



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

03/08/2021

MiTek USA, Inc.

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

Re: 2630561

Summit/39 Woodside Ridge/MO

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource (Valley Center).

Pages or sheets covered by this seal: I44965863 thru I44965950

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

Missouri COA: Engineering 001193



February 25, 2021

Johnson, Andrew ,Engineer

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

Job

2630561

Truss

A1

Truss Type

Half Hip Girder

Qty

1

Ply

2

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. See S41MMB12 MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. See S41MMB12 MISSOURI

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-3mvRTV8kYxcvyRN?segKx6917RFYdXXkKpXI95zhb59

22-7-14

26-10-13

31-2-0

03/08/2021

4-9-0

9-4-4

13-11-8

18-5-0

22-7-14

26-10-13

31-2-0

4-9-0

4-7-4

4-7-4

4-5-8

4-2-14

4-2-14

4-3-3

Scale = 1:55.2

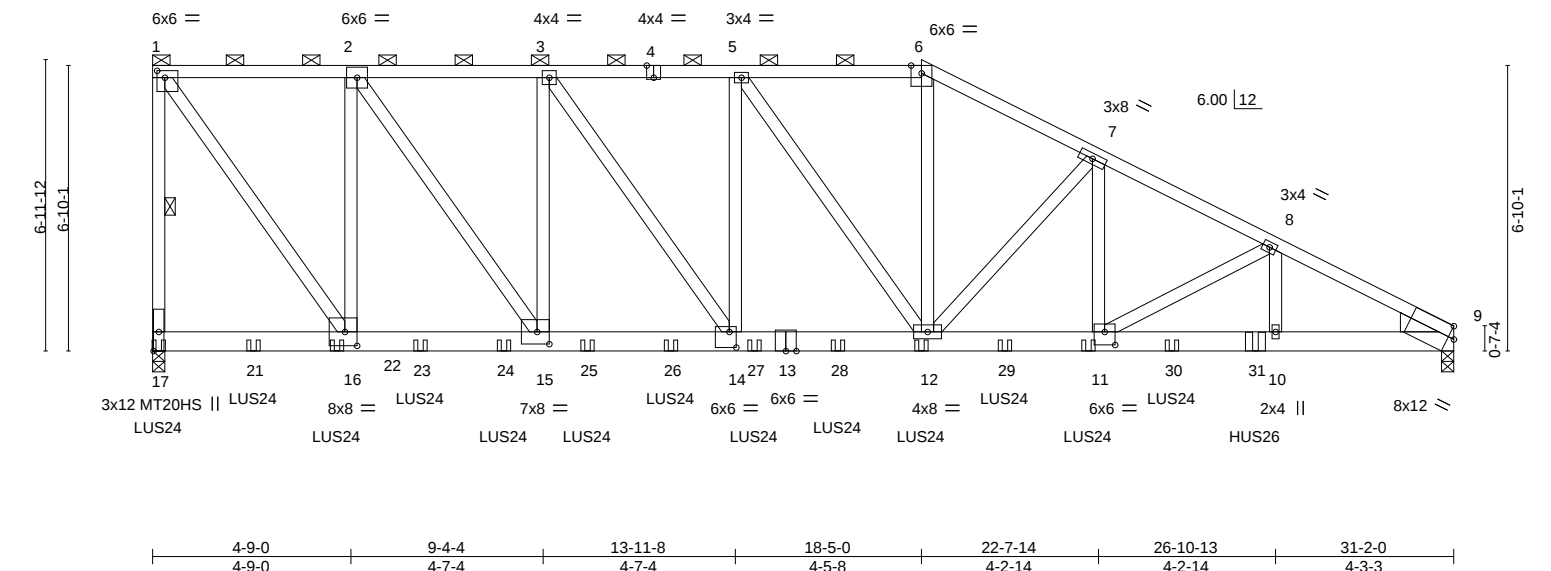


Plate Offsets (X,Y)--		[1:0-2-4,0-2-0], [4:0-2-0,Edge], [9:Edge,0-3-7], [11:0-3-0,0-3-12], [14:0-2-0,0-4-8], [15:0-3-8,0-3-8], [16:0-3-8,0-4-0]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68
TCDL 20.0	Lumber DOL	1.15	BC 0.64
BCLL 0.0	Rep Stress Incr	NO	WB 0.91
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.18 12-14 >999 240
			Vert(CT) -0.40 12-14 >936 180
			Horz(CT) 0.07 9 n/a n/a
			PLATES GRIP
			MT20 197/144
			MT20HS 148/108
			Weight: 400 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
6-9: 2x4 SPF 1650F 1.5E

BOT CHORD 2x6 SP 2400F 2.0E

WEBS 2x4 SPF No.2

WEDGE
Right: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-11 oc purlins, except end verticals, and 2-0-0 oc purlins (3-11-15 max.): 1-6.

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

WEBS 1 Row at midpt 1-17

REACTIONS.

(size) 17=0-3-8, 9=0-3-8

Max Horz 17=-265(LC 6)

Max Uplift 17=-1225(LC 4), 9=-1086(LC 9)

Max Grav 17=7222(LC 1), 9=6155(LC 1)

FORCES.

