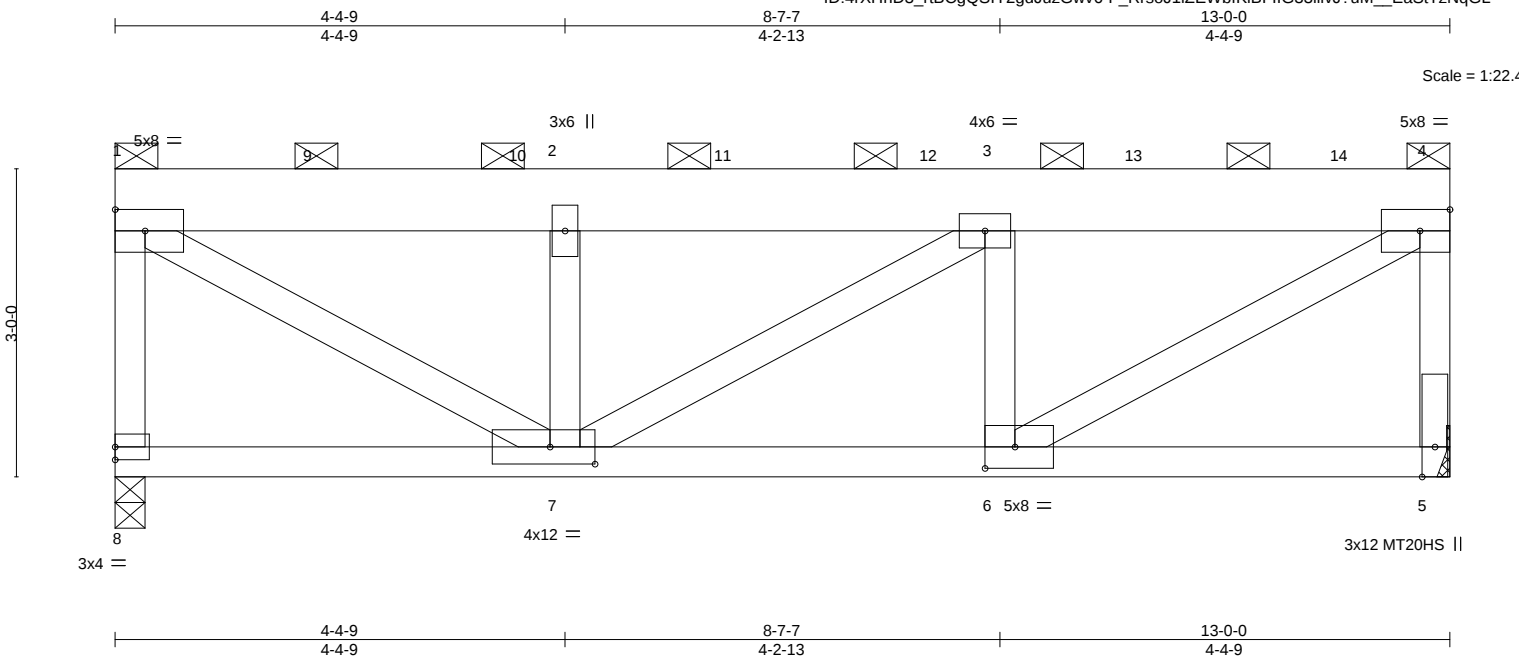


Plate Offsets (X,Y)-- [6:0-3-8,0-2-8], [7:0-5-4,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.09	6-7	>999	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 160 lb	FT = 20%

LUMBER-

TOP CHORD 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-4, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=0-3-8, 5=Mechanical
Max Horz 8=-88(LC 4)
Max Uplift 8=-376(LC 4), 5=-400(LC 5)
Max Grav 8=3650(LC 2), 5=4232(LC 2)

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

TOP CHORD 1-8=-3590/388, 1-2=-4694/512, 2-3=-4694/512, 3-4=-4740/496, 4-5=-4168/412
BOT CHORD 6-7=-519/4740
WEBS 1-7=-599/5387, 2-7=-2683/352, 3-6=-2742/340, 4-6=-579/5430

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x8 - 2 rows staggered 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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=376, 5=400.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1186 lb down and 88 lb up at 2-0-0, 1186 lb down and 88 lb up at 4-0-0, 1186 lb down and 88 lb up at 8-0-0, 1186 lb down and 88 lb up at 10-0-0, and 1191 lb down and 89 lb up at 12-0-0, and 1198 lb down and 201 lb up at 6-0-0 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

Continued on page 2



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809172
2766770	B5	Flat Girder	1	2	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:36 2021 Page 2
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-F_RrsoJ1lZEWbfKiBFllG33llvJ?uM__EaStTzNqGL

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 5-8=-20
Concentrated Loads (lb)
Vert: 9=-1066 10=-1066 11=-1116 12=-1066 13=-1066 14=-1071

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809173
2766770	B6	GABLE	1	1	Job Reference (optional)	

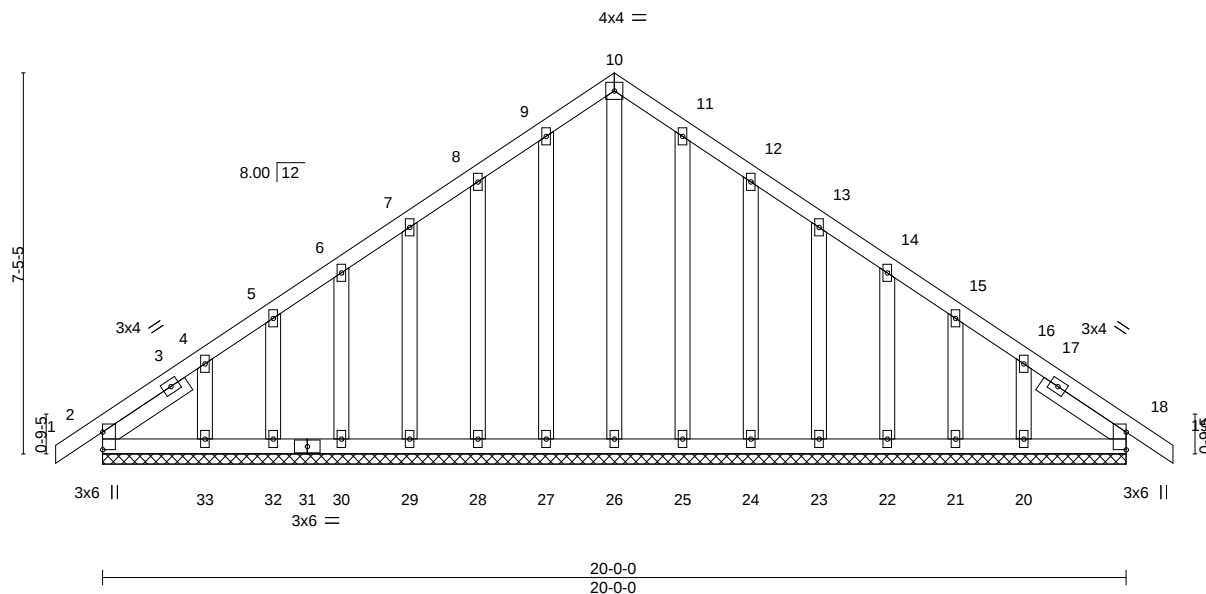
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:38 2021 Page 1

ID:4rXHhD3_rfBCgQSIY2gdJuzGwv6-CMZbGTLIHBUeQzU5JgKmlU88lZlTxiHRY3YyMzNqGJ

0-11-0 10-0-0 20-0-0 20-11-0
0-11-0 10-0-0 10-0-0 0-11-0

Scale = 1:45.0



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 0.05	Vert(LL)	-0.00 18	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00 18	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00 18	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 117 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 2-0-0, Right 2x4 SPF No.2 -t 2-0-0

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=171(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 2, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 18, 21, 20

Max Grav All reactions 250 lb or less at joint(s) 2, 26, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 18, 21, 20

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-11-0 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, 27, 28, 29, 30, 32, 33, 25, 24, 23, 22, 18, 21, 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.



April 26, 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

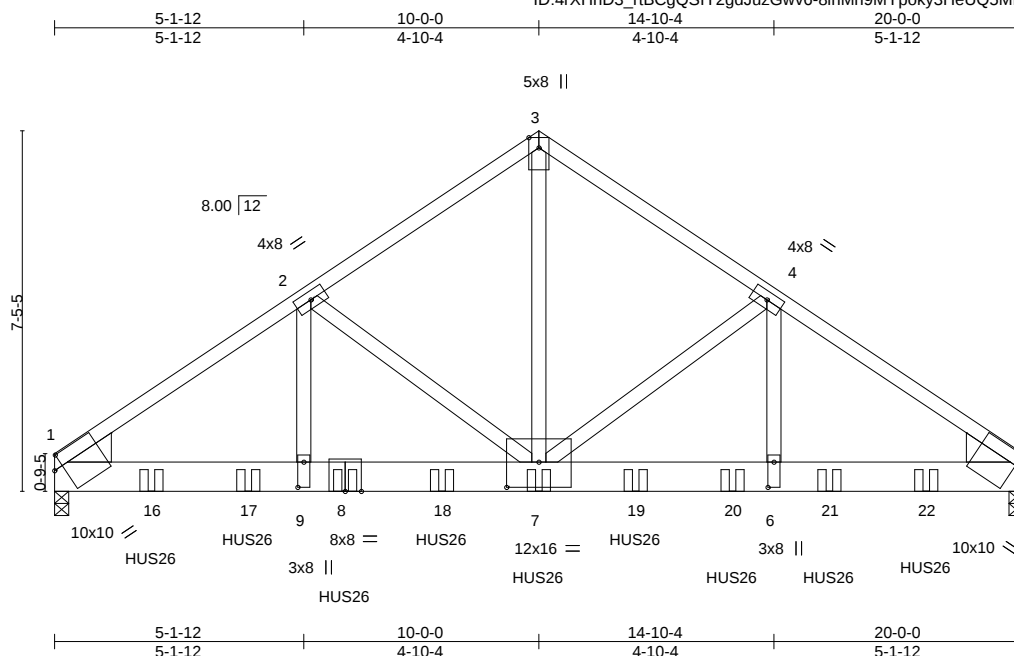
Job 2766770	Truss B7	Truss Type COMMON GIRDER	Qty 1	Ply 2	Summit/26 Hawthorn	I45809174
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:40 2021 Page 1

ID:4rXHhD3_rtbCgQSIY2gdJuzGwv6-8lhMh9MYpoky3HeUQ5MEQvEGpMLkxi2avsYf0EzNqGH



Scale: 1/4"=1'

Plate Offsets (X,Y)-- [1:0-2-4,0-3-3], [5:0-2-4,0-3-3], [6:0-6-4,0-1-8], [7:0-8-0,0-6-4], [9:0-6-4,0-1-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.14	6-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.25	6-7	>955	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.69	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 246 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
3-7: 2x4 SPF 1650F 1.5E

WEDGE

Left: 2x8 SP No.2 , Right: 2x8 SP No.2

REACTIONS.

