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

12/14/2020

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

RE: P200462-P200462-02 - Roof

Site Information:

Project Customer: Cardinal Crest Homes Project Name: Scout 3 Bedroom Pergola Park
Lot/Block: Subdivision: Pergola Park
Model:
Address: 1036 Southwest Armie Street
City: Lee's Summit State: MO

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.3
Wind Code: N/A Wind Speed: 115 mph Design Method: User defined
Roof Load: 45.0 psf Floor Load: N/A psf

Mean Roof Height (feet): 35 Exposure Category: C

No.	Seal#	Truss Name	Date
1	I43609391	A1	11/13/20
2	I43609392	A2	11/13/20
3	I43609393	A3	11/13/20
4	I43609394	C1	11/13/20
5	I43609395	C2	11/13/20
6	I43609396	C3	11/13/20
7	I43609397	D1	11/13/20
8	I43609398	E1	11/13/20
9	I43609399	E2	11/13/20
10	I43609400	E3	11/13/20
11	I43609401	E4	11/13/20
12	I43609402	E5	11/13/20
13	I43609403	E6	11/13/20
14	I43609404	E7	11/13/20
15	I43609405	E8	11/13/20
16	I43609406	F1	11/13/20
17	I43609407	F2	11/13/20
18	I43609408	G1	11/13/20
19	I43609409	G2	11/13/20
20	I43609410	HG1	11/13/20
21	I43609411	J1	11/13/20
22	I43609412	J2	11/13/20
23	I43609413	V1	11/13/20
24	I43609414	V2	11/13/20
25	I43609415	V3	11/13/20
26	I43609416	V4	11/13/20

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Premier Building Supply (Springhill, KS)20300 W 207th Street.

Truss Design Engineer's Name: Sevier, Scott
My license renewal date for the state of Missouri is December 31, 2021.

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.

November 13,2020
Sevier, Scott

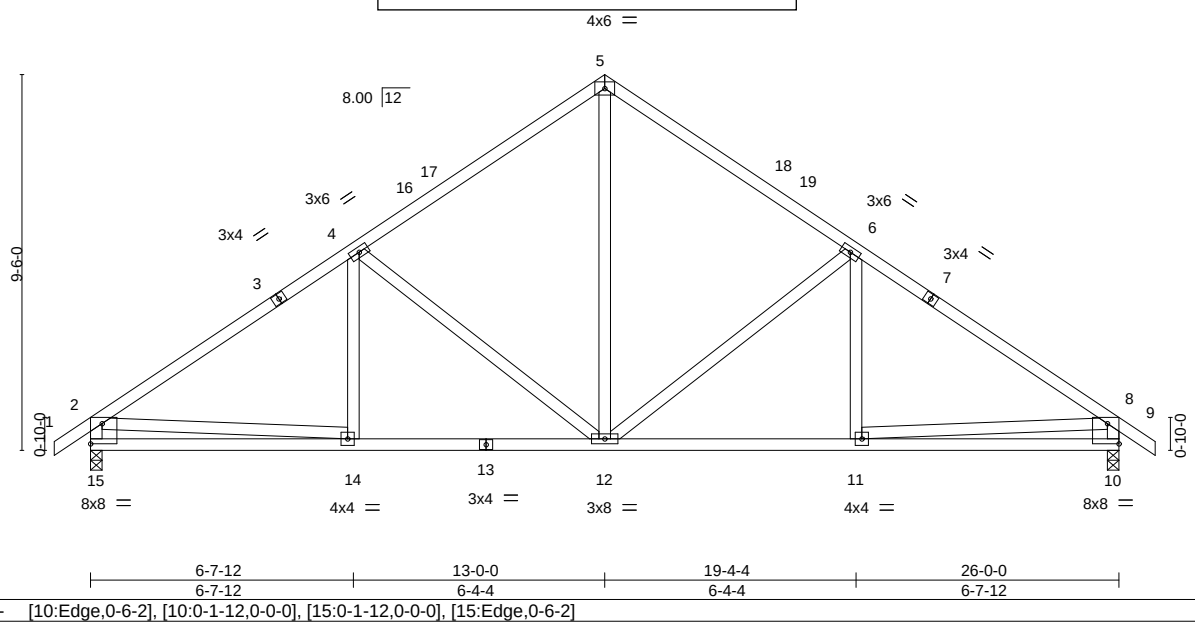
Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	A1	Common	1	1	I43609391

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:38 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-GLzu8LGM1CLnlcxGK4yv8nsp?jc5u4sClekwCXyJuMN

-0-11-0 6-7-12 13-0-0 19-4-4 26-0-0 26-11-0
0-11-0 6-7-12 6-4-4 6-4-4 6-7-12 0-11-0

Scale = 1:58.2



6-7-12 13-0-0 19-4-4 26-0-0
6-7-12 6-4-4 6-4-4 6-7-12

Plate Offsets (X,Y)-- [10:Edge,0-6-2], [10:0-1-12,0-0-0], [15:0-1-12,0-0-0], [15:Edge,0-6-2]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.05	11-12	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.11	11-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.03	10	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 122 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 4-2-2 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 15=0-3-8, 10=0-3-8
Max Horz 15=-275(LC 14)
Max Uplift 15=-172(LC 16), 10=-172(LC 17)
Max Grav 15=1231(LC 2), 10=1231(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1558/213, 4-5=-1129/255, 5-6=-1129/255, 6-8=-1558/213, 2-15=-1167/214, 8-10=-1167/214
BOT CHORD 14-15=-285/577, 12-14=-195/1225, 11-12=-64/1194, 10-11=-147/392
WEBS 5-12=-117/700, 6-12=-512/241, 4-12=-513/241, 2-14=0/813, 8-11=0/813

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-1-0, Interior(1) 3-1-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-0-0, Interior(1) 17-0-0 to 26-11-0 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 10. This connection is for uplift only and does not consider lateral forces.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

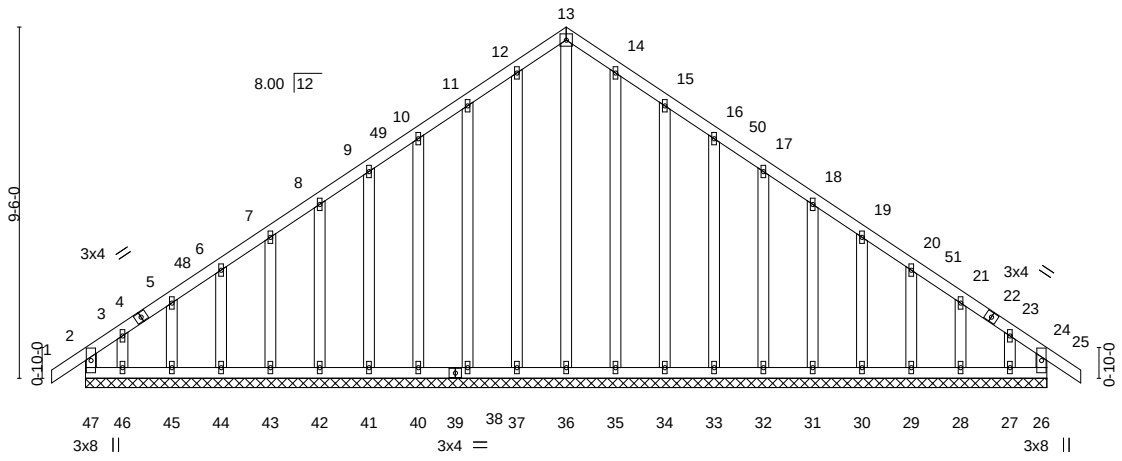
Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	A2	Common Supported Gable	1	2	I43609392

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:40 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-Cj5fZ0IcYpbV?w4fSU_NDCxKiXPwM7VVmyD1HQyJuML

-0-11-0 13-0-0 26-0-0 26-11-0
0-11-0 13-0-0 13-0-0 0-11-0

Scale = 1:62.3



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	25	n/r	120	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	25	n/r	90		
TCDL	10.0	Rep Stress Incr	NO	WB	0.09	Horz(CT)	0.00	26	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 344 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3
OTHERS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 26-0-0.
(lb) - Max Horz 47=-275(LC 14)
Max Uplift All uplift 100 lb or less at joint(s) 26, 37, 38, 40, 41, 42, 43, 44, 45, 35, 34, 33, 32, 31, 30, 29, 28 except 47=-172(LC 12), 46=-188(LC 16), 27=-160(LC 17)
Max Grav All reactions 250 lb or less at joint(s) 26, 36, 37, 38, 40, 41, 42, 43, 44, 45, 46, 35, 34, 33, 32, 31, 30, 29, 28, 27 except 47=263(LC 31)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-153/256, 12-13=-165/278, 13-14=-165/278, 14-15=-153/256

NOTES-
1) 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.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 3-1-0, Exterior(2N) 3-1-0 to 13-0-0, Corner(3R) 13-0-0 to 17-0-0, Exterior(2N) 17-0-0 to 26-11-0 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
5) 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.
6) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
7) Unbalanced snow loads have been considered for this design.
8) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
9) All plates are 1.5x4 MT20 unless otherwise indicated.
10) Gable requires continuous bottom chord bearing.
11) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
12) Gable studs spaced at 1-4-0 oc.
13) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
14) N/A

November 13,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	A2	Common Supported Gable	1	2	I43609392

Job Reference (optional)

NOTES-

15) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

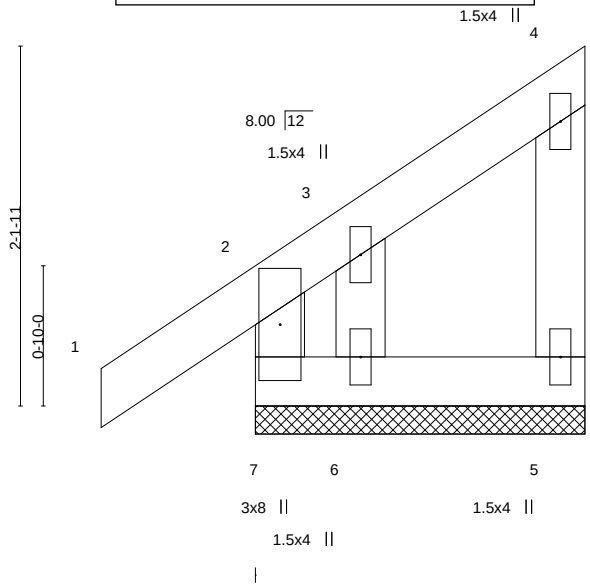
Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	A3	Monopitch Supported Gable	2	1	I43609393

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:41 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-gwf1mMIEJ7jMd4fr?CVcmQUTewkb5bLe?czapsyJuMK

-0-11-0 1-11-8
0-11-0 1-11-8

Scale = 1:13.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	0.00	1	n/r	120	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	1	n/r	90		
TCDL	10.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 9 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.3
OTHERS	2x4 SPF No.3