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

TOP CHORD 1-17=-6199/1076, 1-2=-4306/759, 2-3=-7034/1185, 3-5=-8306/1391, 5-6=-8042/1379, 6-7=-9109/1518, 7-8=-10936/1871, 8-9=-11822/2103

BOT CHORD 15-16=-685/4306, 14-15=-1110/7034, 12-14=-1295/8306, 11-12=-1540/9742, 10-11=-1816/10451, 9-10=-1816/10451

WEBS 1-16=-1258/7378, 2-16=-4267/819, 2-15=-819/4702, 3-15=-2195/453, 3-14=-403/2193, 5-14=-264/305, 5-12=-622/128, 6-12=-592/3653, 7-12=-2399/597, 7-11=-476/2264, 8-11=-811/317, 8-10=-212/602

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 0-4-0 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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

5) Provide adequate drainage to prevent water ponding.

6) All plates are MT20 plates unless otherwise indicated.

7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1225 lb uplift at joint 17 and 1086 lb uplift at joint 9.

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

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

Continued on page 2



February 25,2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	de Ridge/MO
2630561	A1	Half Hip Girder	1	2	Job Reference (optional)	CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/08/2021
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, MO 64086 Page 1		
				ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-3mvRTV8kYxcvyRN?5egKx69I7RFYdXXkKpXI95zhb59		
NOTES-						
11) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-3-4 oc max. starting at 0-1-12 from the left end to 24-5-0 to connect truss(es) to back face of bottom chord.						
12) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end to connect truss(es) to back face of bottom chord.						
13) Fill all nail holes where hanger is in contact with lumber.						

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-6=-90, 6-9=-90, 17-18=-20
- Concentrated Loads (lb)
- Vert: 17=-687(B) 12=-680(B) 11=-670(B) 21=-680(B) 22=-680(B) 23=-680(B) 24=-680(B) 25=-680(B) 26=-680(B) 27=-680(B) 28=-680(B) 29=-670(B) 30=-670(B) 31=-1146(B)

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

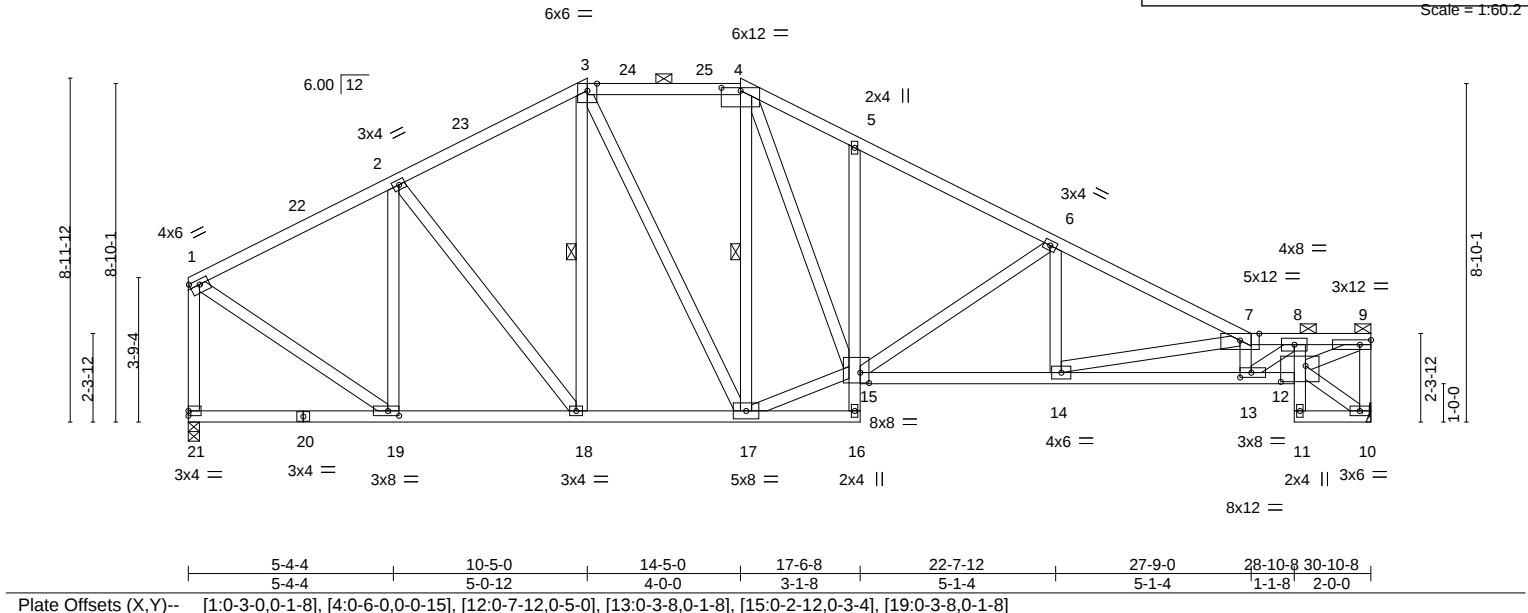
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	Side Ridge/MO
2630561	A3	Roof Special	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Feb 12 2021 MiTek Industries, Inc. LEE'S SUMMIT, MISSOURI
Job Reference (optional)						14965865
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-xX8ylsCFbA6KR2gmKUIG6yJSQ2aAZN8KFRVWIszhb55						03/08/2021
5-4-4 10-5-0 14-5-0 17-6-8 22-7-12 27-9-0 28-10-8 30-10-8 5-4-4 5-0-12 4-0-0 3-1-8 5-1-4 5-1-4 1-1-8 2-0-0						Scale = 1:60.2