(size) 1=0-3-8, 5=0-3-8
Max Horz 1=-156(LC 27)
Max Uplift 1=-1052(LC 8), 5=-1052(LC 9)
Max Grav 1=8078(LC 1), 5=8081(LC 1)

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

TOP CHORD 1-2=-11045/1449, 2-3=-8018/1113, 3-4=-8018/1113, 4-5=-11049/1450
BOT CHORD 1-9=-1232/9092, 7-9=-1232/9092, 6-7=-1134/9096, 5-6=-1134/9096
WEBS 3-7=-1127/8445, 4-7=-3153/534, 4-6=-408/3296, 2-7=-3149/533, 2-9=-406/3292

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 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.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1052, 5=1052.
- 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.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 18-0-0 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard



April 26, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809174
2766770	B7	COMMON GIRDER	1	2	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:40 2021 Page 2
ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-8lhMh9MYpoky3HeUQ5MEQvEGpMLkxi2avsYf0EzNqGH

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, 10-13=-20

Concentrated Loads (lb)

Vert: 8=-1594(F) 7=-1594(F) 16=-1599(F) 17=-1594(F) 18=-1594(F) 19=-1594(F) 20=-1594(F) 21=-1599(F) 22=-1599(F)

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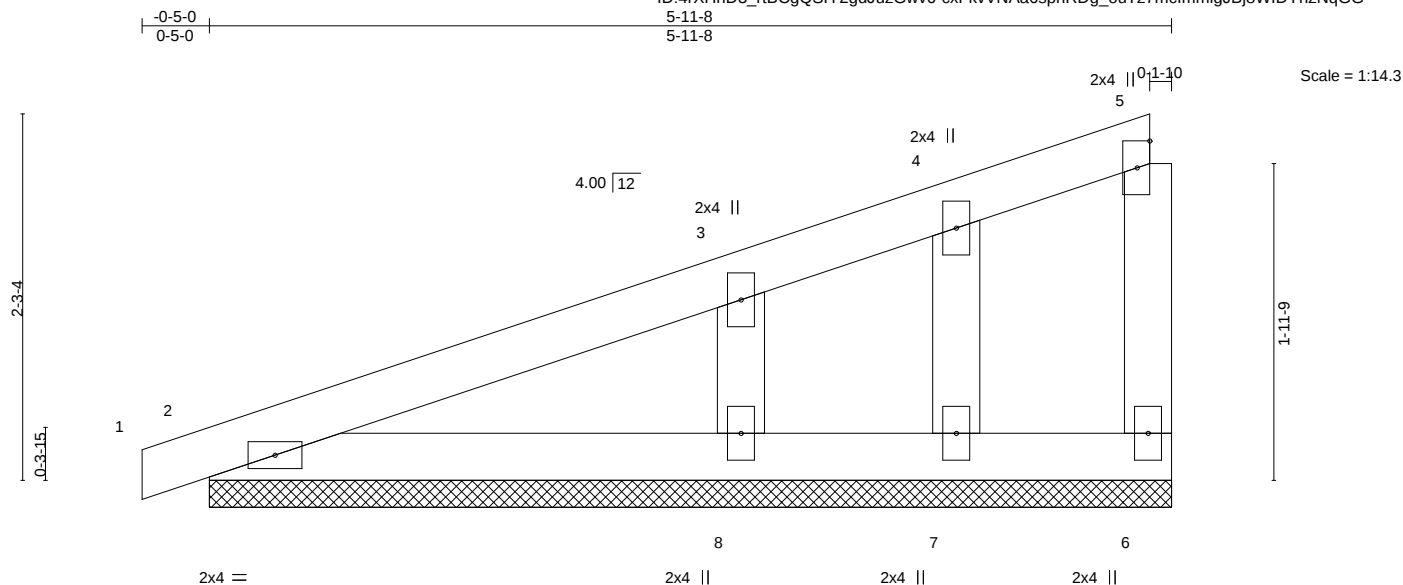
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809175
2766770	C1	GABLE	1	1	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:41 2021 Page 1

ID:4rXHhD3_rfBCgQSIY2gdJuzGwv6-cxKvVNAa6sphRDg_ouTz7mclmmJgJBj8WIDYhzNqGG



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	-0.00	1	n/r	120	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	0.00	1	n/r	120	
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	6	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 19 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 5-11-8.

(lb) - Max Horz 2=80(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8

Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=305(LC 1)

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

WEBS 3-8=-235/299

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) gable end zone and C-C Corner(3E) -0-5-0 to 2-7-0, Exterior(2N) 2-7-0 to 5-9-5 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
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 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) 6, 2, 7, 8.
- 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.



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809176
2766770	C2	MONO TRUSS	6	1	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:42 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-48p66rOoLP_gJaosYWPIVKJi3A1LPmFsMA1m57zNqGF

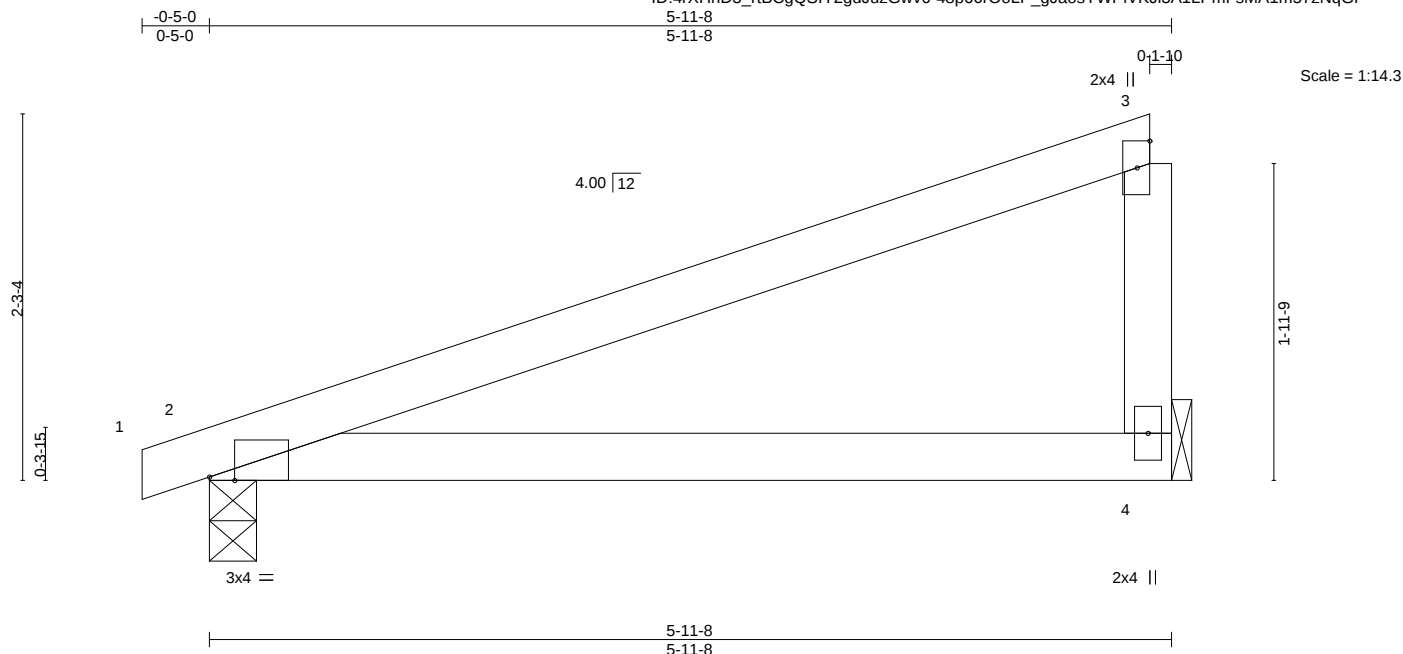


Plate Offsets (X,Y)--		[2:0-1-14,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.45
TCDL 10.0	Lumber DOL	1.15	BC 0.37
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.06 4-7 >999 240
			Vert(CT) -0.13 4-7 >548 180
			Horz(CT) 0.00 2 n/a n/a
			PLATES MT20 GRIP 197/144
			Weight: 16 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 4=Mechanical
Max Horz 2=81(LC 11)
Max Uplift 2=-57(LC 8), 4=-53(LC 12)
Max Grav 2=292(LC 1), 4=261(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) gable end zone and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 5-9-12 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 to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 26, 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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809177
2766770	C3	MONO TRUSS	4	1	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:43 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-YKMUKBPQ6j6XwkN25Dwx2YsnmaJK8DV0bqnJdZzNqGE

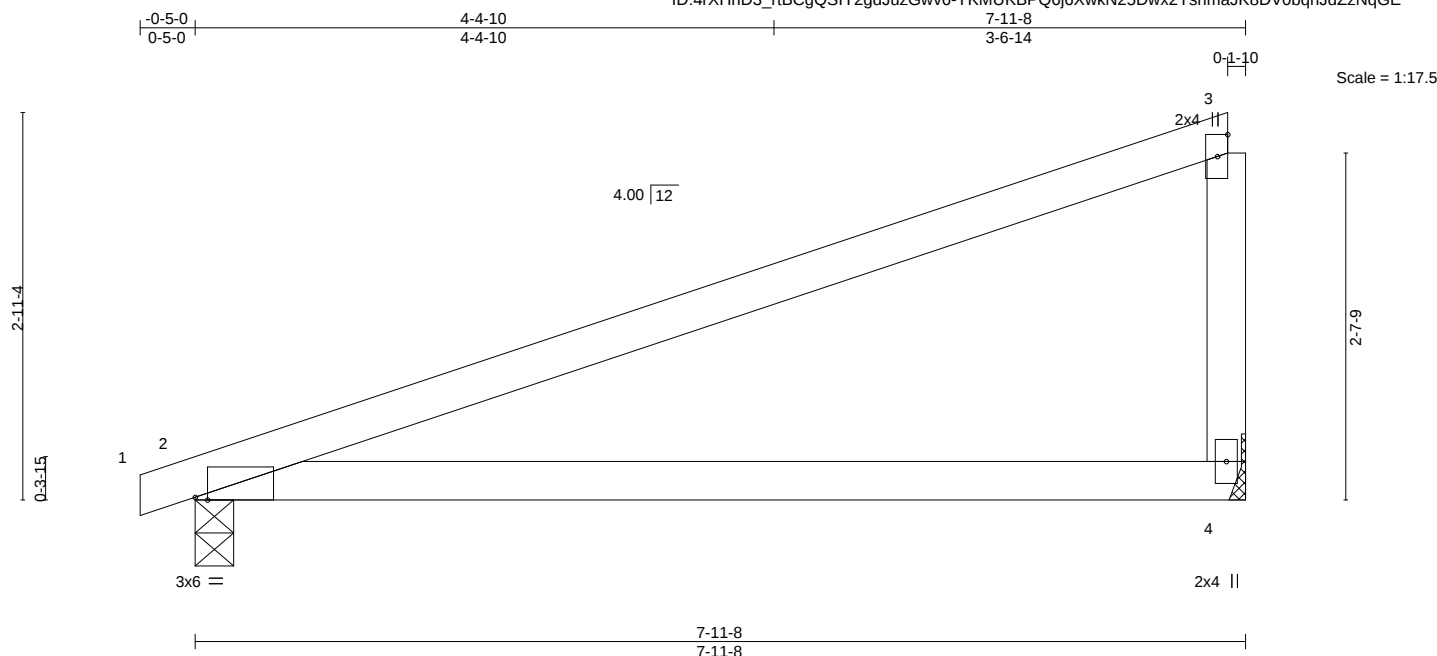


Plate Offsets (X,Y)--		[2:0-1-2,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.84
TCDL 10.0	Lumber DOL	1.15	BC 0.64
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.19 4-7 >498 240
			Vert(CT) -0.39 4-7 >241 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 22 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) 2=0-3-8, 4=Mechanical
Max Horz 2=108(LC 11)
Max Uplift 2=-72(LC 8), 4=-72(LC 12)
Max Grav 2=382(LC 1), 4=351(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) gable end zone and C-C Exterior(2E) -0-5-0 to 2-7-0, Interior(1) 2-7-0 to 7-9-12 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 to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 26, 2021