BRACING-

TOP CHORD	Sheathed or 1-11-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 7=1-11-8, 5=1-11-8, 6=1-11-8
Max Horz 7=83(LC 13)
Max Uplift 7=-41(LC 12), 5=-17(LC 13), 6=-67(LC 22)
Max Grav 7=221(LC 22), 5=57(LC 23), 6=79(LC 14)

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) N/A
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

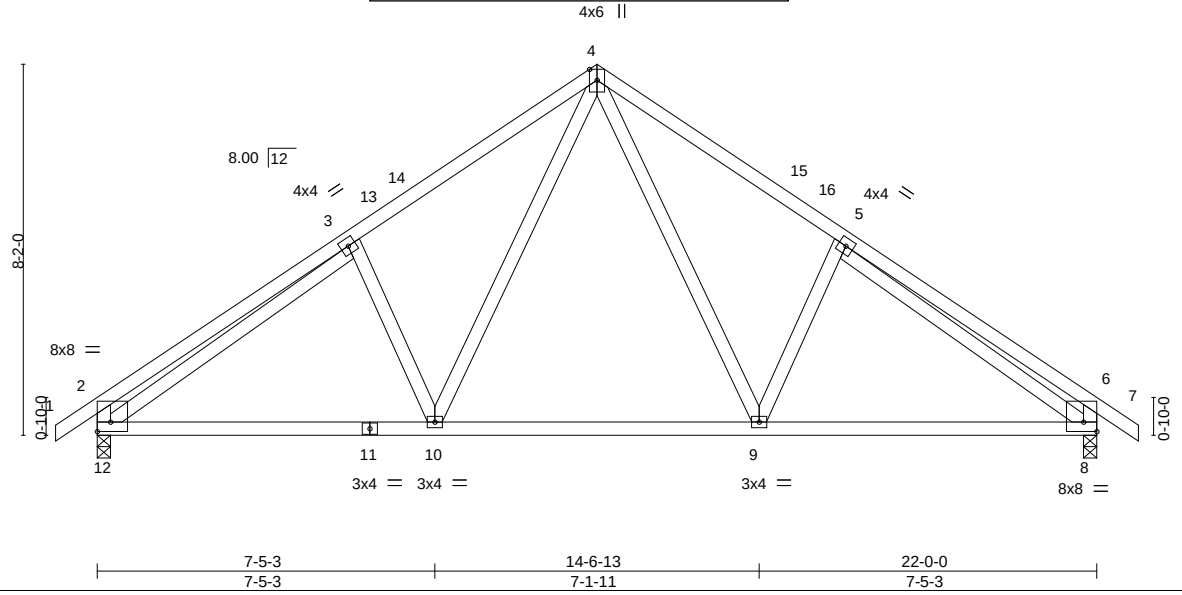
Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	C1	Common	15	1	I43609394

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:42 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-86DP_iJt4QrCEEE2Zv0rld0Y_K_KqscnDGi7LIyJuMJ

-0-11-0 5-7-12 11-0-0 16-4-4 22-0-0 22-11-0
0-11-0 5-7-12 5-4-4 5-4-4 5-7-12 0-11-0

Scale = 1:50.7



7-5-3 14-6-13 22-0-0
7-5-3 7-1-11 7-5-3

Plate Offsets (X,Y)-- [2:0-1-12,0-1-3], [2:Edge,0-2-8], [6:0-1-12,0-1-3], [8:Edge,0-2-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.61	Vert(LL)	-0.07	8-9	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.14	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.81	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 103 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 4-9-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-3-8, 8=0-3-8
Max Horz 12=239(LC 15)
Max Uplift 12=-149(LC 16), 8=-149(LC 17)
Max Grav 12=1051(LC 2), 8=1051(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-491/196, 3-4=-1146/262, 4-5=-1146/262, 5-6=-491/196, 2-12=-477/199, 6-8=-477/199
BOT CHORD 10-12=-170/999, 9-10=-7/678, 8-9=-62/968
WEBS 4-9=-153/479, 5-9=-314/251, 4-10=-153/478, 3-10=-314/251, 3-12=-847/55, 5-8=-847/55

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-1-0, Interior(1) 3-1-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-0-0, Interior(1) 15-0-0 to 22-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 8. This connection is for uplift only and does not consider lateral forces.
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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	C2	ROOF SPECIAL	4	1	I43609395

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:44 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-5VK9POL7c25wUXOQhK3JO26zF8a0IrU4haBEQByJuMH

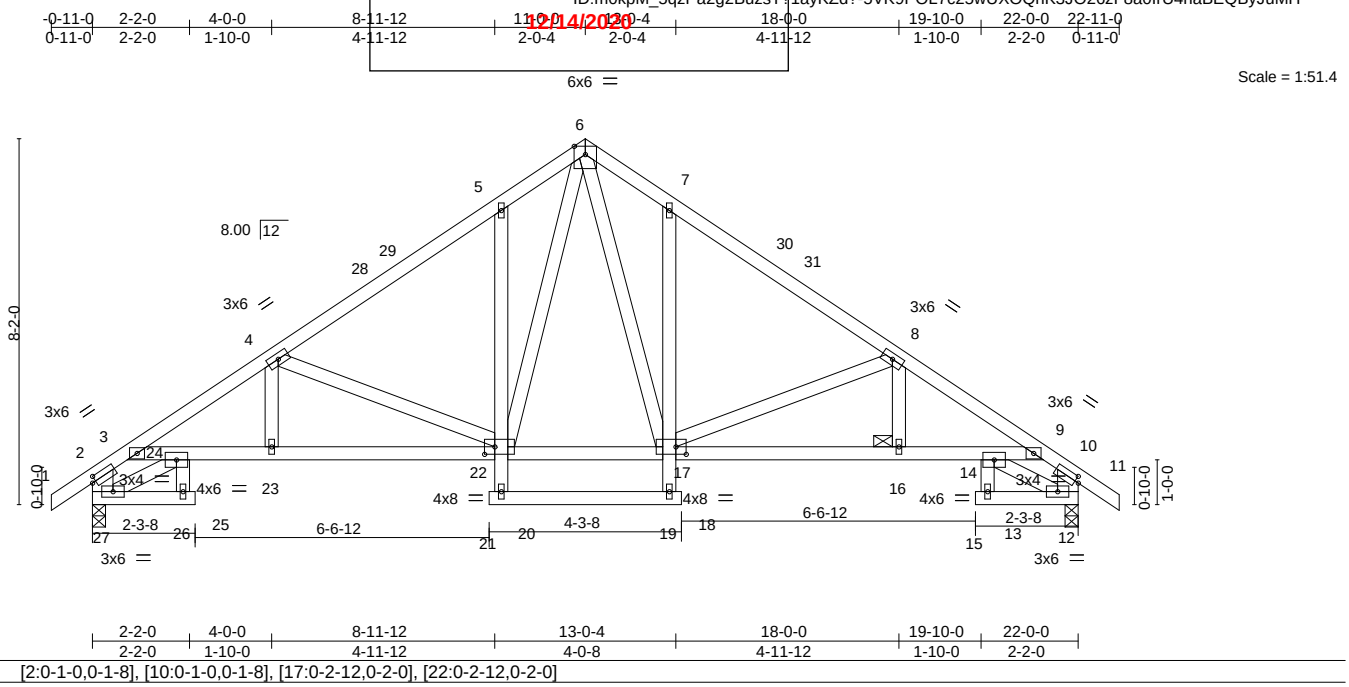


Plate Offsets (X,Y)-- [2:0-1-0,0-1-8], [10:0-1-0,0-1-8], [17:0-2-12,0-2-0], [22:0-2-12,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.06	5	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.11	22-23	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.14	12	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 129 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 24-26,5-20,7-19,13-14: 2x4 SPF No.3
WEBS	2x4 SPF No.3 *Except* 2-27,10-12: 2x6 SPF No.2

BRACING-

TOP CHORD	Sheathed or 5-11-1 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 20-22, 17-19, 16-17, 14-16
JOINTS	1 Brace at Jt(s): 16

REACTIONS. (size) 27=0-3-8, 12=0-3-8
Max Horz 27=-241(LC 14)
Max Uplift 27=-143(LC 16), 12=-143(LC 17)
Max Grav 27=1060(LC 2), 12=1060(LC 2)

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

TOP CHORD	2-3=-893/150, 3-4=-1781/259, 4-5=-1219/190, 5-6=-1159/300, 6-7=-1159/292, 7-8=-1219/197, 8-9=-1781/190, 9-10=-893/107, 2-27=-1179/225, 10-12=-1179/166
BOT CHORD	3-24=-113/1101, 23-24=-268/1549, 22-23=-268/1549, 5-22=-372/201, 7-17=-372/203, 16-17=-84/1475, 14-16=-84/1475, 9-14=-84/1101
WEBS	6-17=-227/701, 8-17=-594/182, 6-22=-240/701, 4-22=-661/228, 4-23=0/291, 8-16=0/291, 17-22=0/731, 24-27=-167/420, 12-14=-16/283

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-1-0, Interior(1) 3-1-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-0-0, Interior(1) 15-0-0 to 22-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) All plates are 1.5x4 MT20 unless otherwise indicated.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 27 and 12. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	C3	Common Supported Gable	1	1	I43609396

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:45 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-ZhuYckMlNLDn5hzdE2aYwGeAfY5h1KjEvExoydyJuMG

-0-11-0 11-0-0 22-0-0 22-11-0
0-11-0 11-0-0 11-0-0 0-11-0

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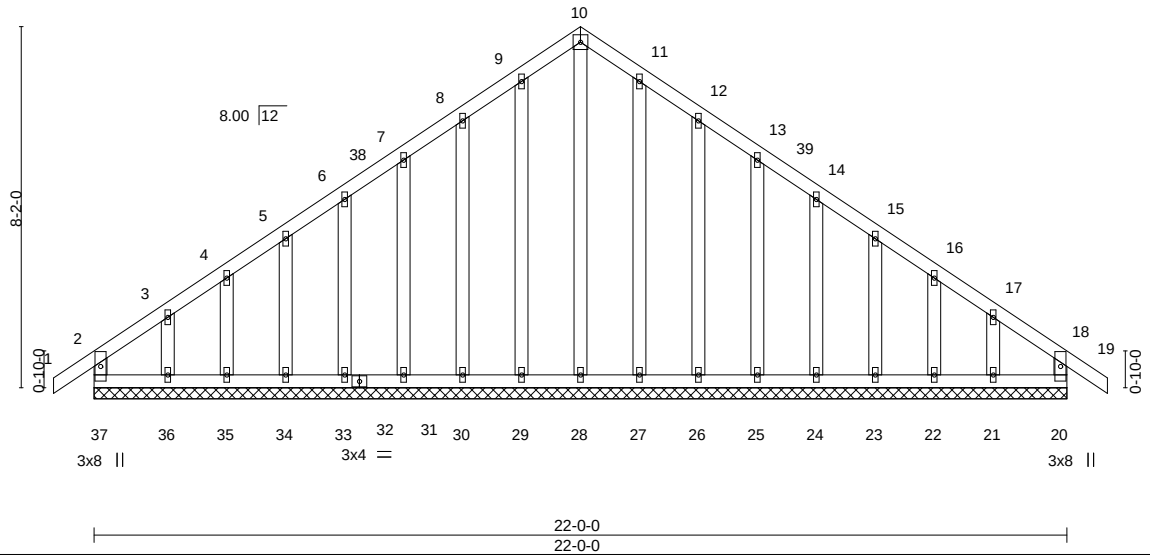