LOADING (psf)		SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.53	Vert(LL) -0.16 13-14 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL 1.15	BC 0.79	Vert(CT) -0.35 13-14 >999 180		
BCLL	0.0	Rep Stress Incr YES	WB 0.80	Horz(CT) 0.22 10 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS			
					Weight: 175 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-6-9 max.): 3-4, 7-9.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
12-15: 2x4 SPF 1650F 1.5E	WEBS 1 Row at midpt 3-18, 4-17
WEBS 2x4 SPF No.2	

REACTIONS. (size) 10=Mechanical, 21=0-3-8
 Max Horz 21=-205(LC 8)
 Max Uplift 10=-235(LC 13), 21=-183(LC 12)
 Max Grav 10=1682(LC 1), 21=1682(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-1466/266, 2-3=-1611/341, 3-4=-1506/355, 4-5=-2327/469, 5-6=-2426/413,
 6-7=-3301/468, 7-8=-4540/629, 8-9=-3023/425, 9-10=-1550/237, 1-21=-1629/268
 BOT CHORD 18-19=-195/1228, 17-18=-172/1351, 5-15=-296/154, 14-15=-408/2902, 13-14=-621/4337,
 12-13=-524/3488, 8-12=-783/106
 WEBS 2-19=-706/167, 2-18=-55/299, 3-17=-115/464, 4-17=-781/144, 15-17=-160/1472,
 4-15=-287/1516, 6-15=-1007/241, 6-14=-12/464, 7-14=-1438/253,
 8-13=-198/1374, 9-12=-480/3272, 1-19=-206/1437

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-5-0, Exterior(2R) 10-5-0 to 13-5-0, Interior(1) 13-5-0 to 14-5-0, Exterior(2R) 14-5-0 to 17-5-9, Interior(1) 17-5-9 to 30-8-12 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 235 lb uplift at joint 10 and 183 lb uplift at joint 21.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

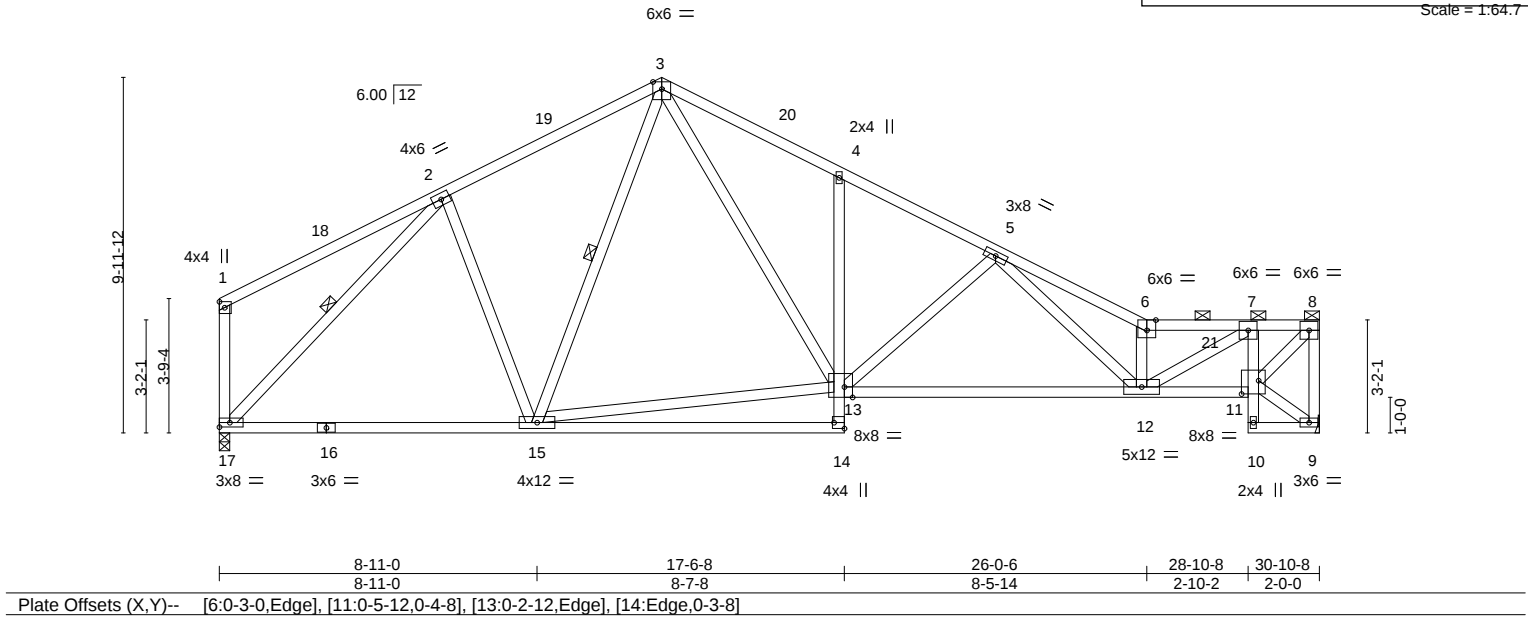
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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	A4	Roof Special	3	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Feb 12 2021 MiTek Industries, Inc.
						Job Reference (optional)
						ID:VPVqvFnP0P0b1j2tZrIQezdKbx-PkiKWCCtMUEB2CFytCGVe9sdJSwulsAUU5E3qJzhb54
						Feb 12 2021 Missouri
						3/08/2021
						Scale = 1:64.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	-0.17 12-13	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.47 12-13	>774	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.69	Horz(CT)	0.16 9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 164 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-10-5 max.): 6-8.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 3-15, 2-17
REACTIONS.	
(size) 9=Mechanical, 17=0-3-8	
Max Horz 17=-216(LC 8)	
Max Uplift 9=-248(LC 13), 17=-199(LC 12)	
Max Grav 9=1682(LC 1), 17=1682(LC 1)	