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



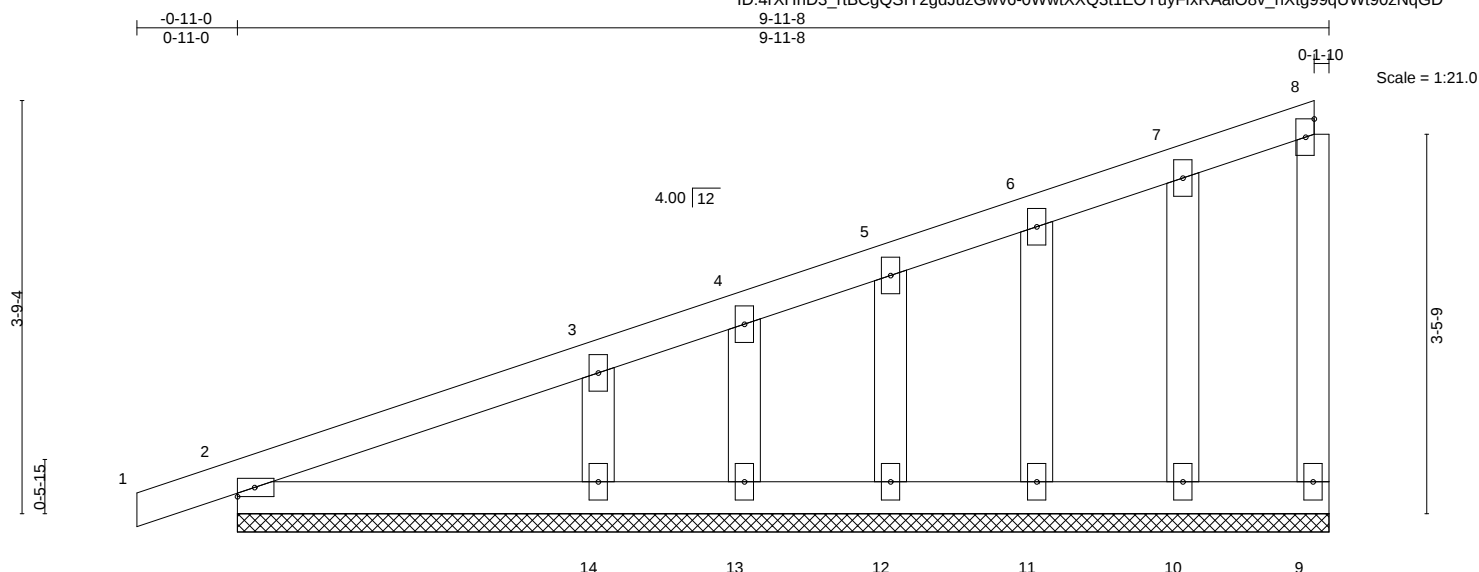
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809178
2766770	C4	GABLE	1	1	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:44 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-0WwtXXQ3t1EOYuyFfxRAalO8v_nXtg99qUWt90zNqGD



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.11	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 39 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
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 9-11-8.

(lb) - Max Horz 2=140(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 2, 9, 10, 11, 12, 13, 14

Max Grav All reactions 250 lb or less at joint(s) 2, 9, 10, 11, 12, 13 except 14=287(LC 1)

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

TOP CHORD 2-3=-262/129

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) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 9-9-5 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
- 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) Gable studs spaced at 1-4-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9, 10, 11, 12, 13, 14.
- 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.



April 26, 2021

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

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



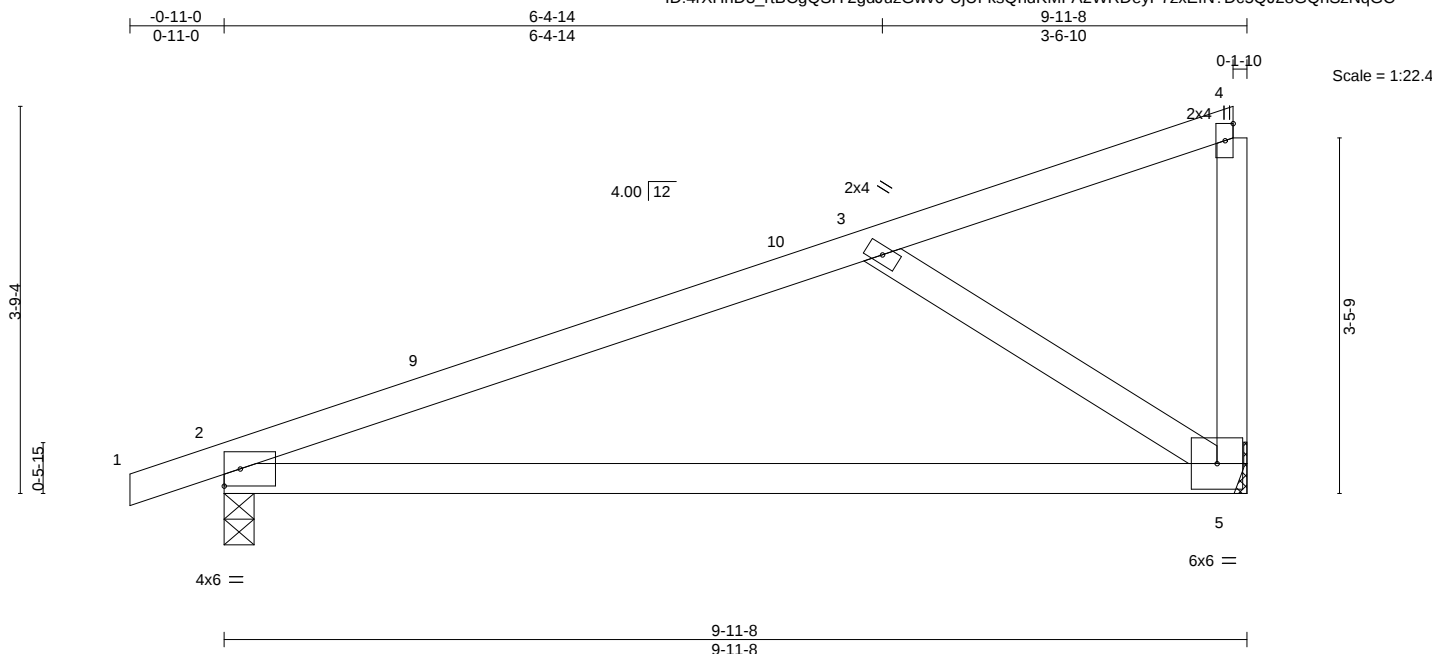
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809179
2766770	C5	MONO TRUSS	9	1	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:45 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-UjUFksQhdKMFA2WRDeyP7zxEnf?Dc5QJ28GQhSzNqGC



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 0.43	Vert(LL)	-0.22	5-8	>546	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.45	5-8	>262	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.02	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 33 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) 2=0-3-8, 5=Mechanical
Max Horz 2=142(LC 11)
Max Uplift 2=-104(LC 8), 5=-89(LC 8)
Max Grav 2=509(LC 1), 5=439(LC 1)

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

TOP CHORD 2-3=-552/164
BOT CHORD 2-5=-283/486
WEBS 3-5=-531/298

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) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 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 to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=104.
- 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.



April 26, 2021

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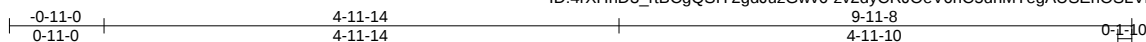
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2766770	Truss C6	Truss Type GABLE	Qty 1	Ply 1	Summit/26 Hawthorn Job Reference (optional)	I45809180
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:46 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-zv2dyCRJOeV6nC5dnMTegAUSEnOSLVESHo?_EuzNqGB



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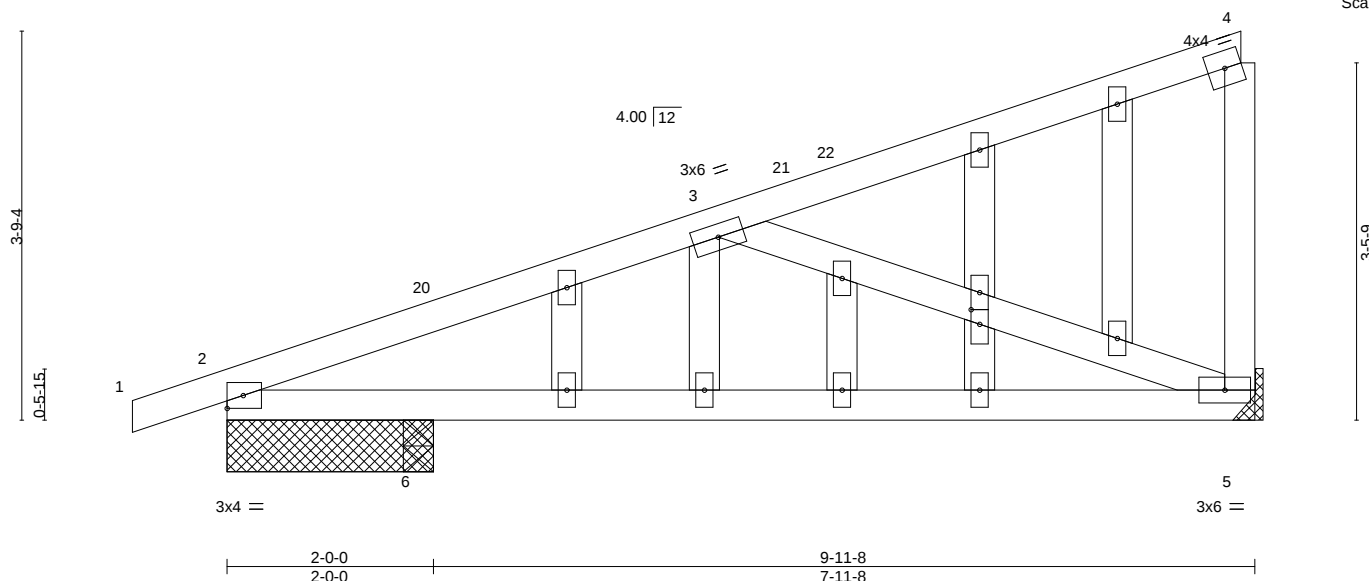


Plate Offsets (X,Y)--		[4:0-0-0,0-0-0], [11:0-1-11,0-1-0]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.25	Vert(LL) -0.09 5-6 >999 240	MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT) -0.18 5-6 >530 180		
BCLL 0.0	Rep Stress Incr YES	WB 0.26	Horz(CT) 0.01 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 43 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, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=2-0-0, 5=Mechanical, 6=0-3-8
Max Horz 2=142(LC 11)
Max Uplift 2=-152(LC 8), 5=-100(LC 8)
Max Grav 2=356(LC 1), 5=403(LC 1), 6=354(LC 3)

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

TOP CHORD 2-3=-620/232
BOT CHORD 2-6=-384/541, 5-6=-384/541
WEBS 3-5=-532/358

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) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 9-9-12 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) 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 studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=152.
- 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.