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	19	n/r	120	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	19	n/r	90		
TCDL	10.0	Rep Stress Incr	NO	WB	0.28	Horz(CT)	0.00	20	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 133 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.3
OTHERS	2x4 SPF No.3

BRACING-

TOP CHORD	Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 22-0-0.
(lb) - Max Horz 37=239(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 20, 29, 30, 31, 33, 34, 35, 27, 26, 25, 24, 23, 22 except 37=-102(LC 12), 36=-133(LC 16), 21=-119(LC 17)
Max Grav All reactions 250 lb or less at joint(s) 37, 20, 28, 29, 30, 31, 33, 34, 35, 36, 27, 26, 25, 24, 23, 22, 21

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-151/268, 10-11=-151/268

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-11-0 to 3-0-0, Exterior(2N) 3-0-0 to 11-0-0, Corner(3R) 11-0-0 to 15-0-0, Exterior(2N) 15-0-0 to 22-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 1-4-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) N/A
13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	D1	Common Girder	1	2	I43609397

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:48 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-zGagElOdgGbMy9hBwA7FYuGZmlxuEYYgcC9SZyyJuMD

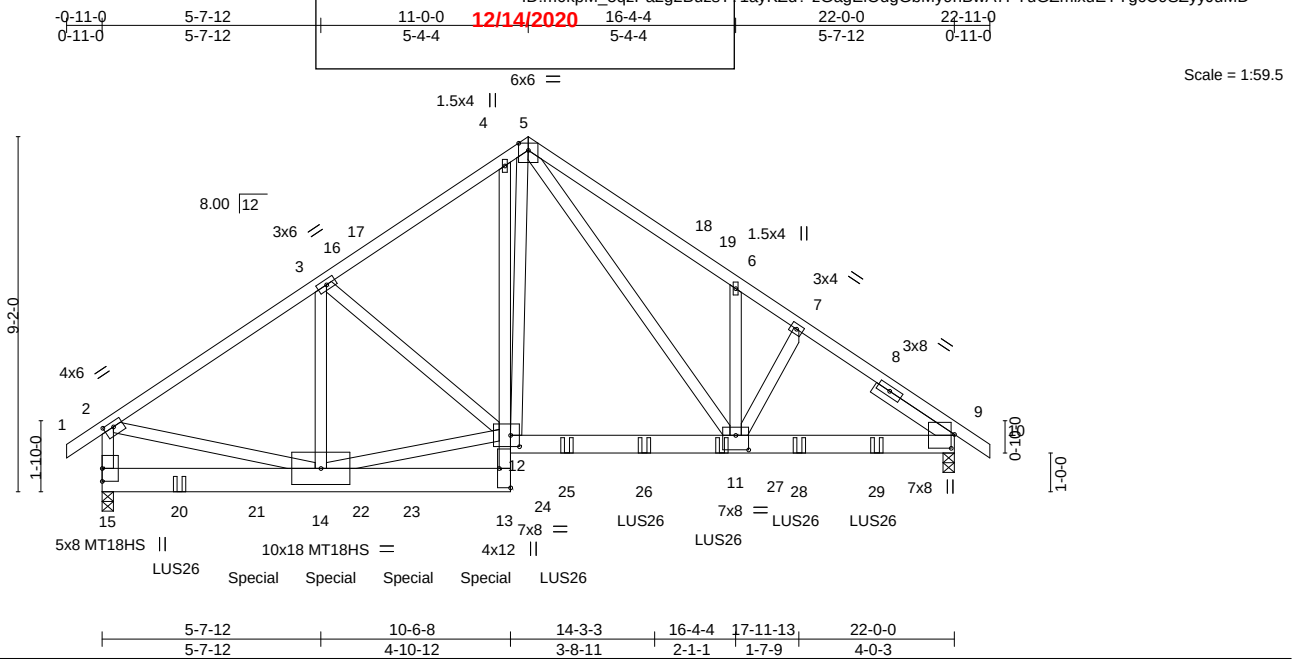

Plate Offsets (X,Y)-- [2:0-3-0,0-1-8], [9:0-4-5,0-1-0], [11:0-4-0,0-4-8], [12:0-2-12,0-3-8], [13:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.66	Vert(LL)	-0.13	11-12	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.87	Vert(CT)	-0.24	11-12	>999	180	MT18HS	197/144
TCDL	10.0	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 283 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x8 SPF No.2 *Except* 4-13: 2x4 SPF No.3, 9-12: 2x6 SPF No.2
WEBS	2x4 SPF No.3
SLIDER	Right 2x4 SPF No.2 -x 2-5-2

BRACING-

TOP CHORD	Sheathed or 4-5-1 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 15=0-3-8, 9=0-3-8
Max Horz 15=-254(LC 14)
Max Uplift 15=-640(LC 16), 9=-622(LC 17)
Max Grav 15=4425(LC 2), 9=4384(LC 2)

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

TOP CHORD	2-3=-4767/706, 3-4=-4250/696, 4-5=-3922/719, 5-6=-5937/1008, 6-7=-5777/860, 7-9=-5957/847, 2-15=-3803/597
BOT CHORD	14-15=-266/429, 12-13=-117/962, 4-12=-151/429, 11-12=-390/3250, 9-11=-600/4716
WEBS	3-14=-261/417, 12-14=-575/3849, 3-12=-642/223, 5-12=-504/2734, 6-11=-506/234, 7-11=-64/354, 2-14=-446/3707, 5-11=-576/2859

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-1-0, Interior(1) 3-1-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-0-0, Interior(1) 15-0-0 to 22-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) All plates are MT20 plates unless otherwise indicated.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) Two H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 9. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	D1	Common Girder	1	2	I43609397

Job Reference (optional)

NOTES-

12) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 10-0-0 oc max. starting at 2-0-0 from the left end to 20-0-0 to connect truss(es) to front face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 671 lb down and 107 lb up at 4-0-0, 671 lb down and 107 lb up at 6-0-0, and 671 lb down and 107 lb up at 8-0-0, and 671 lb down and 107 lb up at 10-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-5=-60, 5-10=-60, 13-15=-20, 9-12=-20
   Concentrated Loads (lb)
   Vert: 20=-657(F) 21=-658(F) 22=-658(F) 23=-658(F) 24=-658(F) 25=-657(F) 26=-648(F) 27=-660(F) 28=-657(F) 29=-657(F)

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E1	GABLE	1	1	I43609398

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:49 2020 Page 1
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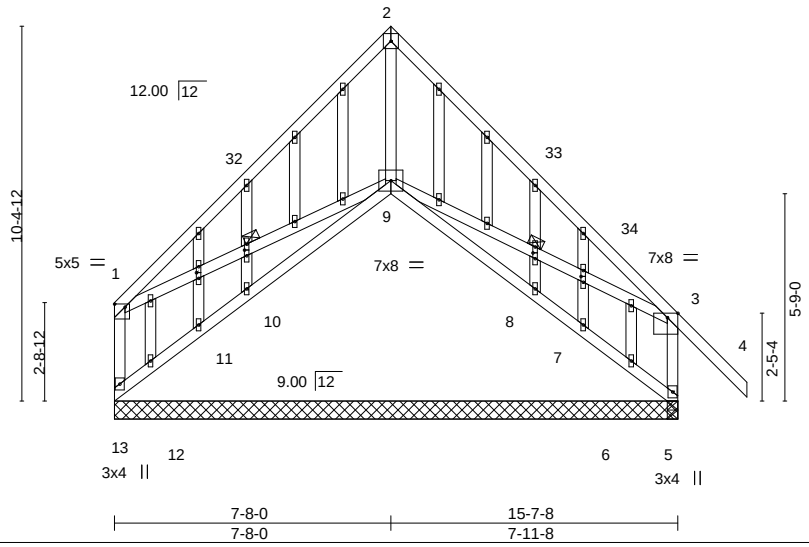

Plate Offsets (X,Y)-- [1:Edge,0-1-0], [3:0-3-8,Edge], [18:0-1-14,0-0-12], [20:0-1-14,0-0-12], [28:0-1-15,0-0-12], [30:0-1-15,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.01	9-10	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 119 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP 2400F 2.0E *Except*
	2-4: 2x4 SP 1650F 1.5E
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.3 *Except*
	3-5: 2x4 SPF No.2
OTHERS	2x4 SPF No.3

BRACING-

TOP CHORD	Sheathed 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 1-9, 3-9

REACTIONS. All bearings 15-7-8.
(lb) - Max Horz 13=-340(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 9, 11, 12, 7, 6 except 13=-275(LC 17), 5=-305(LC 17)
Max Grav All reactions 250 lb or less at joint(s) 10, 11, 12, 8, 7, 6 except 13=408(LC 31), 5=514(LC 31), 5=420(LC 1), 9=678(LC 30)

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

TOP CHORD	1-2=-305/196, 2-3=-322/189, 1-13=-361/267, 3-5=-548/398
BOT CHORD	12-13=-400/454, 11-12=-404/458, 10-11=-389/473, 9-10=-418/475, 8-9=-186/262, 7-8=-167/259, 6-7=-183/251
WEBS	2-9=-373/13, 3-9=-240/324

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 7-8-0, Exterior(2R) 7-8-0 to 11-8-0, Interior(1) 11-8-0 to 17-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
7) All plates are 1.5x4 MT20 unless otherwise indicated.
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 11, 12, 7, 6 except (jt=lb) 13=275.
11) N/A

November 13,2020

Continued on page 2

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E1	GABLE	1	1	I43609398

Job Reference (optional)

NOTES-

12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E2	Scissor	1	1	I43609399

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:50 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-wfhRfRPuCur4CSra1bAjdJMxLZh2iZRz3WeYeryJuMB