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-1618/332, 3-4=-2409/475, 4-5=-2419/378, 5-6=-3992/572, 6-7=-3686/490, 7-8=-1606/235, 8-9=-1610/262, 1-17=-278/105
BOT CHORD	15-17=-223/1296, 4-13=-423/190, 12-13=-394/2682, 11-12=-299/1723, 7-11=-1408/212
WEBS	13-15=-161/1258, 3-13=-324/1451, 5-13=-805/222, 5-12=-159/1184, 6-12=-2016/347, 7-12=-274/2296, 8-11=-350/2200, 2-17=-1807/251

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 30-8-12 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 248 lb uplift at joint 9 and 199 lb uplift at joint 17.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

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2630561	A5	Roof Special	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 12 2021
Job Reference (optional)						Lee's Summit, Missouri
ID:VPVqFnP0P0b1j2tZrOqezdKbx-twGijYDV7nM2gMq9RvnkBNPoyrFp1Jldjl_dNlzhb53						03/08/2021

Scale = 1:64.9

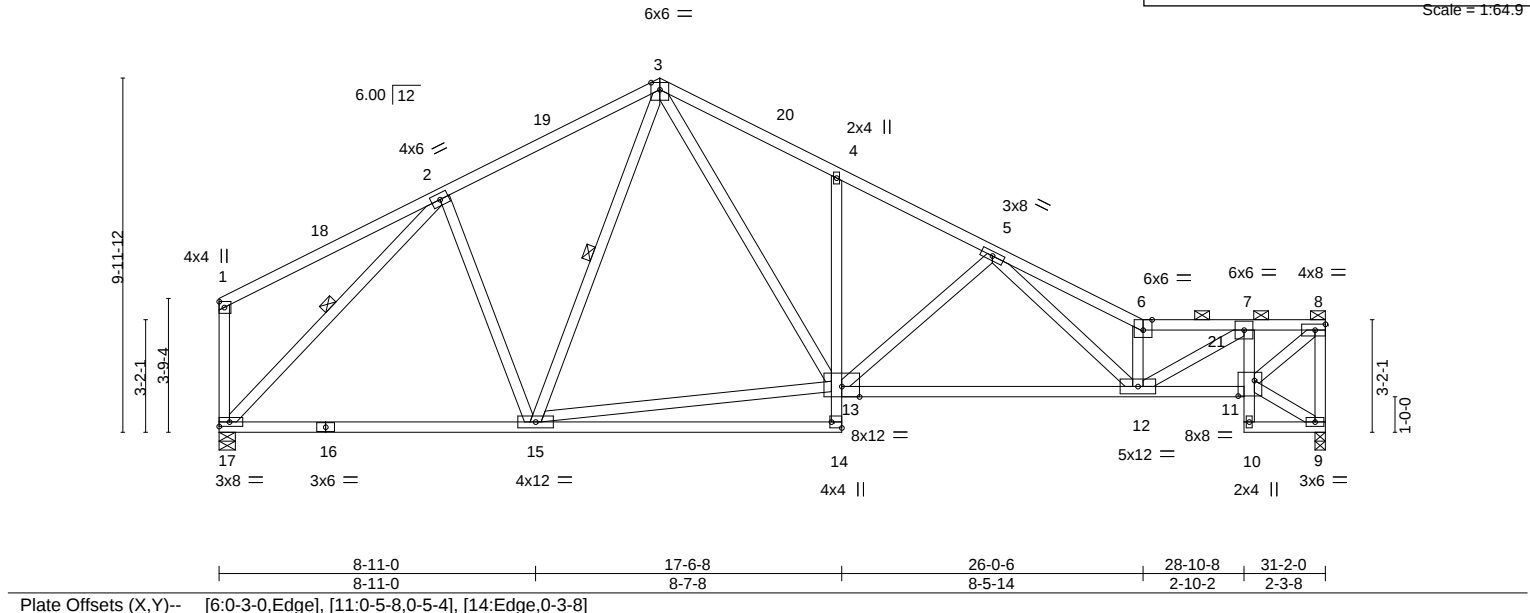


Plate Offsets (X,Y)--		[6:0-3-0,Edge], [11:0-5-8,0-5-4], [14:Edge,0-3-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.53	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.85	Vert(LL) -0.18 12-13 >999 240
BCLL 0.0	Rep Stress Incr YES	WB 0.70	Vert(CT) -0.49 12-13 >749 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.17 9 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 165 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-9-1 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-15, 2-17

REACTIONS.