April 26, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2766770	Truss CJ1	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Summit/26 Hawthorn Job Reference (optional)	I45809181
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:47 2021 Page 1

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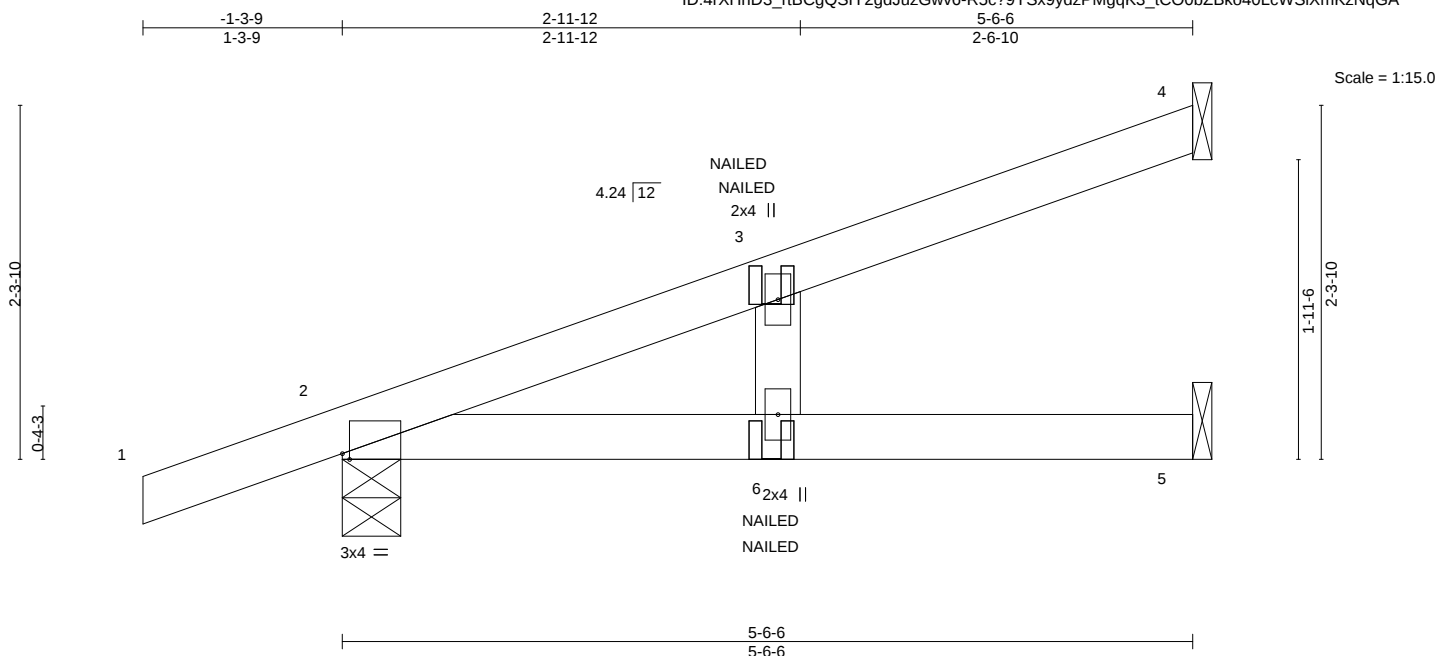


Plate Offsets (X,Y)--		[2:0-0-9,Edge]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.06	6	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.11	6	>571	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 16 lb	FT = 20%	

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-6-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=Mechanical, 2=0-4-9, 5=Mechanical
Max Horz 2=93(LC 4)
Max Uplift 4=-47(LC 8), 2=-85(LC 4), 5=-8(LC 8)
Max Grav 4=145(LC 1), 2=353(LC 1), 5=96(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 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, 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.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-70, 5-7=-20
Concentrated Loads (lb)
Vert: 6=-10(F=-5, B=-5)



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809182
2766770	D1	GABLE	1	1	Job Reference (optional)	

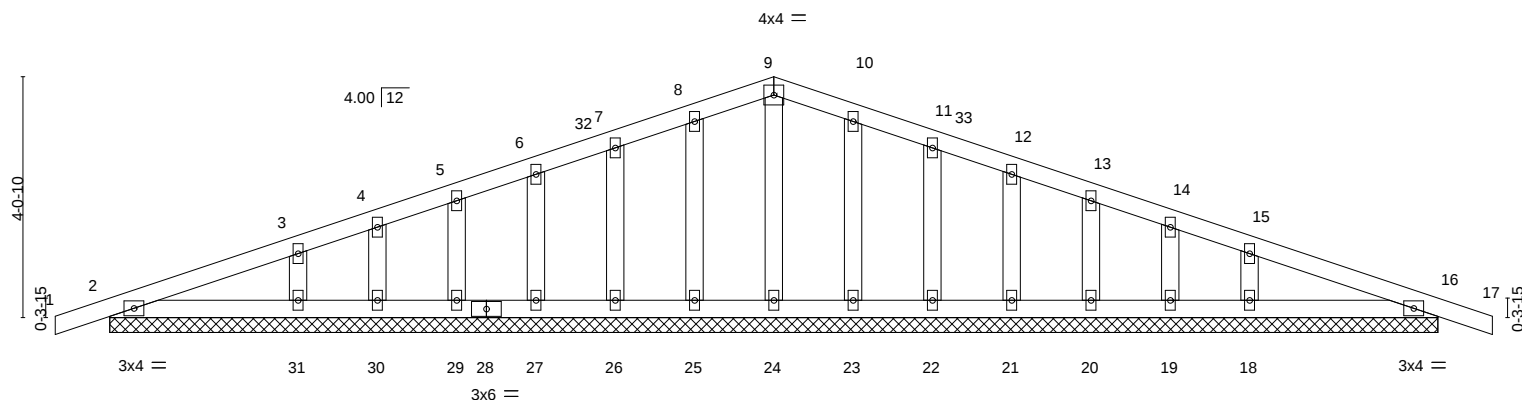
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:49 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-NUkmaETBhZtgefQCSU1LHp5?w?VnYwbuzmEeqDzNqG8

-0-11-0	11-2-0	22-4-0	23-3-0
0-11-0	11-2-0	11-2-0	0-11-0

Scale = 1:38.7



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	0.00	MT20		197/144	
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00				
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 85 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 22-4-0.
(lb) - Max Horz 2--64(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 29, 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, 29, 30, 23, 22, 21, 20, 19, 16 except
31=273(LC 25), 18=273(LC 26)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 2-1-0, Exterior(2N) 2-1-0 to 11-2-0, Corner(3R) 11-2-0 to 14-2-0, Exterior(2N) 14-2-0 to 23-3-0 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, 25, 26, 27, 29, 30, 31, 23, 22, 21, 20, 19, 18, 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.



April 26, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809183
2766770	D2	Common	5	1		

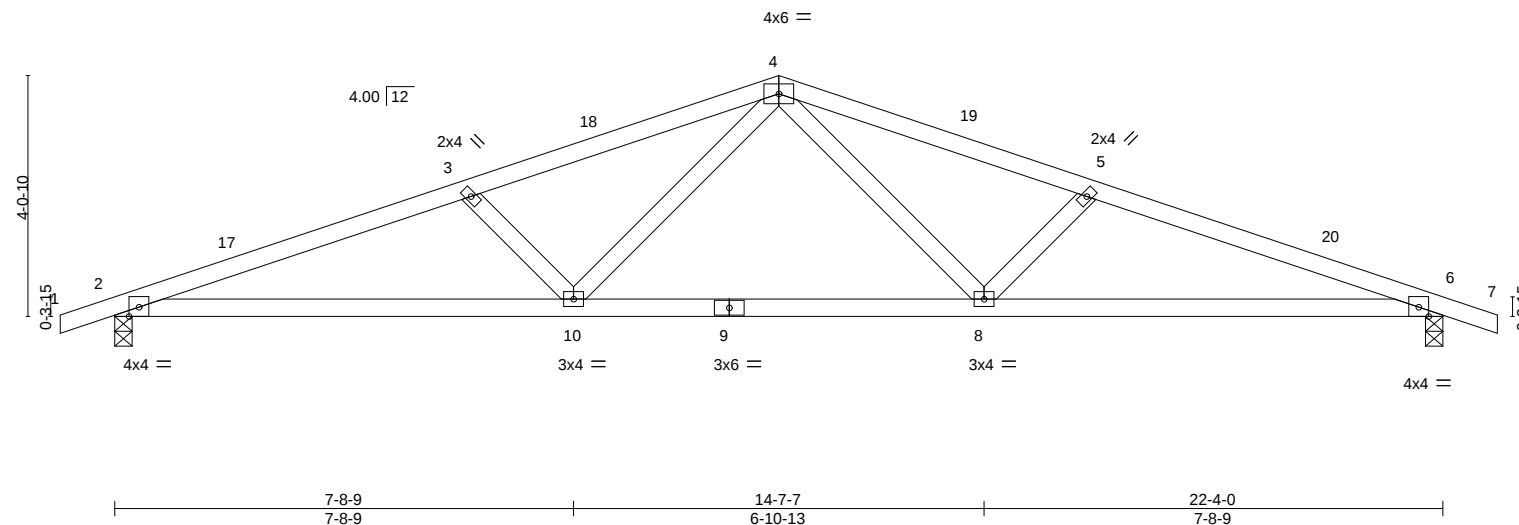
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:50 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-rgl8oaUpSt?XGpPP0BYaq0e5wOgwHLg2CQzBNfzNqG7

0-11-0	5-11-14	11-2-0	16-4-2	22-4-0	23-3-0
0-11-0	5-11-14	5-2-2	5-2-2	5-11-14	0-11-0

Scale = 1:38.7



7-8-9		14-7-7		22-4-0	
7-8-9		6-10-13		7-8-9	
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.40	in (loc) l/defl L/d	MT20	197/144
TCDL 10.0	Plate Grip DOL 1.15	BC 0.71	Vert(LL) -0.13 10-13 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.16	Vert(CT) -0.26 10-13 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.07 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 72 lb	FT = 20%

LUMBER-

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

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=-64(LC 17)
Max Uplift 2=-180(LC 8), 6=-180(LC 9)
Max Grav 2=1069(LC 1), 6=1069(LC 1)

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

TOP CHORD 2-3=-2401/463, 3-4=-2118/415, 4-5=-2118/415, 5-6=-2401/463
BOT CHORD 2-10=-383/2248, 8-10=-214/1508, 6-8=-385/2248
WEBS 4-8=-97/672, 5-8=-456/172, 4-10=-97/672, 3-10=-456/172

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 11-2-0, Exterior(2R) 11-2-0 to 14-2-0, Interior(1) 14-2-0 to 23-3-0 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=180, 6=180.
- 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.