	3-11-12	7-8-0	11-6-0	15-7-8	17-6-8
	3-11-12	3-8-4	3-10-0	4-1-8	1-11-0

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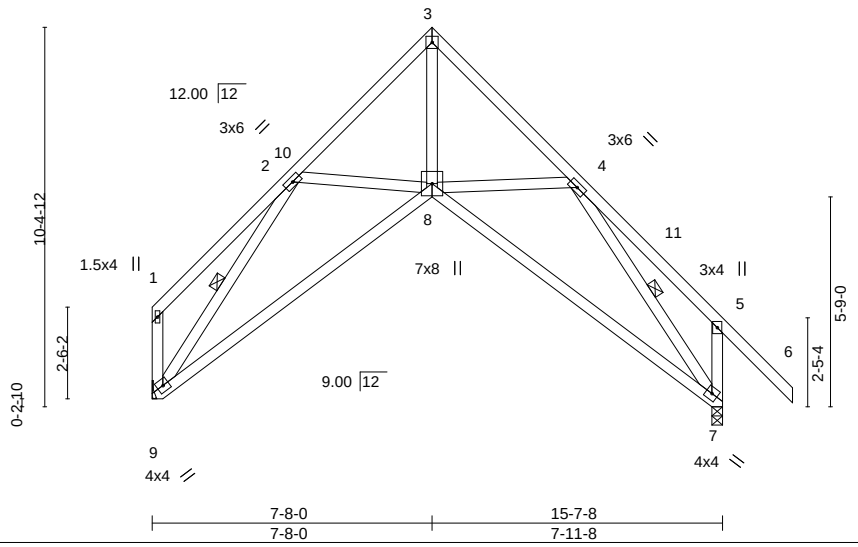

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.15	7-8	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.32	7-8	>576	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.15	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 85 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 5-1-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-9-7 oc bracing.
WEBS 1 Row at midpt 2-9, 4-7

REACTIONS. (size) 9=Mechanical, 7=0-3-8
Max Horz 9=-340(LC 12)
Max Uplift 9=-89(LC 17), 7=-103(LC 17)
Max Grav 9=680(LC 2), 7=844(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1082/59, 3-4=-1128/118, 5-7=-353/260
BOT CHORD 8-9=-342/1063, 7-8=-48/832
WEBS 2-8=-112/275, 3-8=-115/1221, 4-8=-176/353, 2-9=-1083/71, 4-7=-1108/40

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 7-8-0, Exterior(2R) 7-8-0 to 11-8-6, Interior(1) 11-8-6 to 17-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) Refer to girder(s) for truss to truss connections.
8) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E3	Scissor	4	1	I43609400

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/14/2020

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:51 2020 Page 1
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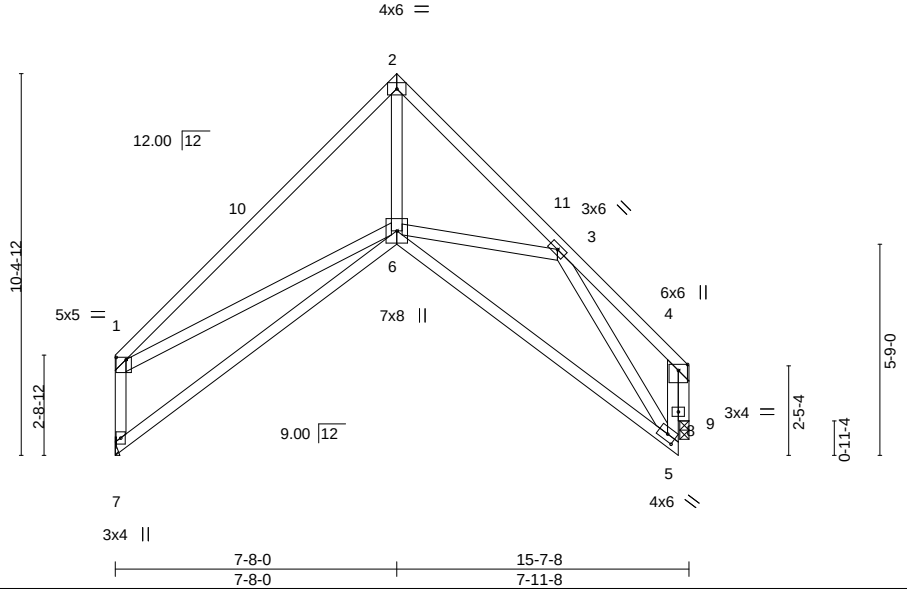

Plate Offsets (X,Y)-- [1:0-3-4,0-0-12], [5:0-2-14,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.13	6-7	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.27	6-7	>685	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.78	Horz(CT)	0.11	9	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 84 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SP 2400F 2.0E *Except*
	2-4: 2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.3 *Except*
	1-7,4-5: 2x4 SPF No.2
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Sheathed or 4-11-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-6-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 9=0-3-0
Max Horz 7=-280(LC 14)
Max Uplift 7=-87(LC 17), 9=-85(LC 16)
Max Grav 7=691(LC 2), 9=663(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1139/128, 2-3=-1090/201, 1-7=-726/255, 5-8=-57/500, 4-8=-57/500
BOT CHORD 6-7=-362/454, 5-6=-186/777
WEBS 2-6=-43/1004, 1-6=0/620, 3-6=-152/315, 3-5=-983/223, 4-9=-675/134

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 7-8-0, Exterior(2R) 7-8-0 to 11-8-0, Interior(1) 11-8-0 to 15-2-4 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E4	Roof Special	1	1	I43609401

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:52 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-s1pB47R8kV6oRm?z90CBikRCgMPPATBGWq7fijyJuM9

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/14/2020

Scale = 1:62.9

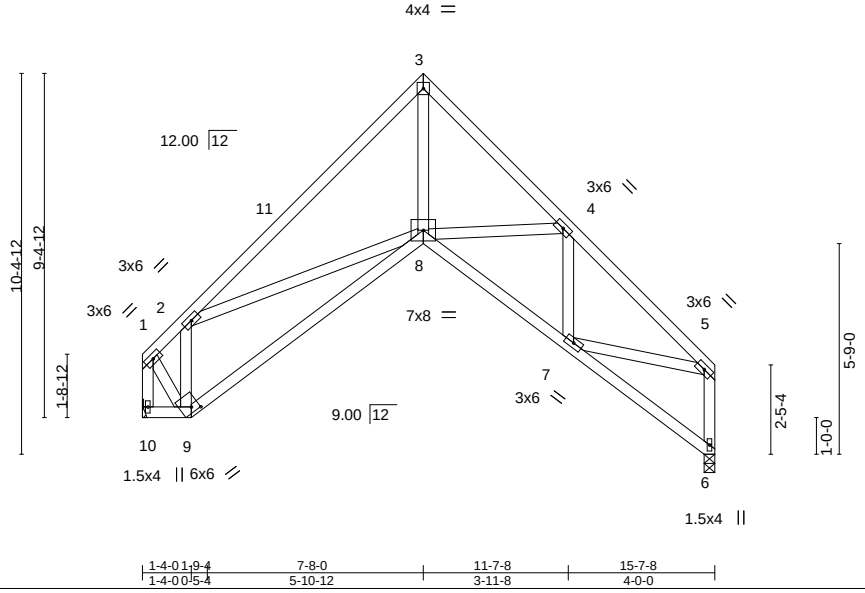

Plate Offsets (X,Y)-- [9:0-2-8,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.08	8-9	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.17	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.11	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 81 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 3-9-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 9-10.

REACTIONS. (size) 10=Mechanical, 6=0-3-8
Max Horz 10=291(LC 15)
Max Uplift 10=-83(LC 17), 6=-79(LC 16)
Max Grav 10=690(LC 2), 6=690(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-414/56, 2-3=-1099/188, 3-4=-1063/246, 4-5=-1011/221, 1-10=-709/104, 5-6=-669/169
BOT CHORD 9-10=-278/269, 8-9=-315/689, 7-8=-182/864
WEBS 2-9=-775/407, 2-8=-75/376, 3-8=-134/1047, 1-9=-254/734, 4-8=-210/266, 4-7=-315/111, 5-7=-99/665

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 7-8-0, Exterior(2R) 7-8-0 to 11-7-8, Interior(1) 11-7-8 to 15-5-12 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Refer to girder(s) for truss to truss connections.
7) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10.
9) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6. This connection is for uplift only and does not consider lateral forces.
10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E5	Roof Special	1	1	I43609402

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/14/2020

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:53 2020 Page 1
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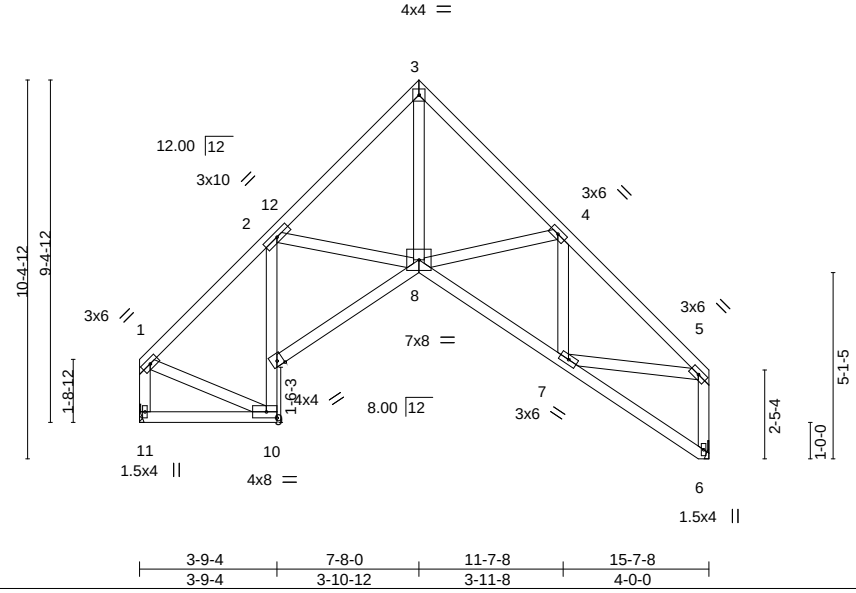

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.08	8-9	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.15	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.24	6	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 82 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 5-7-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 9-10.

REACTIONS. (size) 11=Mechanical, 6=Mechanical
Max Horz 11=291(LC 15)
Max Uplift 11=-83(LC 17), 6=-79(LC 16)
Max Grav 11=690(LC 2), 6=690(LC 2)

WHERE SCISSOR TYPE TRUSSES ARE ATTACHED TO GIRDER TRUSSES, AN ADEQUATE SYSTEM OF BRACING MUST BE DESIGNED BY THE PROJECT ARCHITECT/ENGINEER TO PREVENT LATERAL DISPLACEMENT OF THE GIRDER TRUSS. SUCH BRACING IS ESSENTIAL TO THE OVERALL STABILITY OF THE STRUCTURE.