(size) 9=0-3-8, 17=0-5-8
Max Horz 17=-216(LC 8)
Max Uplift 9=-252(LC 13), 17=-200(LC 12)
Max Grav 9=1698(LC 1), 17=1698(LC 1)

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

TOP CHORD 2-3=-1638/335, 3-4=-2458/483, 4-5=-2469/384, 5-6=-4224/606, 6-7=-3902/522,
7-8=-1867/274, 8-9=-1628/266, 1-17=-278/105
BOT CHORD 15-17=-225/1310, 4-13=-422/190, 12-13=-405/2769, 11-12=-337/1983, 7-11=-1397/212
WEBS 13-15=-163/1278, 3-13=-331/1497, 5-13=-863/231, 5-12=-184/1353, 6-12=-2117/362,
7-12=-267/2245, 8-11=-378/2397, 2-17=-1829/253

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 31-0-4 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 252 lb uplift at joint 9 and 200 lb uplift at joint 17.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	A6	Roof Special	3	1		

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

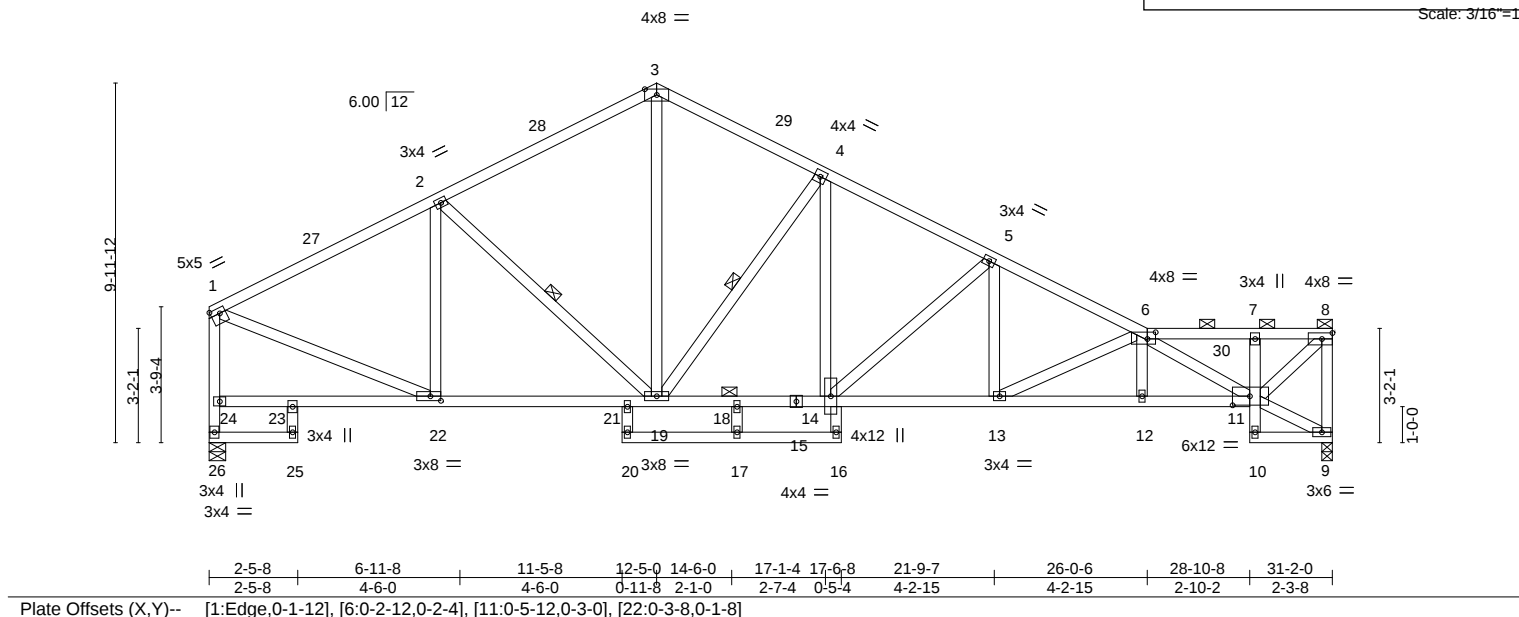
8.430 s Feb 12 2021 MiTek Industries, Inc.

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-qJOS8EFmfPcmvf_XZKpCGoU8bfvQVEuwA3TjRdzhb51

2-5-8 6-11-8 11-5-8 12-5-0 17-1-4 17-6-8 21-9-7 26-0-6 28-10-8 31-2-0
 2-5-8 4-6-0 4-6-0 0-11-8 4-8-4 0-5-4 4-2-15 4-2-15 2-10-2 2-3-8

03/08/2021

Scale: 3/16"=1'



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.14 13-14 >999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.32 13-14 >999	180			
BCLL	0.0	Rep Stress Incr	YES	WB	0.63	Horz(CT)	0.18 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
										Weight: 171 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-4-3 max.): 6-8.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 2-19, 4-19
 JOINTS 1 Brace at Jt(s): 8, 18

REACTIONS.