April 26, 2021

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

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



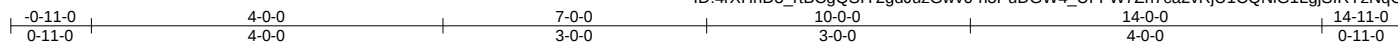
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809184
2766770	E1	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:52 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-n3PuDGW4_UFFW7Zn7ca2vRjU1CQNIg1LgJSIRYzNqG5



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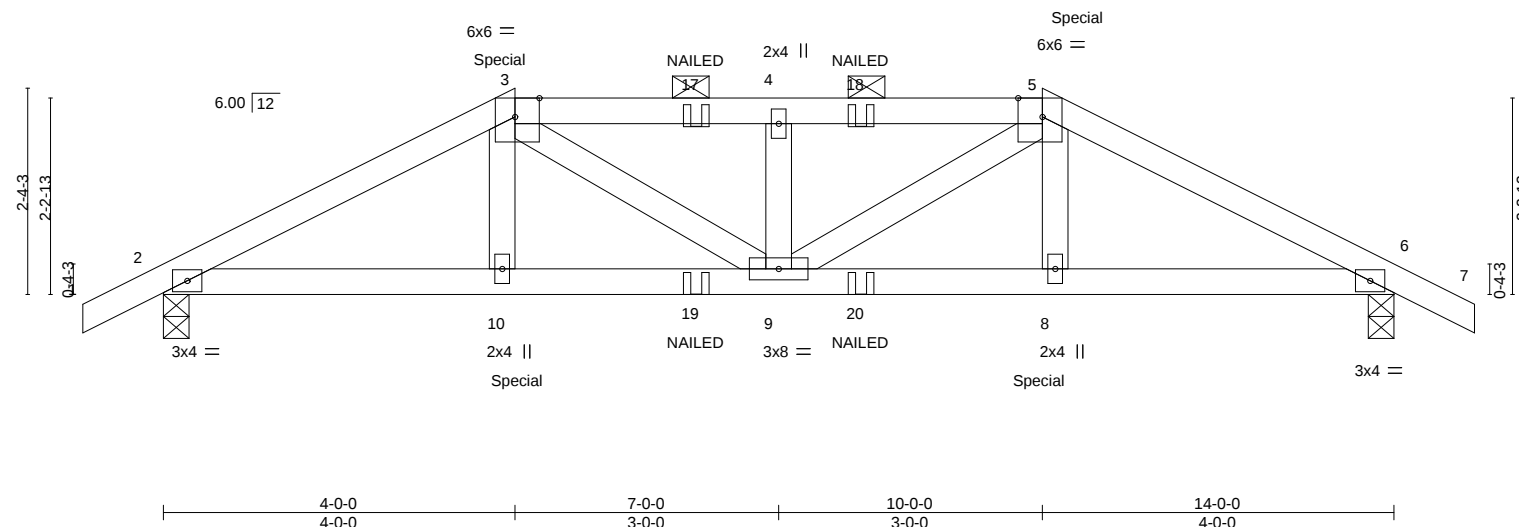


Plate Offsets (X,Y)-- [3:0-3-5,Edge], [5:0-3-5,Edge]		4-0-0 4-0-0		7-0-0 3-0-0		10-0-0 3-0-0		14-0-0 4-0-0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	-0.05	9	>999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.09	9	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.11	Horz(CT)	0.03	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 49 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 4-4-1 oc purlins, except 2-0-0 oc purlins (4-3-6 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 6=0-3-8
Max Horz 2=-37(LC 13)
Max Uplift 2=-185(LC 8), 6=-185(LC 9)
Max Grav 2=967(LC 1), 6=967(LC 1)

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

TOP CHORD 2-3=-1690/319, 3-4=-1796/351, 4-5=-1796/351, 5-6=-1690/319
BOT CHORD 2-10=-261/1473, 9-10=-262/1459, 8-9=-238/1459, 6-8=-236/1473
WEBS 3-9=-101/446, 4-9=-344/137, 5-9=-101/446

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=185, 6=185.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 121 lb up at 4-0-0, and 150 lb down and 121 lb up at 10-0-0 on top chord, and 102 lb down and 33 lb up at 4-0-0, and 102 lb down and 33 lb up at 9-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-70, 3-5=-70, 5-7=-70, 11-14=-20
Concentrated Loads (lb)
Vert: 10=-102(F) 3=-91(F) 5=-91(F) 8=-102(F) 17=-46(F) 18=-46(F) 19=-34(F) 20=-34(F)



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

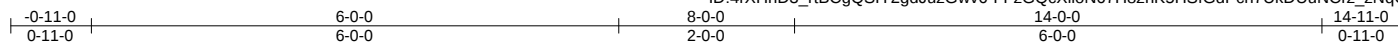
Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	145809185
2766770	E2	Hip	1	1		

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

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:53 2021 Page 1

ID:4rXHhD3_rtbCgQSIY2gdJuzGww6-FFzGQcXiloN67H8zhK5HSfGdPcn7UkDUuNCrz_zNqG4

Job Reference (optional)



Scale = 1:26.2

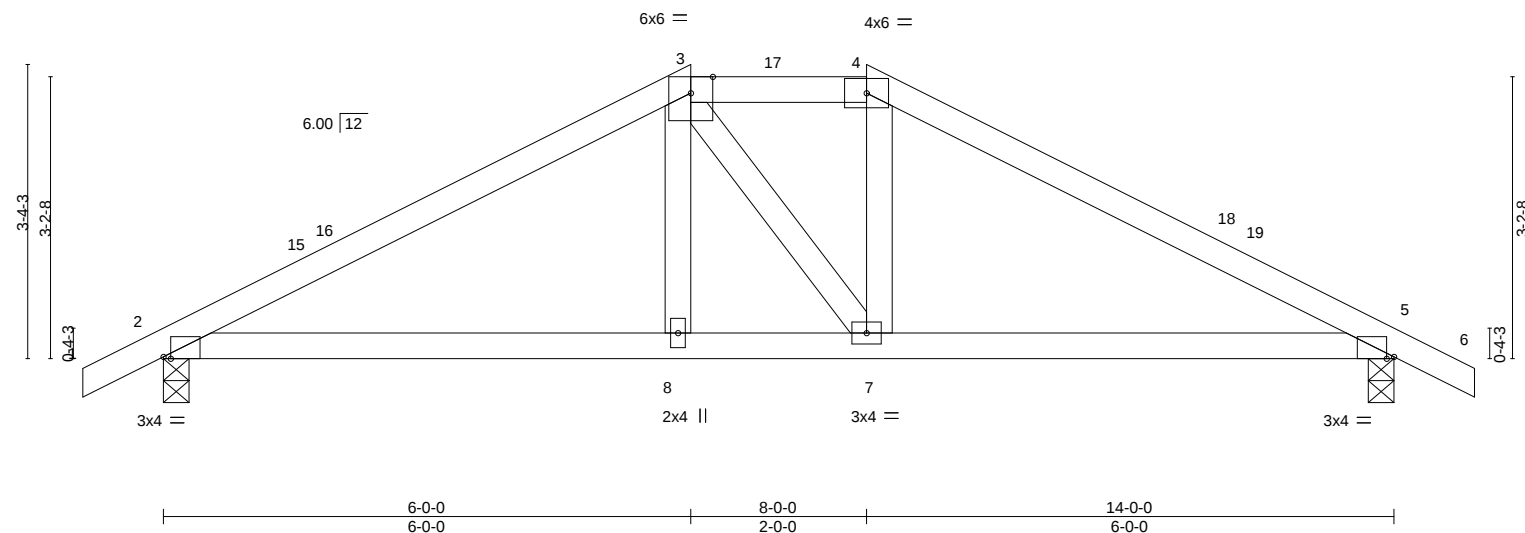


Plate Offsets (X,Y)-- [2:0-1-0,Edge], [5:0-1-0,Edge]		6-0-0 6-0-0		8-0-0 2-0-0		14-0-0 6-0-0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.05 8-11	>999	240
TCDL 10.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.09 8-11	>999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.01 5	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 46 lb	FT = 20%		

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 3-4.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 5=0-3-8
Max Horz 2=-54(LC 17)
Max Uplift 2=-99(LC 12), 5=-99(LC 13)
Max Grav 2=694(LC 1), 5=694(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-954/223, 3-4=-783/249, 4-5=-955/222
BOT CHORD 2-8=-110/787, 7-8=-111/782, 5-7=-113/788

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 6-0-0, Exterior(2E) 6-0-0 to 8-0-0, Exterior(2R) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 14-11-0 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) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

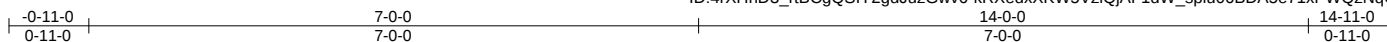
Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809186
2766770	E3	Common	3	1		

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

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ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-kRXedxxKW5VzIqjAF1dW_splu06BDA5e71xPWQzNqG3

Job Reference (optional)



Scale = 1:26.4

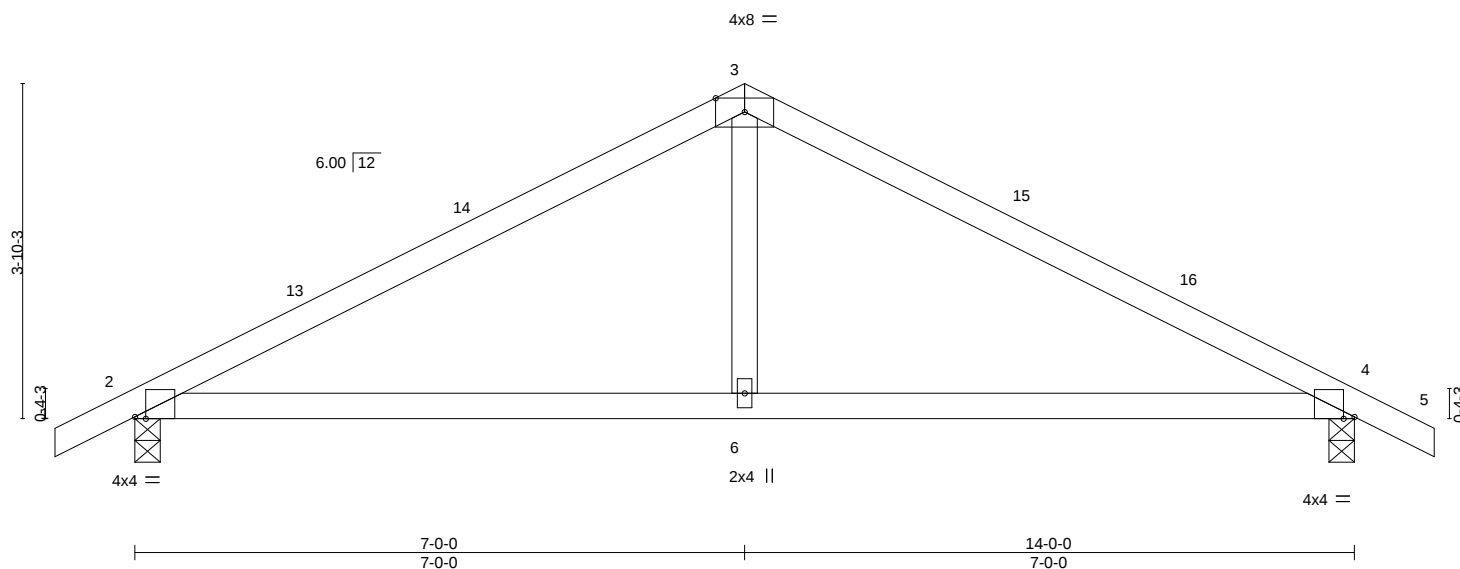


Plate Offsets (X,Y)--		[2:0-1-8,Edge], [4:0-1-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52
TCDL 10.0	Lumber DOL	1.15	BC 0.49
BCLL 0.0	Rep Stress Incr	YES	WB 0.07
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.09 6-9 >999 240
			Vert(CT) -0.15 6-9 >999 180
			Horz(CT) 0.01 4 n/a n/a
			PLATES MT20 GRIP 197/144
			Weight: 40 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, 4=0-3-8
Max Horz 2=63(LC 12)
Max Uplift 2=-97(LC 12), 4=-97(LC 13)
Max Grav 2=694(LC 1), 4=694(LC 1)

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

TOP CHORD 2-3=-907/254, 3-4=-907/254
BOT CHORD 2-6=-105/732, 4-6=-105/732
WEBS 3-6=0/321

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-11-0 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