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-667/160, 2-3=-893/232, 3-4=-917/248, 4-5=-929/207, 1-11=-706/144, 5-6=-666/165
BOT CHORD 10-11=-271/276, 2-9=-462/141, 8-9=-247/826, 7-8=-167/761
WEBS 3-8=-213/925, 1-10=-45/427, 4-7=-279/112, 5-7=-91/602

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 7-8-0, Exterior(2R) 7-8-0 to 11-7-8, Interior(1) 11-7-8 to 15-5-12 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
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) 11, 6.
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.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E6	Roof Special	1	1	I43609403

Job Reference (optional)

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/14/2020

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:54 2020 Page 1
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6-6-0 11-6-2 15-7-8
6-6-0 5-0-2 3-10-2 4-1-6

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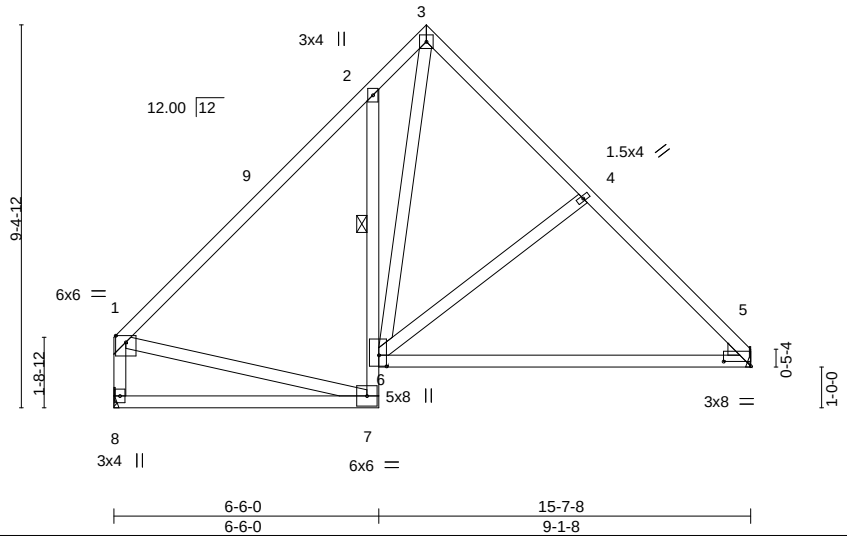

Plate Offsets (X,Y)-- [5:0-8-0,0-1-6], [6:0-3-4,0-2-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.23	5-6	>808	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.50	5-6	>373	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.13	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 77 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-7: 2x4 SPF No.3
WEBS 2x4 SPF No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Sheathed or 5-6-15 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except:
1 Row at midpt 2-6

REACTIONS. (size) 5=Mechanical, 8=Mechanical
Max Horz 8=-254(LC 14)
Max Uplift 5=-78(LC 16), 8=-84(LC 17)
Max Grav 5=694(LC 2), 8=694(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-680/170, 2-3=-749/441, 3-4=-575/217, 4-5=-764/205, 1-8=-656/159
BOT CHORD 7-8=-240/296, 2-6=-575/421, 5-6=-56/520
WEBS 3-6=-445/757, 4-6=-299/215, 1-7=-26/330

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-1-12, Interior(1) 4-1-12 to 7-8-0, Exterior(2R) 7-8-0 to 11-7-9, Interior(1) 11-7-9 to 15-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
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, 8.
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.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E7	Roof Special	2	1	I43609404

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:55 2020 Page 1
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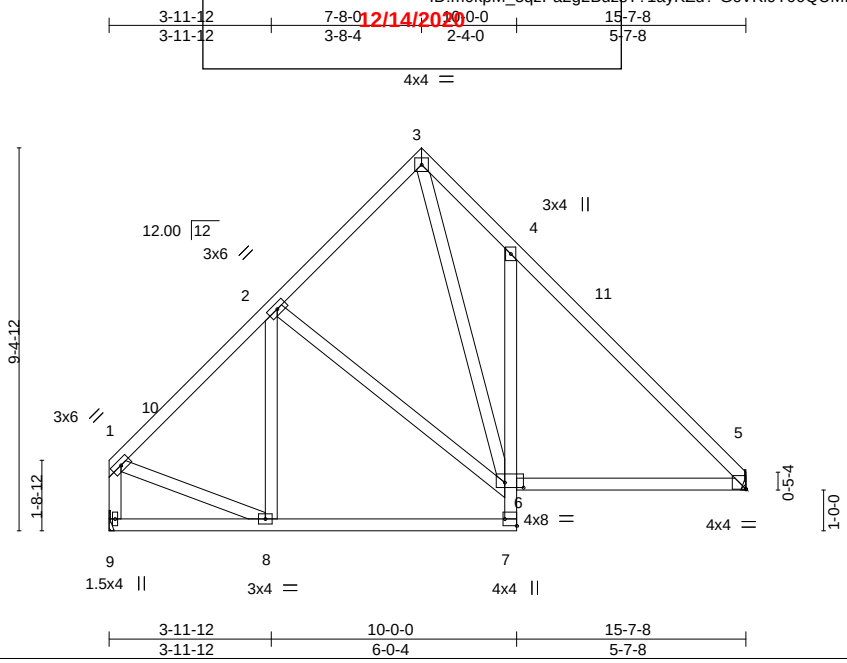

Plate Offsets (X,Y)-- [5:0-0-0,0-0-1], [6:0-5-8,0-1-8], [7:Edge,0-3-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.06	5-6	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.13	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.55	Horz(CT)	0.05	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 80 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
4-7: 2x4 SPF No.3
WEBS 2x4 SPF No.3

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

REACTIONS. (size) 5=Mechanical, 9=Mechanical
Max Horz 9=-254(LC 14)
Max Uplift 5=-78(LC 16), 9=-84(LC 17)
Max Grav 5=694(LC 2), 9=694(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-639/144, 2-3=-490/218, 3-4=-707/400, 4-5=-754/181, 1-9=-653/139
BOT CHORD 8-9=-231/257, 7-8=-92/467, 4-6=-395/349, 5-6=-17/447
WEBS 3-6=-382/578, 1-8=-30/397

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-11-12, Interior(1) 3-11-12 to 7-8-0, Exterior(2R) 7-8-0 to 11-8-0, Interior(1) 11-8-0 to 15-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
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, 9.
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.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	E8	Common Supported Gable	1	1	I43609405

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:56 2020 Page 1
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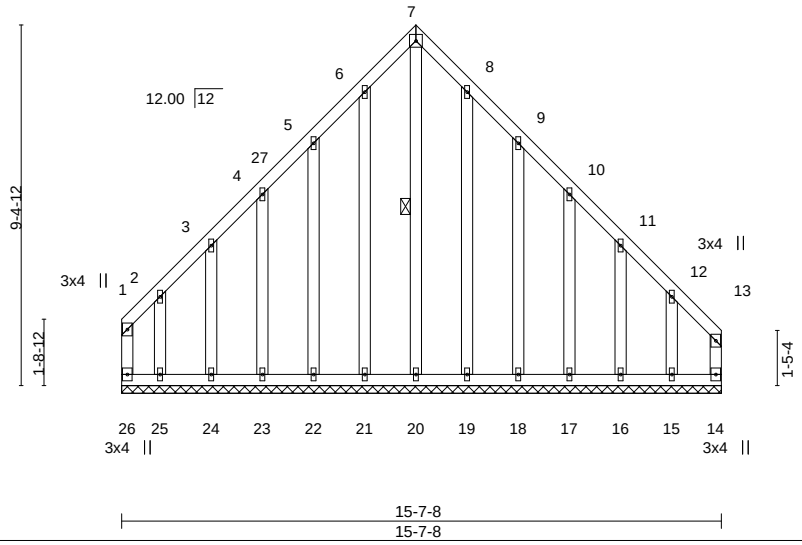
7-8-0 15-7-8
7-8-0 7-11-8

4x4 =

Scale = 1:60.0



15-7-8
15-7-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.23	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R							Weight: 111 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.3
OTHERS	2x4 SPF No.3

BRACING-

TOP CHORD	Sheathed or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 7-20

REACTIONS. All bearings 15-7-8.
(lb) - Max Horz 26=-264(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 21, 22, 23, 24, 19, 18, 17, 16 except 26=-278(LC 14), 14=-255(LC 15), 25=-285(LC 13), 15=-254(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 21, 22, 23, 24, 19, 18, 17, 16 except 26=318(LC 13), 14=304(LC 12), 20=347(LC 16), 25=325(LC 14), 15=301(LC 15)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-139/284, 5-6=-193/397, 6-7=-213/440, 7-8=-213/440, 8-9=-193/397, 9-10=-139/285
WEBS 7-20=-514/211

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 0-1-12 to 4-1-12, Exterior(2N) 4-1-12 to 7-8-0, Corner(3R) 7-8-0 to 11-8-0, Exterior(2N) 11-8-0 to 15-5-12 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
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 1.5x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
9) Gable studs spaced at 1-4-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) N/A
12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	F1	Monopitch Supported Gable	2	1	I43609406

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:57 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-C?d47qVHY1k4XXtwxZoMPo89lN95rpn?g5rQNxyJuM4

-0-11-0 2-6-0
0-11-0 2-6-0

Scale = 1:18.7

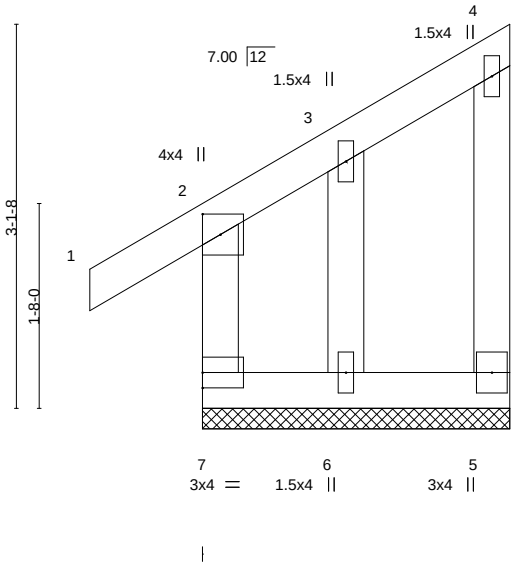


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	-0.00	2	n/r	120	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	0.00	2	n/r	90		
TCDL	10.0	Rep Stress Incr	NO	WB	0.08	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-R								
BCDL	10.0										Weight: 14 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.3
OTHERS	2x4 SPF No.3

BRACING-

TOP CHORD	Sheathed or 2-6-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 7=2-6-0, 5=2-6-0, 6=2-6-0
Max Horz 7=121(LC 13)
Max Uplift 7=-60(LC 12), 5=-28(LC 13), 6=-98(LC 13)
Max Grav 7=196(LC 23), 5=60(LC 30), 6=132(LC 30)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-156/254

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
6) Gable requires continuous bottom chord bearing.
7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
8) Gable studs spaced at 1-4-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) N/A

11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	F2	Monopitch	8	1	I43609407