(size) 9=0-3-8, 26=0-5-8
 Max Horz 26=-216(LC 8)
 Max Uplift 9=-251(LC 13), 26=-199(LC 12)
 Max Grav 9=1701(LC 1), 26=1701(LC 1)

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

TOP CHORD 1-2=-1855/300, 2-3=-1785/330, 3-4=-1743/350, 4-5=-2424/380, 5-6=-3196/444,
 6-7=-1745/244, 7-8=-1658/233, 8-9=-1642/260, 24-26=-1665/226, 1-24=-1632/235
 BOT CHORD 21-22=-260/1561, 19-21=-240/1531, 18-19=-256/2053, 14-18=-256/2053,
 13-14=-392/2815, 12-13=-561/3774, 11-12=-564/3771
 WEBS 1-22=-179/1585, 2-22=-488/158, 3-19=-167/1013, 5-14=-961/221, 5-13=-42/541,
 6-13=-1048/187, 6-11=-2393/330, 8-11=-345/2253, 4-14=-100/707, 4-19=-1027/265

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 12-5-0, Exterior(2R) 12-5-0 to 15-5-0, Interior(1) 15-5-0 to 31-0-4 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
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 251 lb uplift at joint 9 and 199 lb uplift at joint 26.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

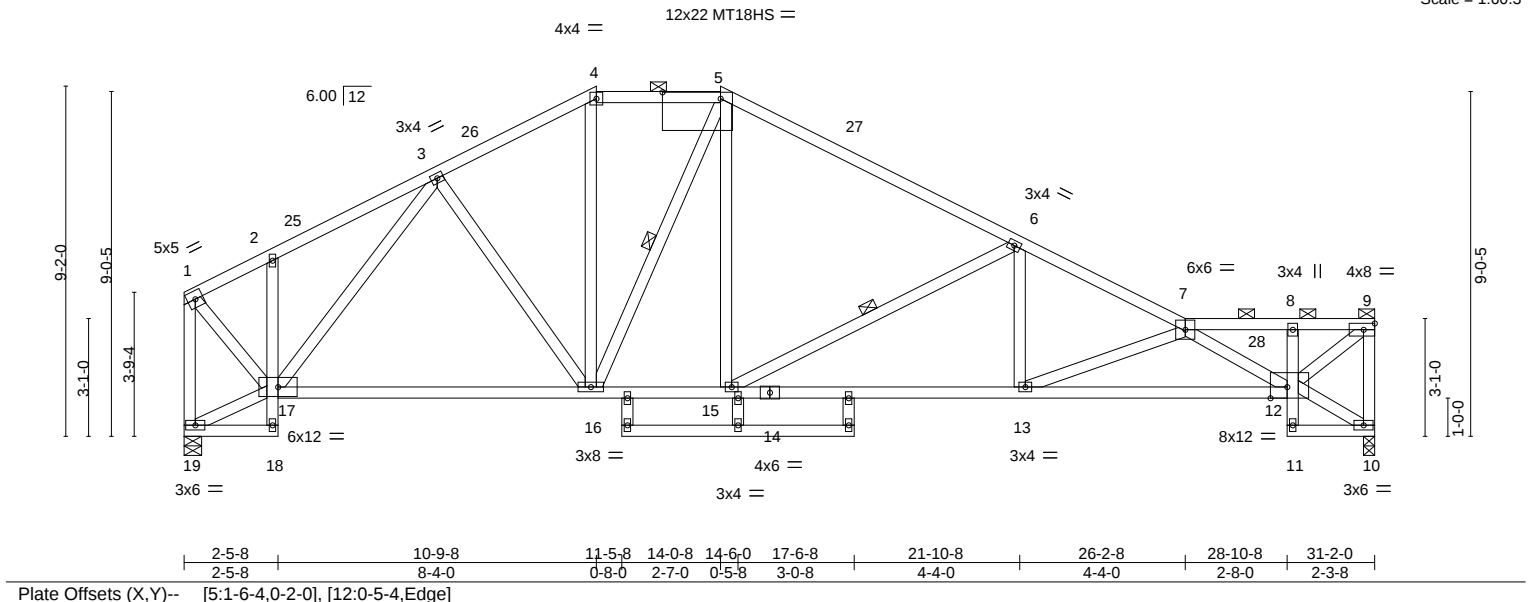
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2630561	Truss A7	Truss Type Roof Special	Qty 1	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. LEE S SUMMIT MISSOURI			
ID:VPVqvFnP0P0b1j2ZrIQeqzdKbx-IVyqMaFOQikdXpZk61KRp?1CH3FIeb3PJCHz4zhb50			Feb 12 2021 14:49:5869			
2-5-8 6-7-8 10-9-8 11-5-8 14-0-8 17-6-8 21-10-8 26-2-8 28-10-8 31-2-0			2-5-8 4-2-0 4-2-0 0-8-0 2-7-0 3-6-0 4-4-0 4-4-0 2-8-0 2-3-8			
Scale = 1:60.3						