April 26, 2021

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Chesterfield, MO 63017

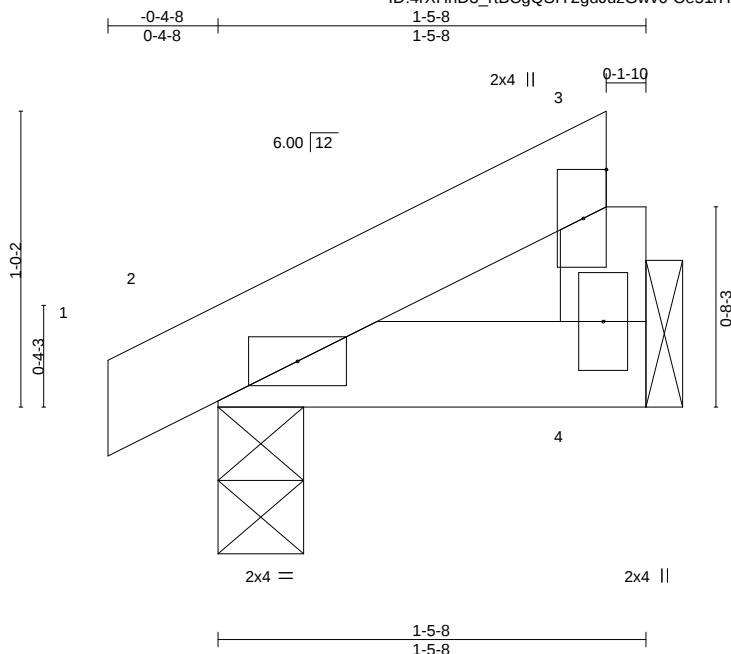
Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809187
2766770	F1	Monopitch	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:55 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-Ce51rHYyHPdqNaHMoI8IX4L1cPYqyeTnMhhy2tzNqG2



Scale = 1:7.9

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

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-5-8 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=29(LC 11)
Max Uplift 4=13(LC 12), 2=-16(LC 12)
Max Grav 4=55(LC 1), 2=89(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) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



April 26, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809188
2766770	J1	Jack-Open	4	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

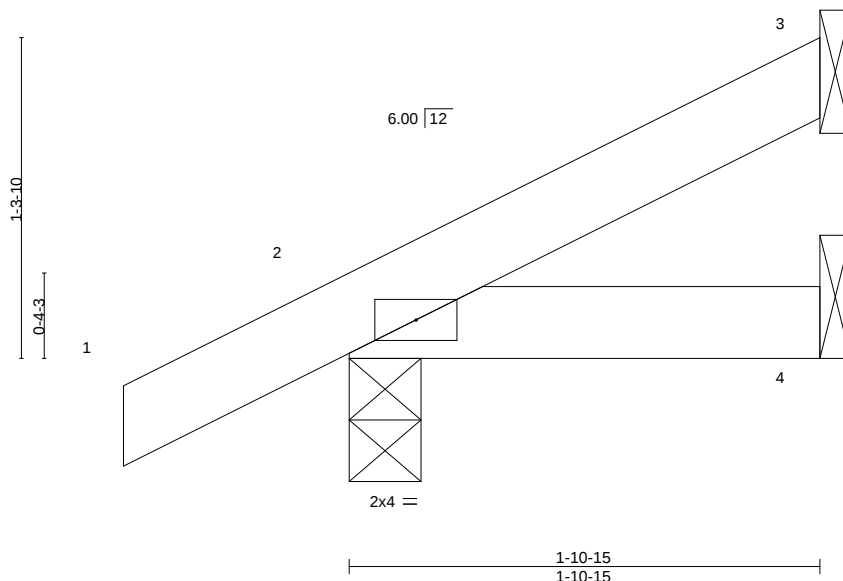
Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:56 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-ggfP2dZa2jhh_ksYMSf_4HuChpuzh5jwaLQVaJzNqG1

0-11-0 1-10-15
0-11-0 1-10-15

Scale = 1:9.4



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 0.06	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 6 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=49(LC 12)
Max Uplift 3=-21(LC 12), 2=-30(LC 12)
Max Grav 3=48(LC 1), 2=165(LC 1), 4=32(LC 3)

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

NOTES-

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



April 26, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2766770	Truss LG1	Truss Type GABLE	Qty 1	Ply 1	Summit/26 Hawthorn I45809189
Job Reference (optional)					

Builders FirstSource (Valley Center),

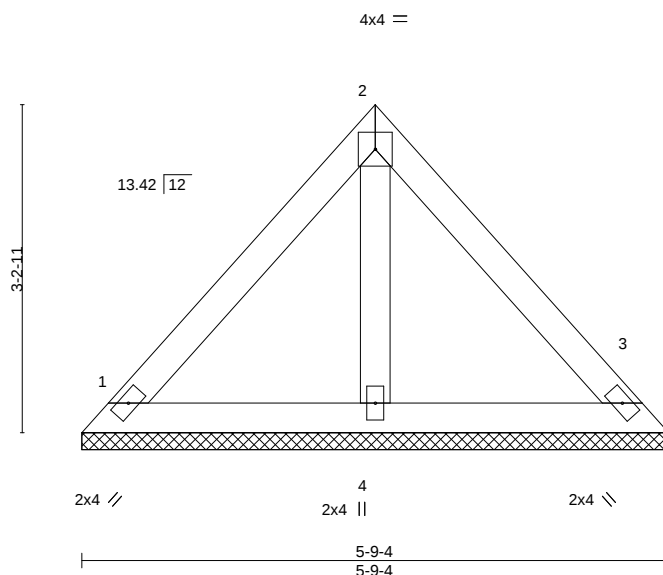
Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:57 2021 Page 1

ID:4rXHhD3_rfBCgQSIY2gdJuzGwv6-80DnGzaCp0tYcuRlw9ADcVRMTDEiQYg4p?A37IzNqG0

2-10-10
2-10-10
5-9-4
2-10-10

Scale = 1:22.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 18 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=5-9-4, 3=5-9-4, 4=5-9-4
Max Horz 1=69(LC 11)
Max Uplift 1=34(LC 13), 3=29(LC 13)
Max Grav 1=144(LC 1), 3=144(LC 1), 4=173(LC 1)

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

NOTES-

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



April 26, 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

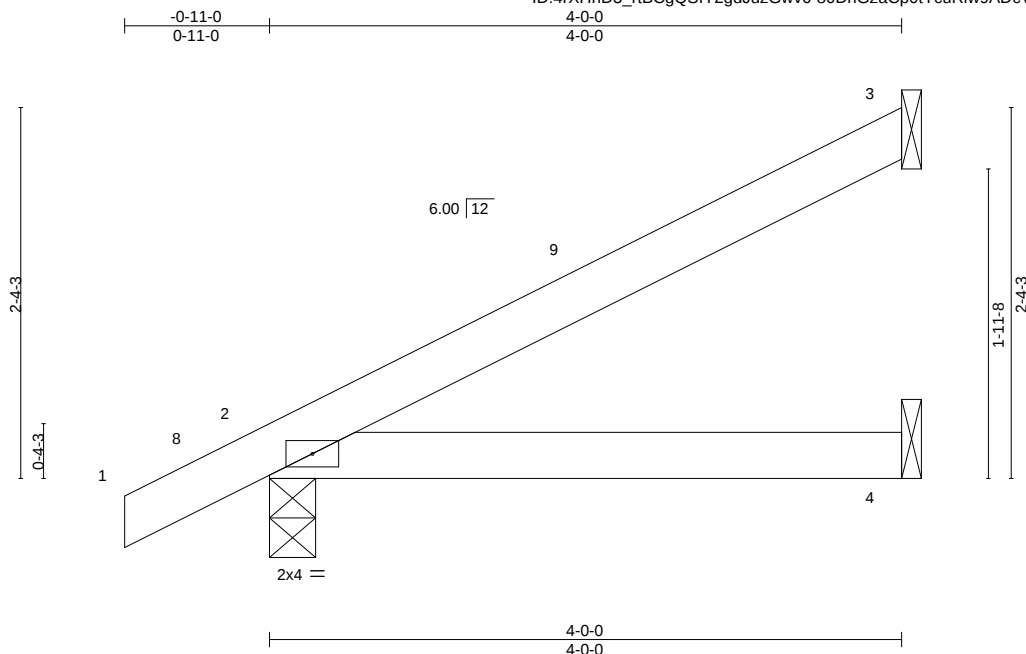
Job 2766770	Truss M1	Truss Type Jack-Open	Qty 4	Ply 1	Summit/26 Hawthorn Job Reference (optional)	I45809190
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:57 2021 Page 1

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Scale = 1:14.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.03	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: 11 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=87(LC 12)
Max Uplift 3=-51(LC 12), 2=-34(LC 12)
Max Grav 3=116(LC 1), 2=249(LC 1), 4=72(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 2-1-0, Interior(1) 2-1-0 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn
2766770	V2	Valley	1	1	I45809192

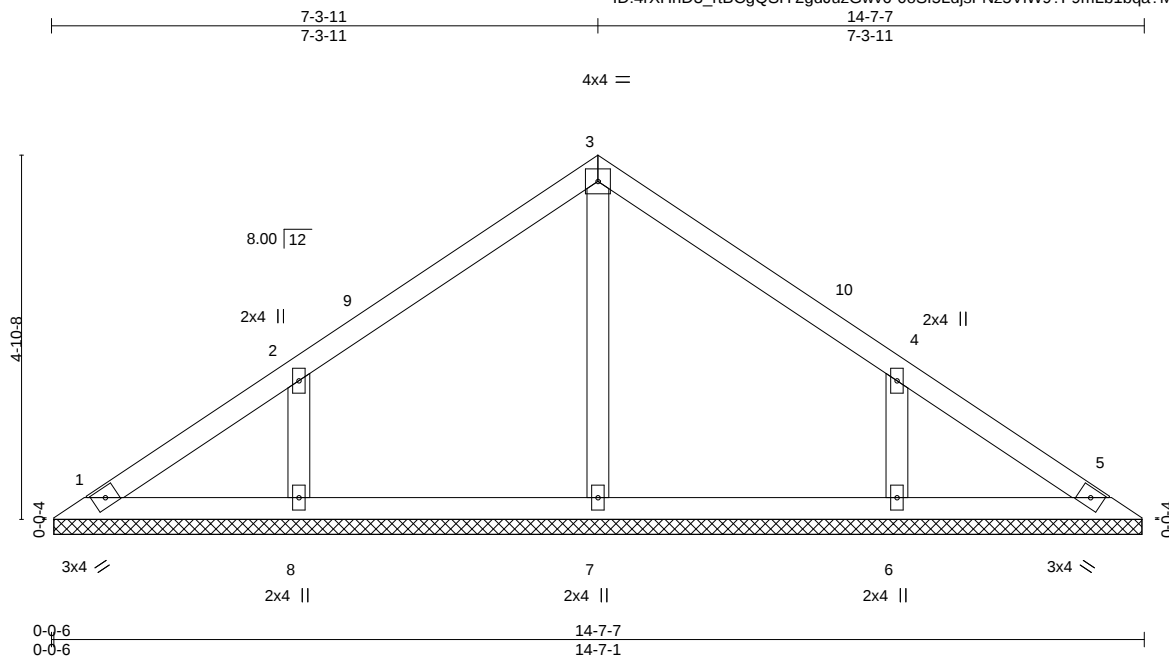
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:01 2021 Page 1

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Job Reference (optional)



Scale = 1:30.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	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 0.08	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 44 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-6-11.

(lb) - Max Horz 1=107(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-137(LC 12), 6=-137(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=292(LC 1), 8=370(LC 19), 6=370(LC 20)

FORCES.

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

WEBS 2-8=-292/166, 4-6=-292/166

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-3-11, Interior(1) 3-3-11 to 7-3-11, Exterior(2R) 7-3-11 to 10-3-11, Interior(1) 10-3-11 to 14-1-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=137, 6=137.
- 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.