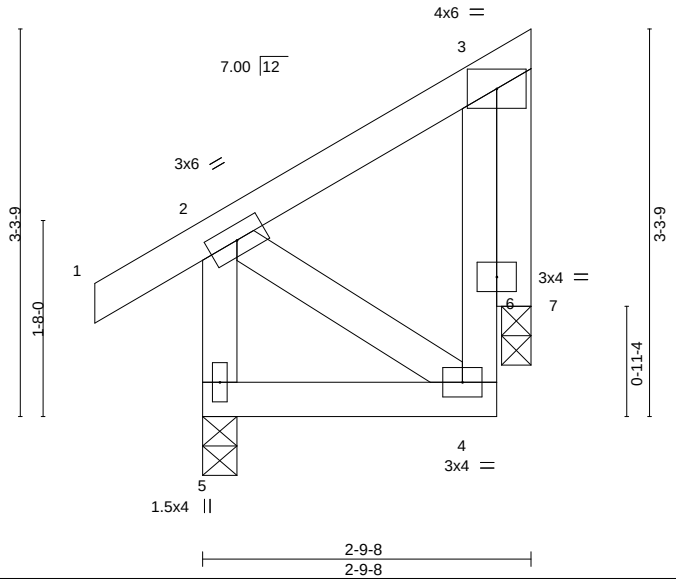
Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:04:58 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-hBASLAWvJLsx9hS6VGJby?hPVnY3aHT8vla_wNyJuM3

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/14/2020

-0-11-0 2-9-8
0-11-0 2-9-8

Scale = 1:19.6



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	-0.00	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%
BCDL	10.0											

LUMBER-

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2
WEBS	2x4 SPF No.3
OTHERS	2x4 SPF No.2

BRACING-

TOP CHORD	Sheathed or 2-9-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 7=0-3-0
Max Horz 5=88(LC 13)
Max Uplift 5=-7(LC 16), 7=-59(LC 16)
Max Grav 5=255(LC 23), 7=96(LC 30)

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=6.0psf; h=35ft; Ke=0.96; 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

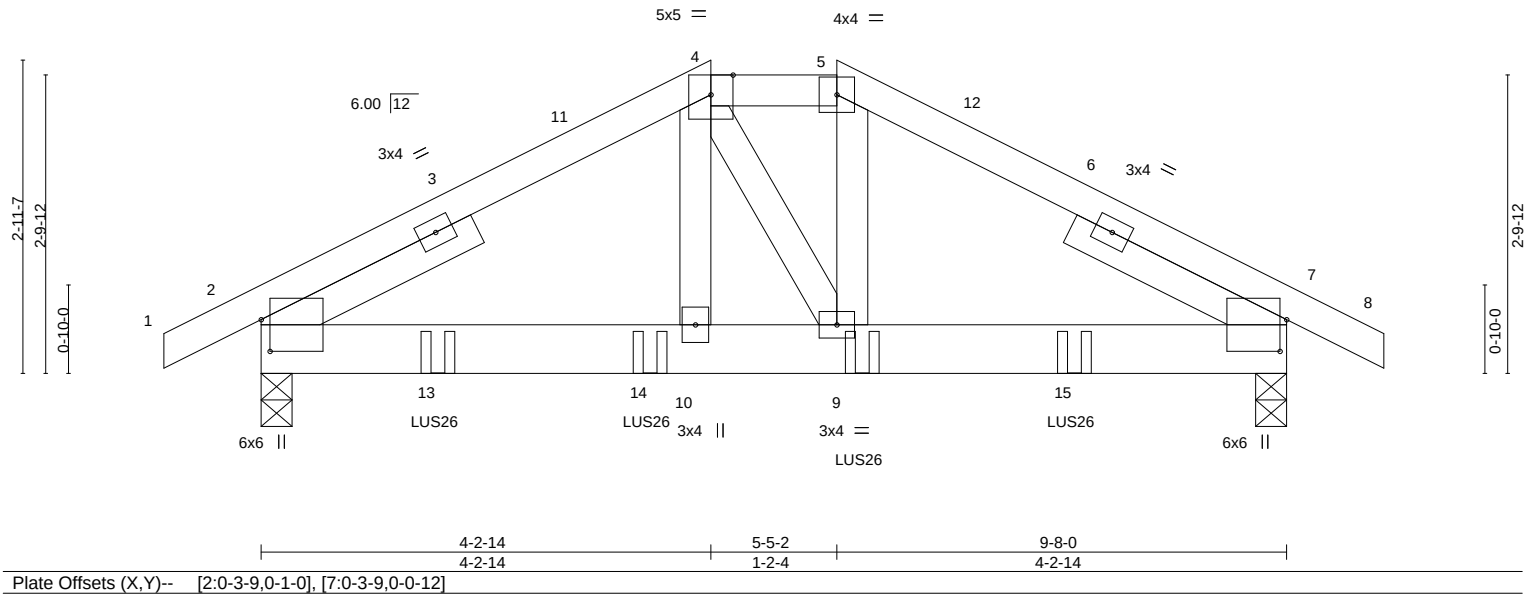
Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	G1	Hip Girder	1	2	I43609408

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:00 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-daIDmsX9ry6fO?cVdhL31Qmjib8W28SRM334_GyJuM1

-0-11-0 / 0-11-0 | 4-2-14 / 4-2-14 | 5-5-2 / 1-2-4 | 9-8-0 / 4-2-14 | 10-7-0 / 0-11-0

Scale = 1:21.7



4-2-14 / 4-2-14 | 5-5-2 / 1-2-4 | 9-8-0 / 4-2-14

Plate Offsets (X,Y)-- [2:0-3-9,0-1-0], [7:0-3-9,0-0-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.02	2-10	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.03	2-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH								
BCDL	10.0										Weight: 90 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.3
SLIDER Left 2x4 SPF No.2 -x 2-2-12, Right 2x4 SPF No.2 -x 2-2-12

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=46(LC 72)
Max Uplift 2=-266(LC 16), 7=-251(LC 17)
Max Grav 2=2025(LC 41), 7=1922(LC 41)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2516/468, 4-5=-2051/451, 5-7=-2511/467
BOT CHORD 2-10=-314/2113, 9-10=-307/2059, 7-9=-303/2104
WEBS 4-10=-120/956, 5-9=-122/965

NOTES-
1) 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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-11-0 to 3-1-0, Interior(1) 3-1-0 to 4-2-14, Exterior(2E) 4-2-14 to 10-7-0 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
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-8-0 from the left end to 7-8-0 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.

Continued on page 2

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	G1	Hip Girder	1	2	I43609408

Job Reference (optional)

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-5=-60, 5-8=-60, 2-7=-20
   Concentrated Loads (lb)
   Vert: 9=-661(B) 13=-658(B) 14=-668(B) 15=-661(B)

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	G2	Hip Girder	1	2	I43609409

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:03 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-19_LOuZ28tUEFSL4Iqumf3ODFoE5FX0t21IlbbyJuM_

-0-11-0 2-2-14 5-2-4 9-8-0 10-7-0
0-11-0 2-2-14 5-2-4 2-2-14 0-11-0

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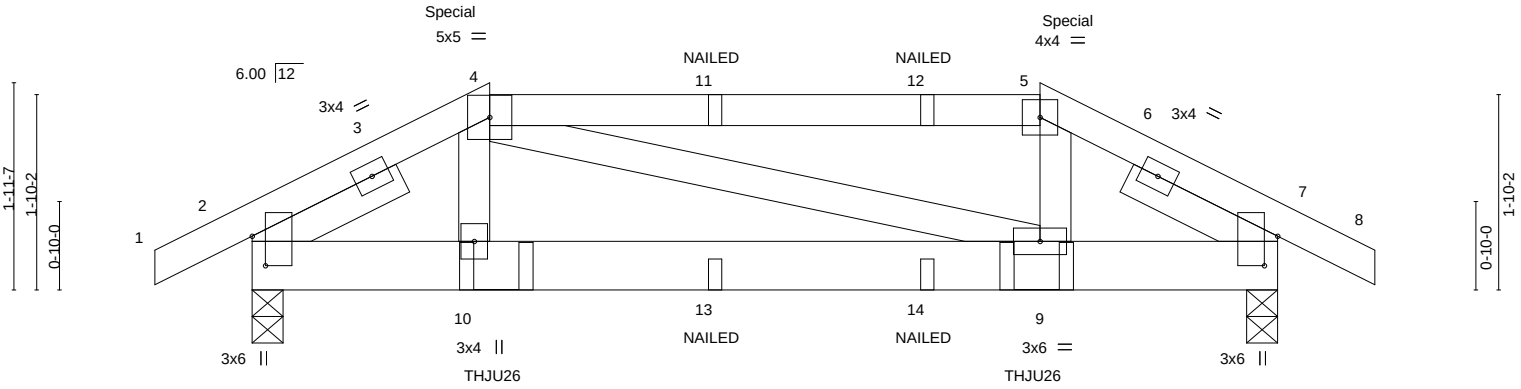


2-2-14 7-5-2 9-8-0
2-2-14 5-2-4 2-2-14

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	-0.01	9-10	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.02	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 88 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2
WEBS 2x4 SPF No.3
SLIDER Left 2x4 SPF No.2 -x 1-6-7, Right 2x4 SPF No.2 -x 1-6-7

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8
Max Horz 2=-28(LC 73)
Max Uplift 2=-121(LC 16), 7=-128(LC 17)
Max Grav 2=553(LC 41), 7=561(LC 41)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-704/308, 4-5=-615/304, 5-7=-695/307
BOT CHORD 2-10=-207/623, 9-10=-211/622, 7-9=-207/615

NOTES-
1) 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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-8-0 oc, Except member 9-4 2x4 - 1 row at 0-9-0 oc.
2) 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.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; 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
5) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
8) Provide adequate drainage to prevent water ponding.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
12) Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT LC 2-PLY) or equivalent at 2-3-10 from the left end to connect truss(es) to front face of bottom chord.
13) Use Simpson Strong-Tie THJU26 (SGL & SGL SHORT RC 2-PLY) or equivalent at 7-4-12 from the left end to connect truss(es) to front face of bottom chord.
14) Fill all nail holes where hanger is in contact with lumber.

Continued on page 2

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	G2	Hip Girder	1	2	I43609409

Job Reference (optional)

NOTES-

15) "NAILED" indicates 3-10d Nails (0.148" x 3") toe-nails per NDS guidelines.

16) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 95 lb down and 149 lb up at 2-2-14, and 95 lb down and 149 lb up at 7-5-2 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-5=-60, 5-8=-60, 2-7=-20
   Concentrated Loads (lb)
   Vert: 4=-25(F) 5=-25(F) 10=-2(F) 9=-2(F) 11=-10(F) 12=-10(F) 13=-1(F) 14=-1(F)

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	HG1	Lay-In Gable	1	1	I43609410

Job Reference (optional)

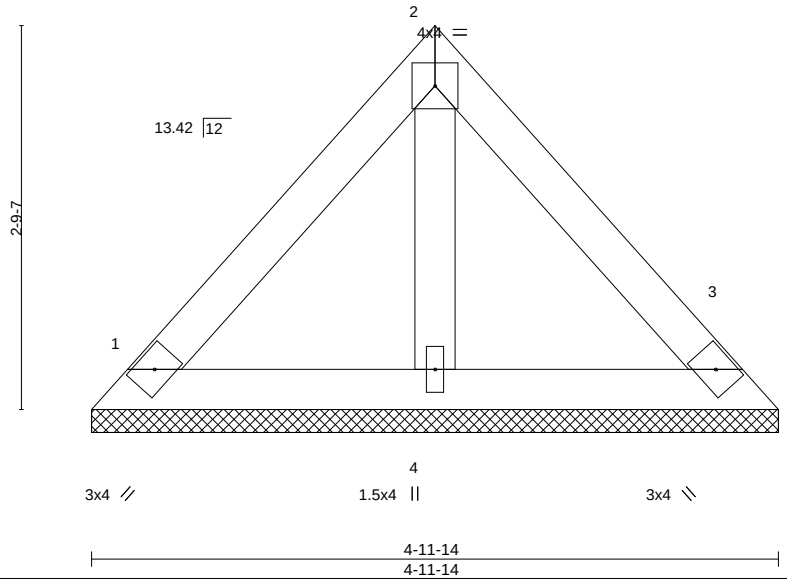
Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:03 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-19_LOuZ28tUEFSL4Iqumf3OFAoFHFXBt21IlbbyJuM_

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
12/14/2020

2-5-15
2-5-15

4-11-14
2-5-15

Scale = 1:16.7



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 16 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 4-11-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-11-14, 3=4-11-14, 4=4-11-14
Max Horz 1=-68(LC 12)
Max Uplift 1=-34(LC 17), 3=-30(LC 17)
Max Grav 1=149(LC 22), 3=149(LC 23), 4=141(LC 2)

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

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=6.0psf; h=35ft; Ke=0.96; 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) N/A

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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER
PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	J1	Jack-Open	2	1	I43609411

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:04 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-VLYjbEagvBc5tcwGsXQ?BGxPECas__01Hh1I61yJuLz

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1-3-9 3-0-8

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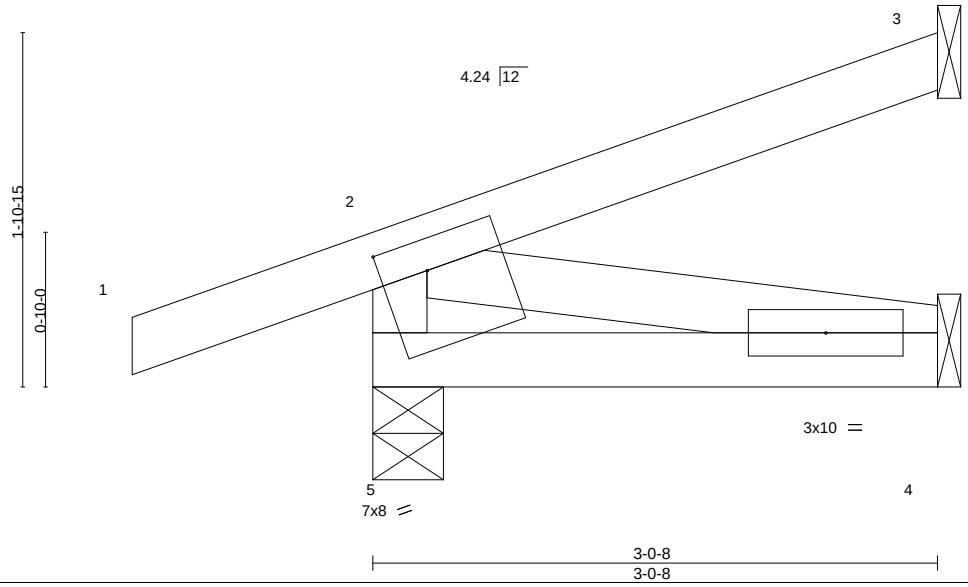

Plate Offsets (X,Y)-- [5:0-1-10,0-0-9], [5:0-3-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.01	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 12 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 3-0-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-4-9, 3=Mechanical, 4=Mechanical
Max Horz 5=61(LC 12)
Max Uplift 5=-87(LC 12), 3=-40(LC 16)
Max Grav 5=312(LC 23), 3=92(LC 23), 4=58(LC 7)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-5=-283/279

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) 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) 3.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	J2	Jack-Open	4	1	I43609412

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:05 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-zX56pZbIgVkyVmVTPExEkUTcmcxnjROAWLnreTyJuLy

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0-11-0 2-2-14

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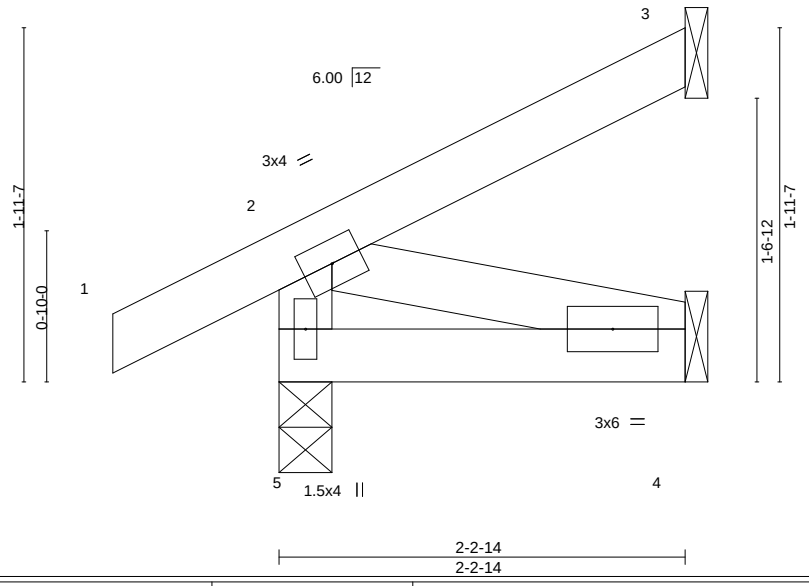

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.04	Horz(CT)	-0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.3

BRACING-
TOP CHORD Sheathed or 2-2-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 5=0-3-8, 3=Mechanical, 4=Mechanical
Max Horz 5=53(LC 16)
Max Uplift 5=-26(LC 16), 3=-32(LC 16), 4=-4(LC 16)
Max Grav 5=229(LC 23), 3=65(LC 23), 4=42(LC 7)

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=6.0psf; h=35ft; Ke=0.96; 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) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
3) Unbalanced snow loads have been considered for this design.
4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) 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) 3, 4.
8) One H2.5T Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5. This connection is for uplift only and does not consider lateral forces.
9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	V1	Valley	1	1	I43609413

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:05 2020 Page 1
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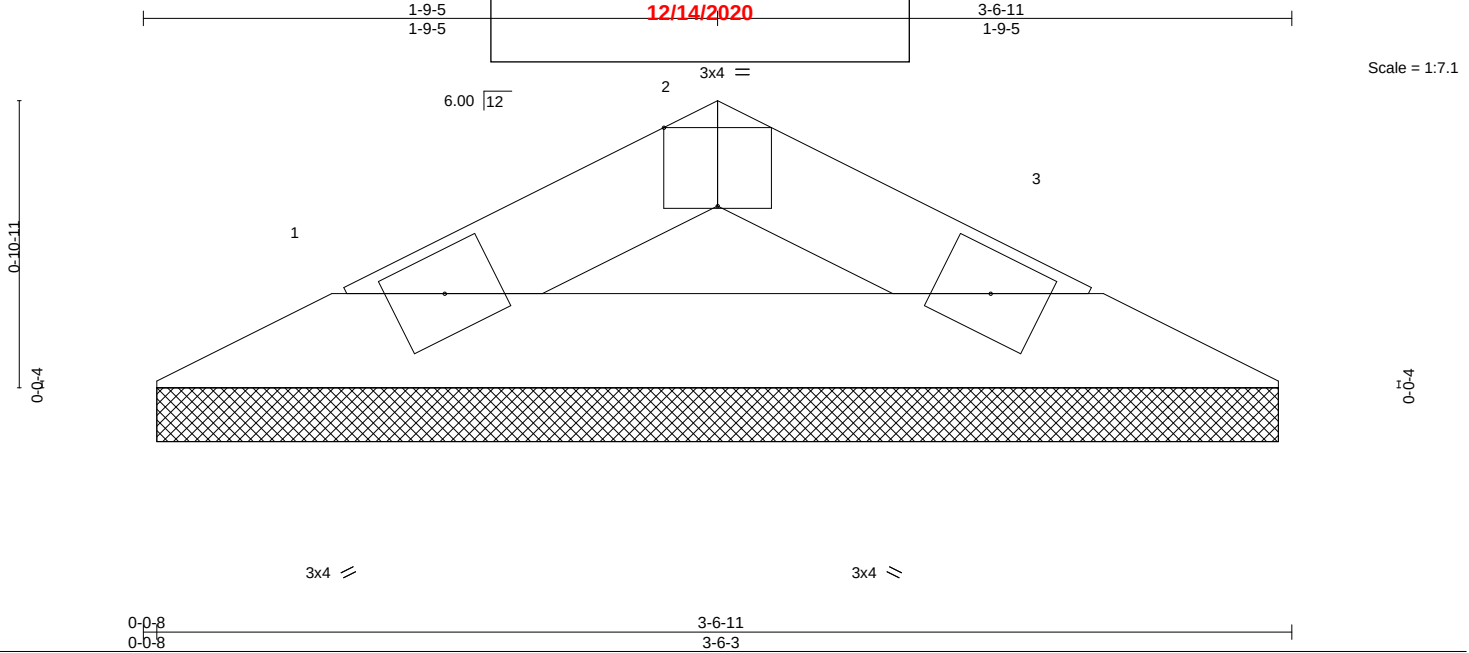

Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Sheathed or 3-6-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-5-11, 3=3-5-11
Max Horz 1=11(LC 16)
Max Uplift 1=-14(LC 16), 3=-14(LC 17)
Max Grav 1=103(LC 2), 3=103(LC 2)

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

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=6.0psf; h=35ft; Ke=0.96; 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) N/A

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.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	V2	Valley	1	1	I43609414

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:07 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-wwDsEFdYC6?fk4erXfzipvZvnPcJBKwTzfGyjMyJuLw