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.15 13-15 >999	MT20	197/144		
TCDL	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.37 13-15 >990	MT18HS	197/144		
BCLL	0.0	Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.20 10 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 173 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-2-2 max.): 4-5, 7-9.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 5-16, 6-15

REACTIONS.		FORCES.	
(size)	10=0-3-8, 19=0-5-8	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
Max Horz	19=-205(LC 8)	1-2=-1117/231, 2-3=-1199/291, 3-4=-1803/378, 4-5=-1531/370, 5-6=-2079/387,	
Max Uplift	10=-244(LC 13), 19=-187(LC 12)	6-7=-3259/467, 7-8=-1837/241, 8-9=-1736/233, 9-10=-1638/246, 1-19=-1682/270	
Max Grav	10=1698(LC 1), 19=1698(LC 1)	2-17=-322/142, 16-17=-283/1517, 15-16=-245/1705, 13-15=-436/2898, 12-13=-573/3789,	
		8-12=-252/86	
		5-15=-106/705, 9-12=-337/2307, 6-13=-0/575, 7-13=-964/182, 7-12=-2315/346,	
		5-16=-545/155, 6-15=-1326/320, 4-16=-109/494, 3-17=-869/157, 1-17=-193/1482	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 10-9-8, Exterior(2E) 10-9-8 to 14-0-8, Exterior(2R) 14-0-8 to 17-0-8, Interior(1) 17-0-8 to 31-0-4 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
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 244 lb uplift at joint 10 and 187 lb uplift at joint 19.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

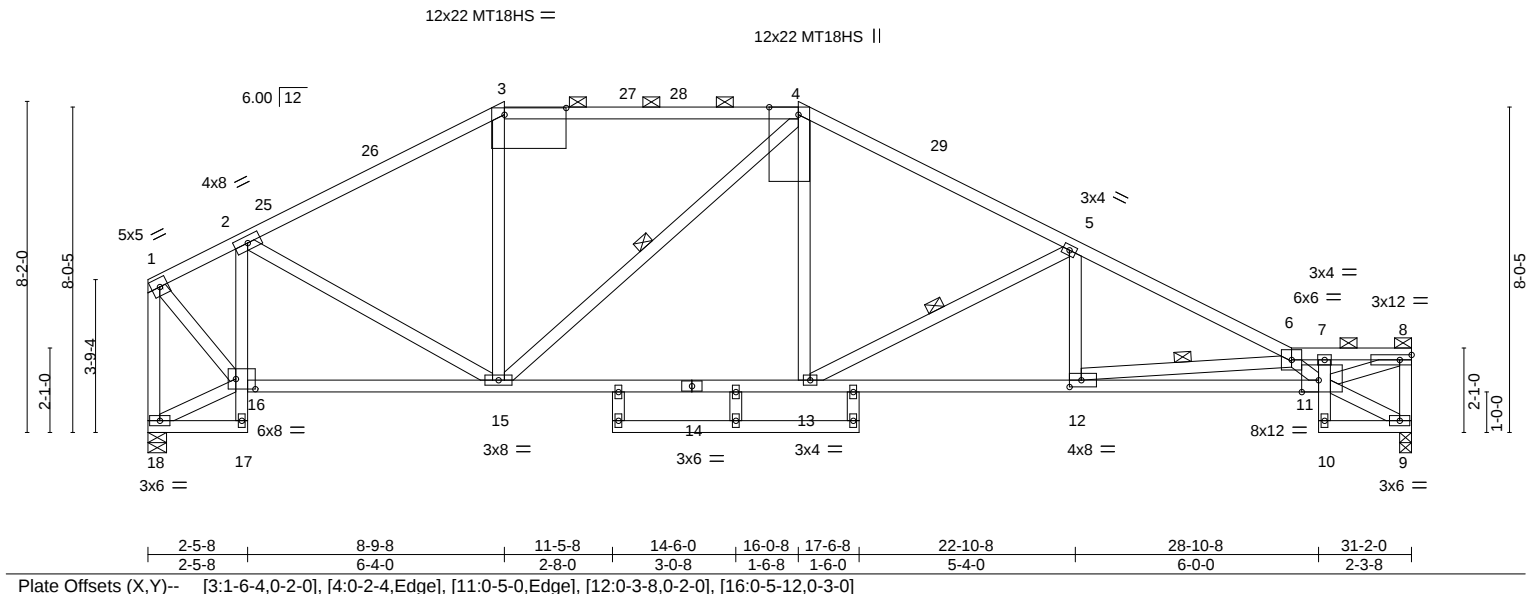
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	A8	Roof Special	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. Lm7j6ESNvuQ6czswrWcMs1hO2yzhb5_			
			Job Reference (optional)			
			ID:VPVqvFnP0P0b1j2tZrOqzdKbx-Et4bmFHeyK			
			22-10-8 5-4-0 28-2-8 5-4-0 28-10-8 31-2-0 0-8-0 2-3-8			
			2-5-8 8-9-8 11-5-8 16-0-8 17-6-8 22-10-8 28-2-8 28-10-8 31-2-0 0-8-0 2-3-8			
			2-5-8 6-4-0 2-8-0 4-7-0 1-6-0 5-4-0			
			Scale = 1:56.8			