April 26, 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

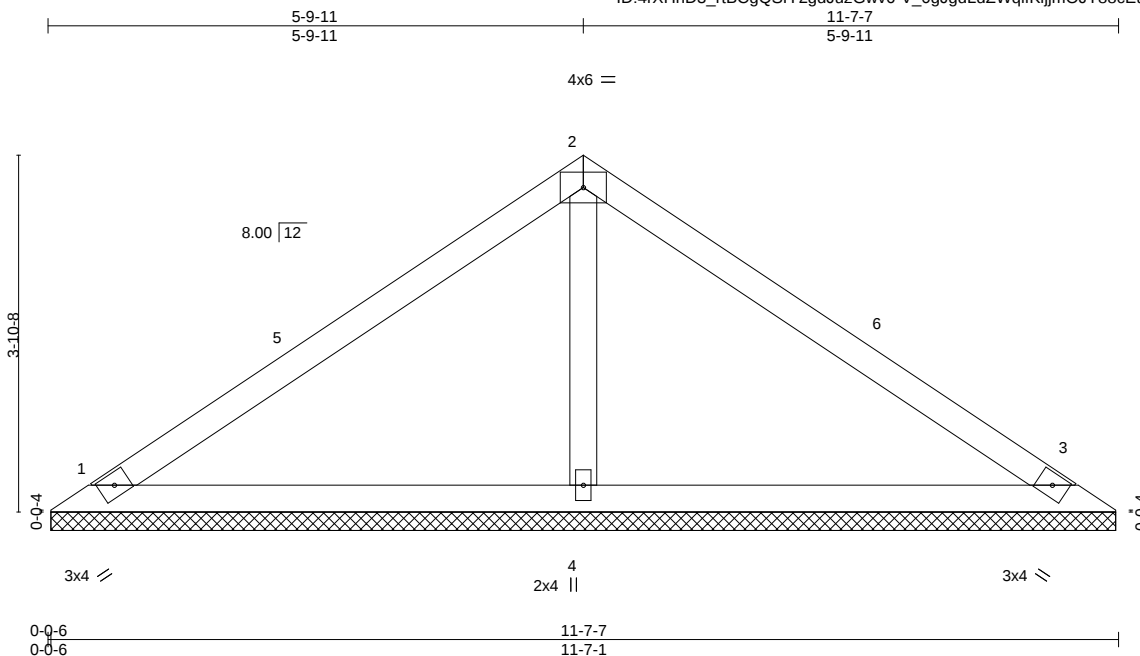


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2766770	Truss V3	Truss Type Valley	Qty 1	Ply 1	Summit/26 Hawthorn Job Reference (optional)	I45809193
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:02 2021 Page 1
ID:4rXHhD3_rtbCgQSIY2gdJuzGww6-V_OgJgdLdZWqifKijimOJY88cEu15o?pzHtqnzzNqFx



Scale = 1:25.0

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.24	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 32 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=11-6-11, 3=11-6-11, 4=11-6-11
Max Horz 1=-83(LC 8)
Max Uplift 1=-41(LC 12), 3=-52(LC 13), 4=-30(LC 12)
Max Grav 1=236(LC 1), 3=236(LC 1), 4=488(LC 1)

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

WEBS 2-4=-325/103

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-9-11, Exterior(2R) 5-9-11 to 8-9-11, Interior(1) 8-9-11 to 11-1-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 2021

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2766770	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/26 Hawthorn 145809194
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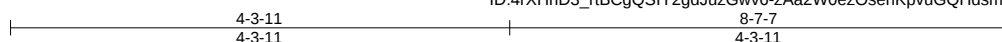
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

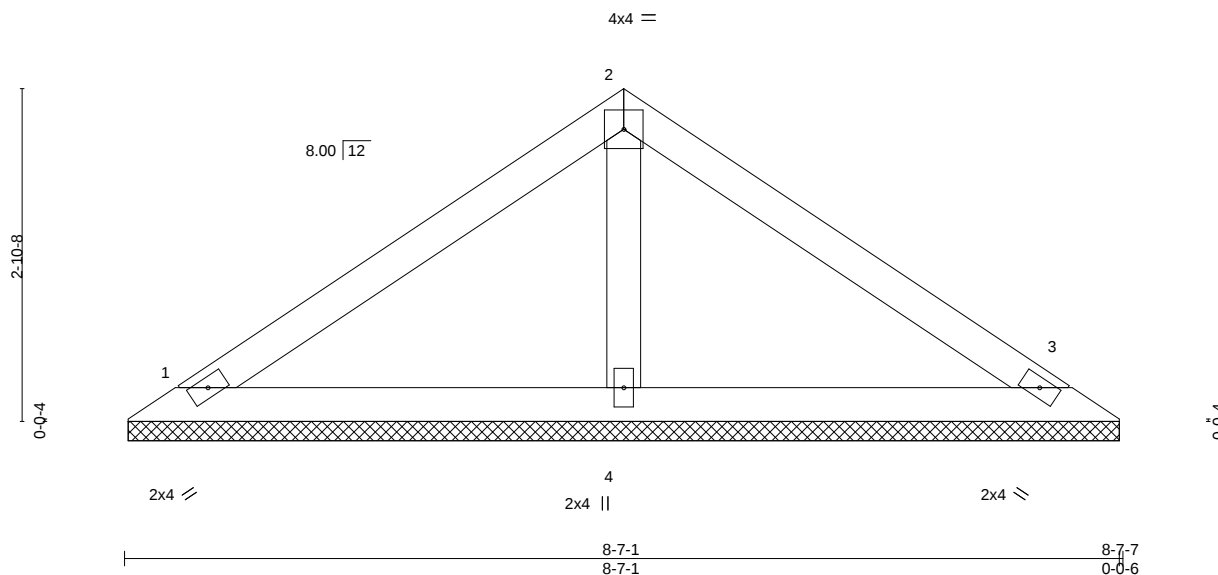
8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:03 2021 Page 1

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Job Reference (optional)



Scale = 1:19.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 23 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-6-11, 3=8-6-11, 4=8-6-11
Max Horz 1=60(LC 9)
Max Uplift 1=-37(LC 12), 3=-45(LC 13), 4=-6(LC 12)
Max Grav 1=186(LC 1), 3=186(LC 1), 4=316(LC 1)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-3-11, Exterior(2R) 4-3-11 to 7-3-11, Interior(1) 7-3-11 to 8-1-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



April 26, 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

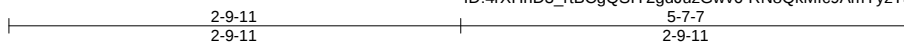
Job 2766770	Truss V5	Truss Type Valley	Qty 1	Ply 1	Summit/26 Hawthorn I45809195
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Builders FirstSource (Valley Center),

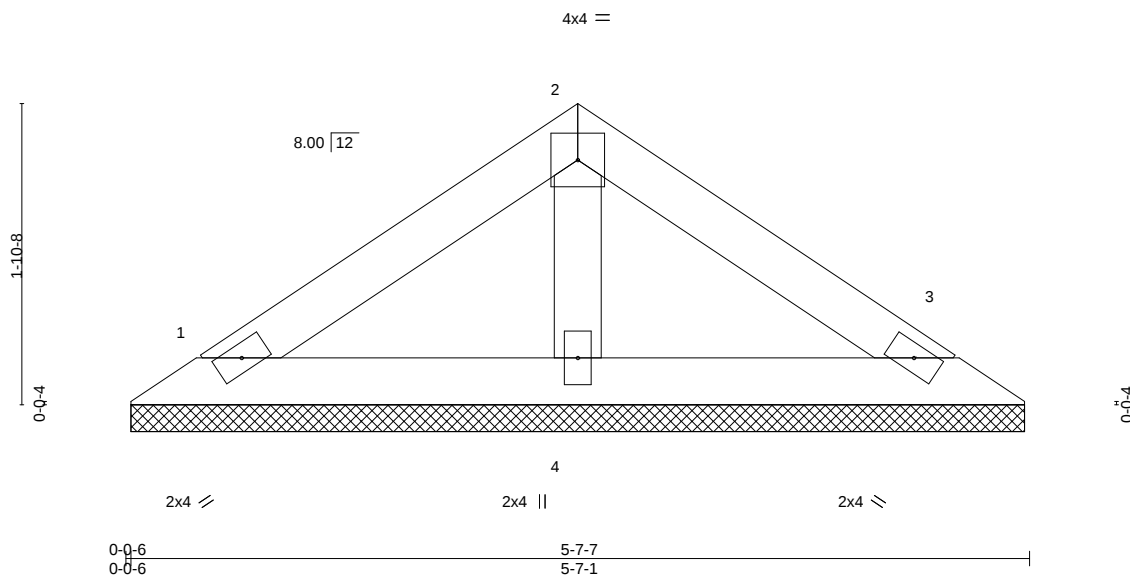
Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:04 2021 Page 1

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Scale = 1:14.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=5-6-11, 3=5-6-11, 4=5-6-11
Max Horz 1=36(LC 9)
Max Uplift 1=-23(LC 12), 3=-28(LC 13), 4=-4(LC 12)
Max Grav 1=113(LC 1), 3=113(LC 1), 4=192(LC 1)

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

NOTES-

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



April 26, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

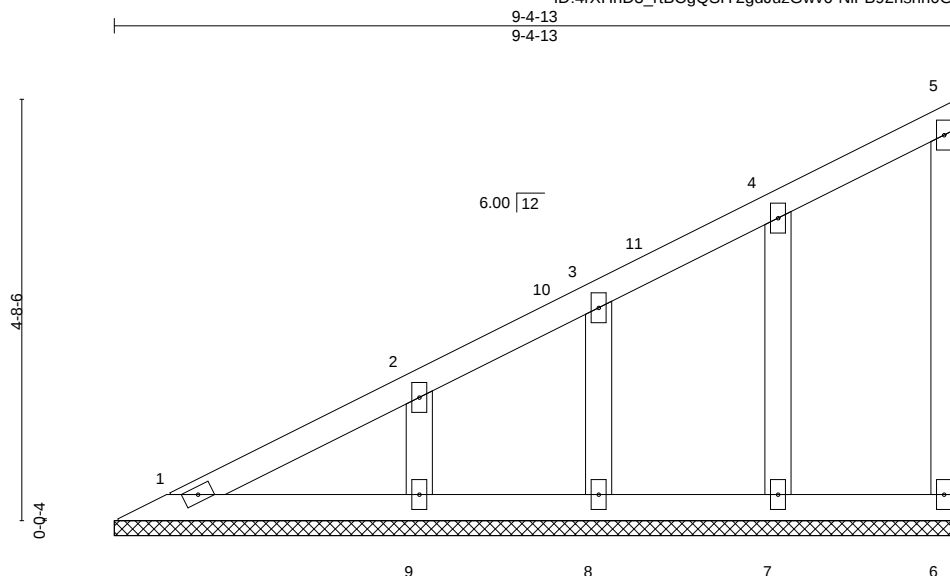
Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809196
2766770	V6	GABLE	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:06 2021 Page 1

ID:4rXHhD3_rTBcgQSIY2gdJuzGww6-NIFB92hshn0GBGdTyYqKTOJvYrJv1cgPuvr1wkzNqFt



Scale = 1:25.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 34 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 9-4-13.

(lb) - Max Horz 1=161(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 6, 7, 8, 9

Max Grav All reactions 250 lb or less at joint(s) 1, 6, 7, 8 except 9=260(LC 1)

FORCES.

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

TOP CHORD 1-2=-251/157

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) gable end zone and C-C Exterior(2E) 0-7-9 to 3-4-13, Interior(1) 3-4-13 to 9-3-1 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) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7, 8, 9.
- 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.