7-8-11 15-5-6
7-8-11 7-8-11

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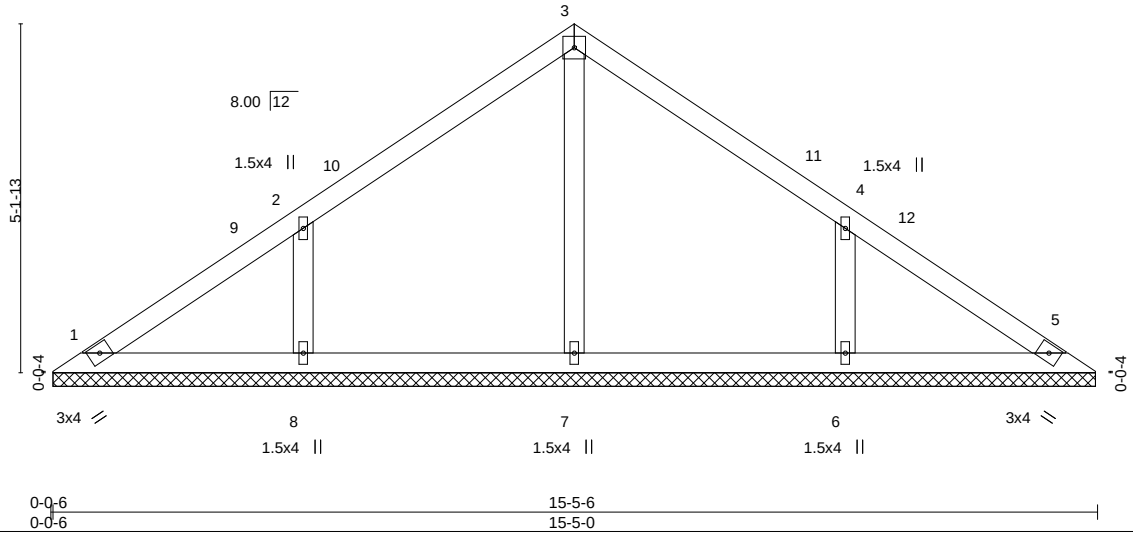


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 47 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.3

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

REACTIONS. All bearings 15-4-10.
(lb) - Max Horz 1=-131(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-165(LC 16), 6=-165(LC 17)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=279(LC 2), 8=466(LC 22), 6=466(LC 23)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-383/203, 4-6=-383/203

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=6.0psf; h=35ft; Ke=0.96; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 4-5-12, Interior(1) 4-5-12 to 7-8-11, Exterior(2R) 7-8-11 to 11-8-11, Interior(1) 11-8-11 to 14-11-10 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) N/A

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.

STATE OF MISSOURI
SCOTT M. SEVIER
NUMBER PE-2001018807
PROFESSIONAL ENGINEER

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

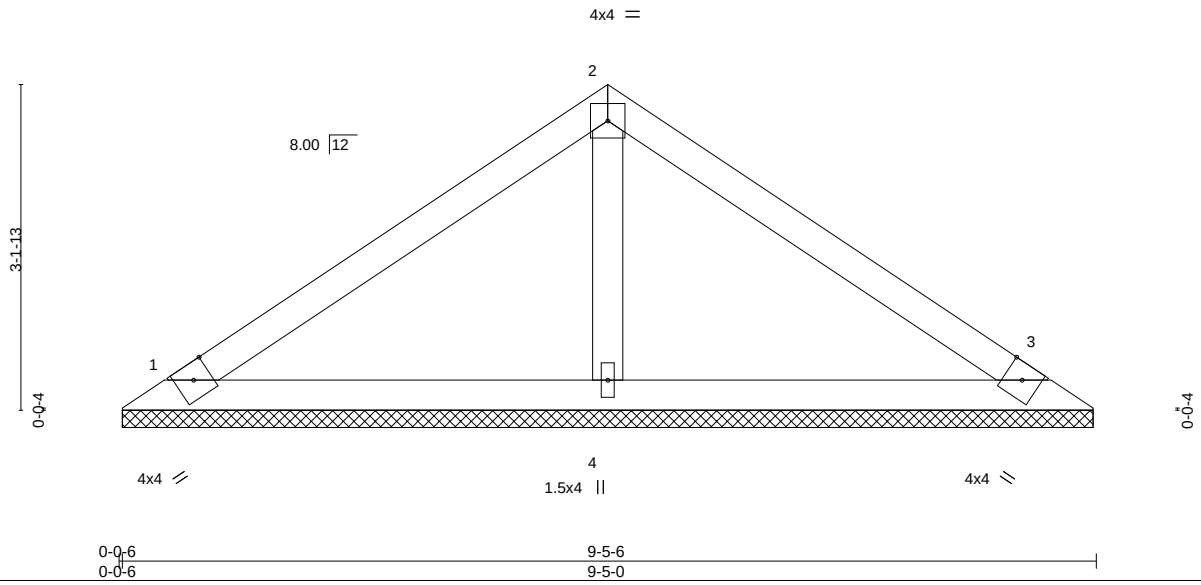
Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	V3	Valley	1	1	I43609415

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:09 2020 Page 1
ID:m0kpM_5qzPa2g2BuzsT?1ayKZd?-sILcexeojjFNzNoEe4?AuKeDHDFSfF0mRzl3oEyJuLu

4-8-11 9-5-6
4-8-11 4-8-11

Scale = 1:22.3



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.25	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-SH							Weight: 25 lb	FT = 20%
BCDL	10.0											

LUMBER-
TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
OTHERS 2x4 SPF No.3

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

REACTIONS. (size) 1=9-4-10, 3=9-4-10, 4=9-4-10
Max Horz 1=76(LC 13)
Max Uplift 1=-35(LC 16), 3=-45(LC 17), 4=-28(LC 16)
Max Grav 1=246(LC 22), 3=246(LC 23), 4=391(LC 2)

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

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=6.0psf; h=35ft; Ke=0.96; 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
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) 4.
8) N/A

9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Roof
P200462-P200462-02	V4	Valley	1	1	I43609416

Job Reference (optional)

Premier Building Supply (Springhill, KS), Spring Hills, KS - 66083, 8.330 s Oct 7 2020 MiTek Industries, Inc. Thu Nov 12 15:05:09 2020 Page 1
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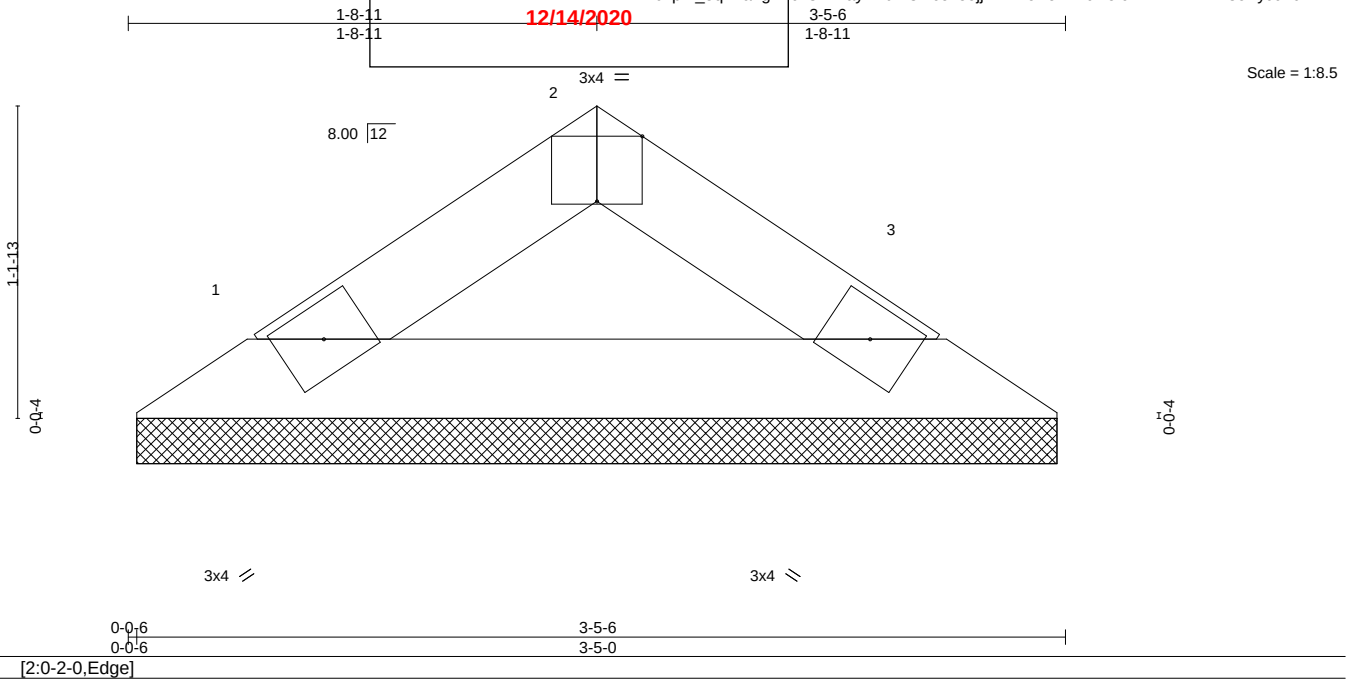


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	25.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	197/144
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0										Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Sheathed or 3-5-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-4-10, 3=3-4-10
Max Horz 1=-22(LC 12)
Max Uplift 1=-14(LC 16), 3=-14(LC 17)
Max Grav 1=112(LC 2), 3=112(LC 2)

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

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=6.0psf; h=35ft; Ke=0.96; 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
3) TCLL: ASCE 7-16; Pr=25.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat C; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Gable requires continuous bottom chord bearing.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) N/A

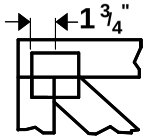
8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

November 13,2020

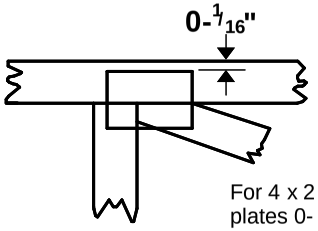
MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

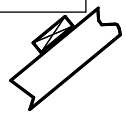
***Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 X 4

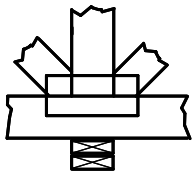
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

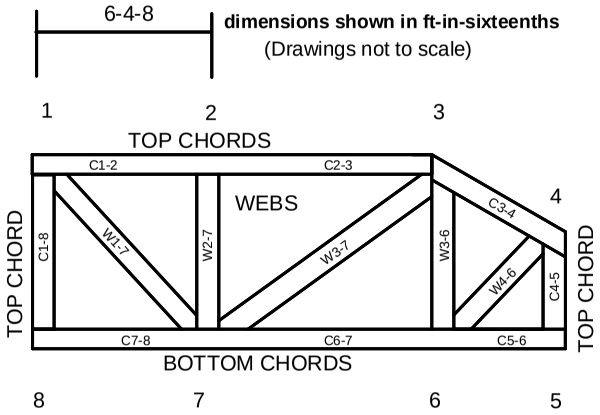


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

21.The design does not take into account any dynamic or other loads other than those expressly stated.