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Chesterfield, MO 63017

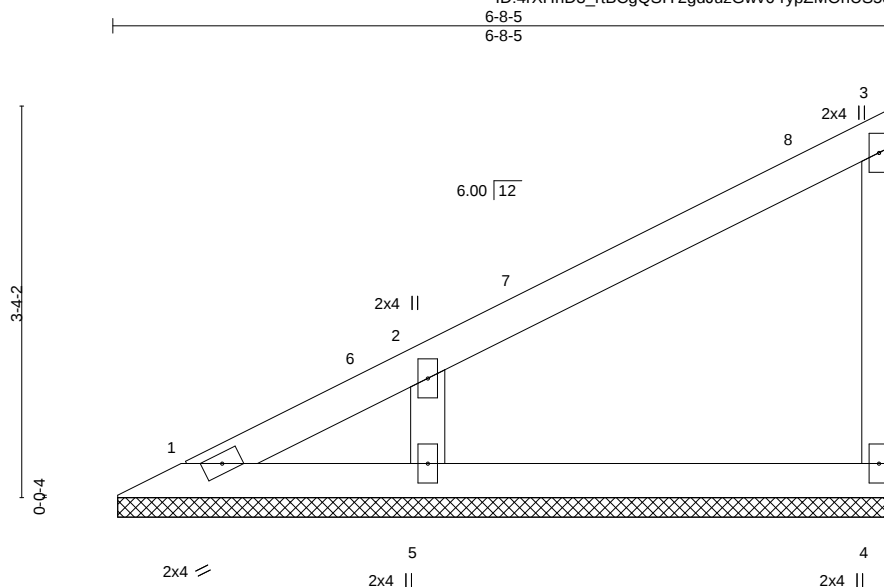
Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn
2766770	V7	Valley	1	1	I45809197
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:07 2021 Page 1

ID:4rXHhD3_rBCgQSIY2gdJuzGwv6-rypZMOhUS587pQCgVGLZ0cr3yFeOm3oY6ZbbSAzNqFs



Scale = 1:19.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	4	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 19 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=6-7-13, 4=6-7-13, 5=6-7-13
Max Horz 1=111(LC 9)
Max Uplift 4=-23(LC 12), 5=-101(LC 12)
Max Grav 1=51(LC 20), 4=141(LC 1), 5=359(LC 1)

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

WEBS 2-5=-279/236

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) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 6-6-9 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=101.
- 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.



April 26, 2021

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

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Chesterfield, MO 63017

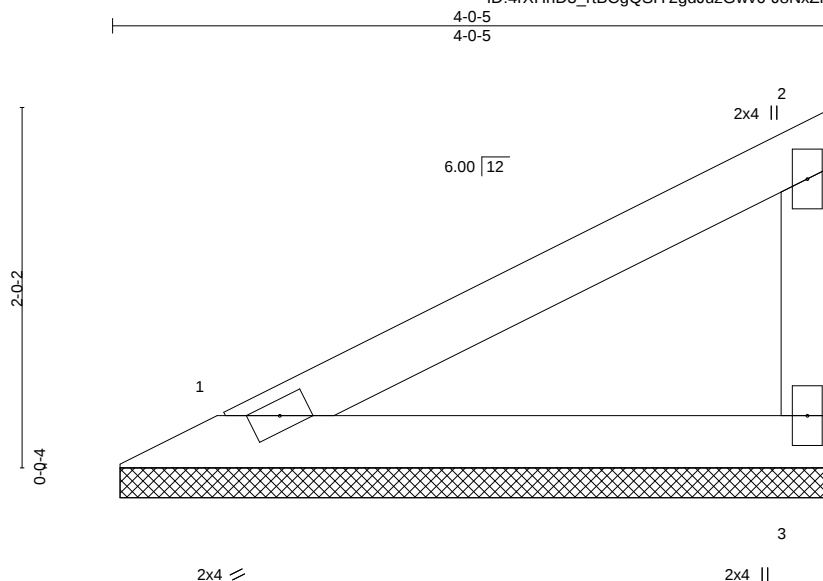
Job 2766770	Truss V8	Truss Type Valley	Qty 1	Ply 1	Summit/26 Hawthorn Job Reference (optional)	I45809198
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:08 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-J8NxZki6DPG_Qans3ztoZpOEafzZVWhhLDK8_czNqFr



Scale = 1:12.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	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 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 10 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-5 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=3-11-13, 3=3-11-13

Max Horz 1=61(LC 9)

Max Uplift 1=-19(LC 12), 3=-34(LC 12)

Max Grav 1=146(LC 1), 3=146(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) 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.



April 26, 2021

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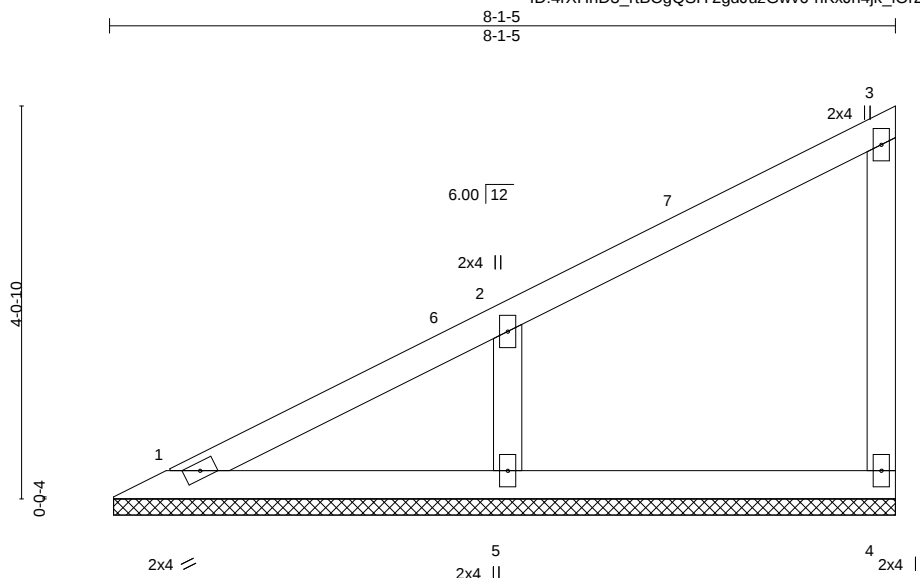
Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn	I45809199
2766770	V9	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:09 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-nKxJn4jk_iOr2kM2dhO151wOs3JdEzGrat4hX3zNqFq



Scale: 1/2"=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 0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 24 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-0-13, 4=8-0-13, 5=8-0-13
Max Horz 1=137(LC 9)
Max Uplift 4=-25(LC 9), 5=-107(LC 12)
Max Grav 1=117(LC 20), 4=134(LC 1), 5=413(LC 1)

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

WEBS 2-5=-321/235

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) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-11-9 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=107.
- 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.



April 26, 2021

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

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Chesterfield, MO 63017

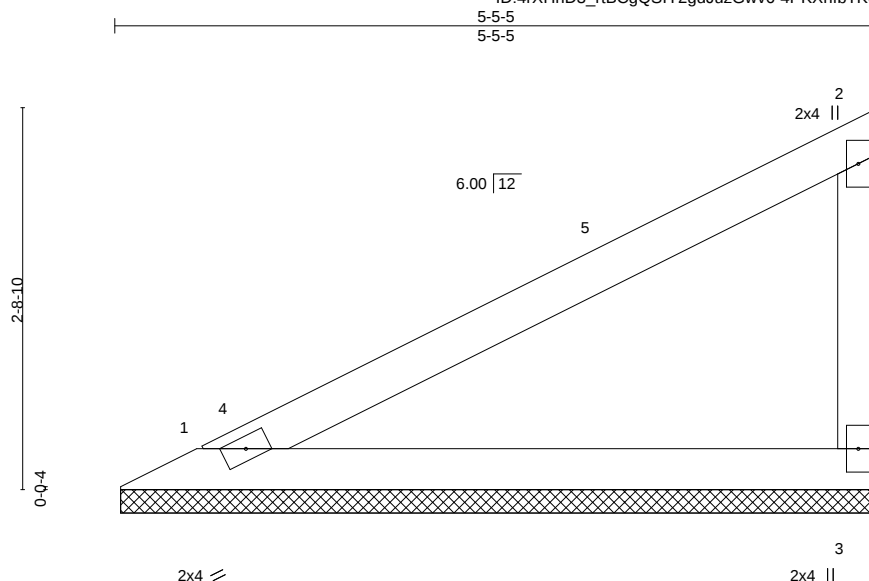
Job	Truss	Truss Type	Qty	Ply	Summit/26 Hawthorn
2766770	V10	Valley	1	1	I45809200
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:07:59 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-4PKXhfbTKe7GrCb71aChhwWdJ1tYuSSNHJfABezNqG_



Scale = 1:16.4

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 0.42	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 0.00	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 5-5-5 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=5-4-13, 3=5-4-13

Max Horz 1=87(LC 9)

Max Uplift 1=-27(LC 12), 3=-49(LC 12)

Max Grav 1=210(LC 1), 3=210(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) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-3-9 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.



April 26, 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 2766770	Truss V11	Truss Type Valley	Qty 1	Ply 1	Summit/26 Hawthorn Job Reference (optional)	I45809201
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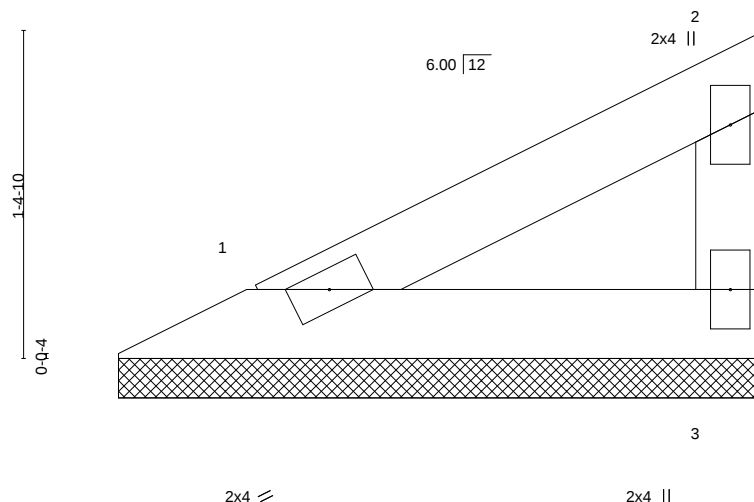
Valley Center, KS - 67147,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:08:00 2021 Page 1

ID:4rXHhD3_rtBCgQSIY2gdJuzGwv6-Ybuwu?c55xF6TLAKbljwE73tXQGkdviWVzOji4zNqFz

2-9-5
2-9-5

Scale = 1:9.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 7 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-5 oc purlins, except end verticals.

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

REACTIONS.

(size) 1=2-8-13, 3=2-8-13

Max Horz 1=38(LC 9)

Max Uplift 1=-11(LC 12), 3=-21(LC 12)

Max Grav 1=90(LC 1), 3=90(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) 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.



April 26, 2021

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

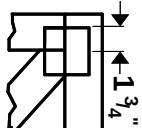
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



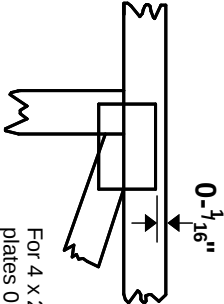
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{3}{16}$ " from outside edge of truss.

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

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

PLATE SIZE

4 X 4

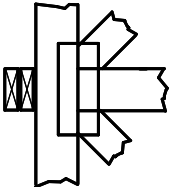
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



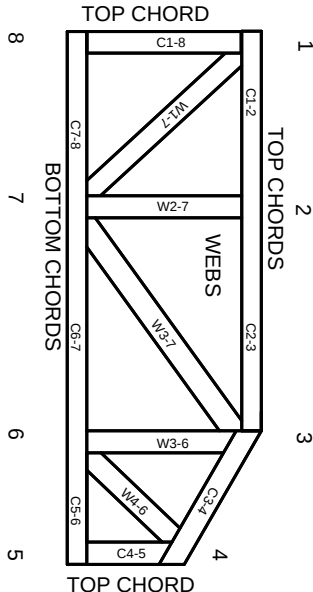
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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