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.19 11-12 >999 240	MT20		197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.45 11-12 >831 180	MT18HS		197/144	
BCLL	0.0	Rep Stress Incr	YES	WB	0.88	Horz(CT)	0.28 9 n/a n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
								Weight: 158 lb		FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 3-4: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (2-8-12 max.): 3-4, 6-8.
BOT CHORD	2x4 SPF No.2 *Except* 11-14: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 6-12, 4-15, 5-13

REACTIONS. (size) 9=0-3-8, 18=0-5-8
Max Horz 18=-196(LC 8)
Max Uplift 9=-228(LC 13), 18=-168(LC 12)
Max Grav 9=1698(LC 1), 18=1698(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-1133/228, 2-3=-1916/346, 3-4=-1604/360, 4-5=-2363/402, 5-6=-3491/488,
6-7=-3829/485, 7-8=-3407/456, 8-9=-1536/223, 1-18=-1656/254
BOT CHORD 2-16=-1061/251, 15-16=-202/1052, 13-15=-237/1983, 12-13=-422/3080, 11-12=-752/5248,
9-10=-54/339
WEBS 2-15=-129/688, 3-15=-15/298, 4-13=-80/699, 5-12=-4/510, 6-12=-2192/370,
6-11=-1981/331, 9-11=-308/75, 8-11=-499/3597, 4-15=-618/138, 5-13=-1217/308,
1-16=-204/1510

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-9-8, Exterior(2R) 8-9-8 to 11-9-8, Interior(1) 11-9-8 to 16-0-8, Exterior(2R) 16-0-8 to 19-0-8, Interior(1) 19-0-8 to 31-0-4 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) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) The Fabrication Tolerance at joint 3 = 8%, joint 4 = 4%
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint 9 and 168 lb uplift at joint 18.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

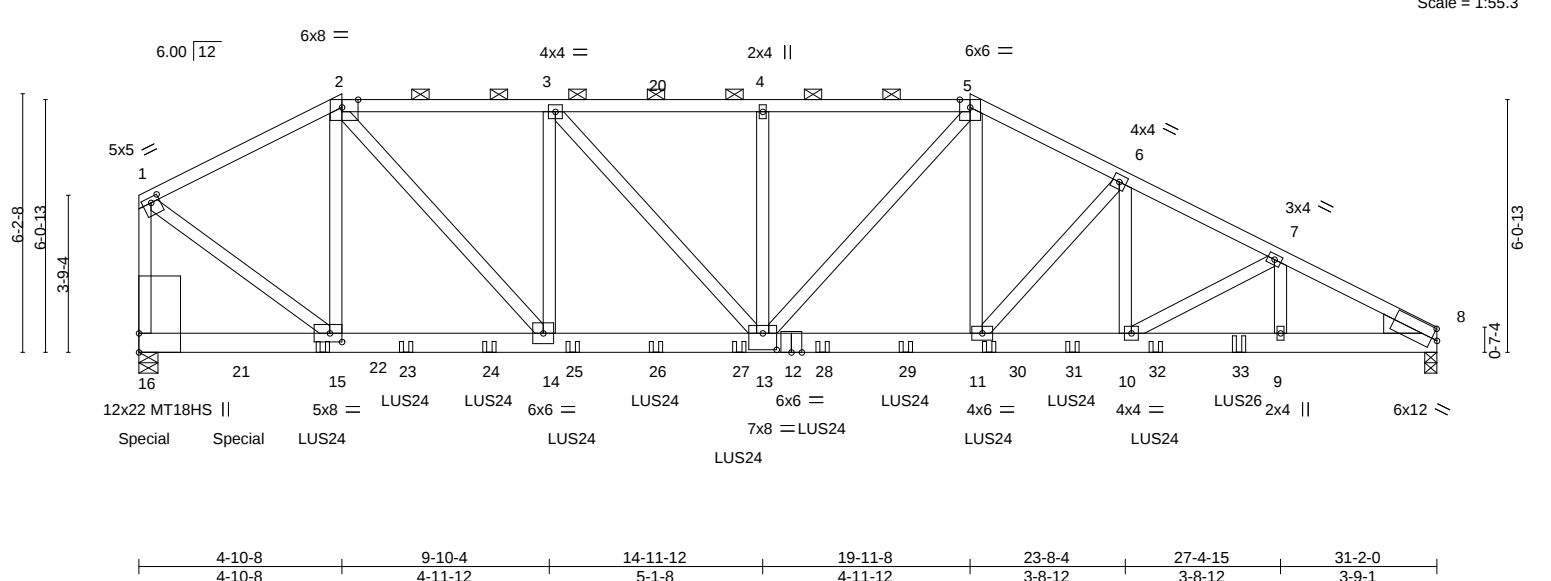


Plate Offsets (X,Y)--		[1:0-2-8,0-1-8], [2:0-4-10,Edge], [8:0-1-11,0-3-1], [13:0-4-0,0-4-12], [15:0-3-8,0-2-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	2-0-0	TC 0.81	in (loc) l/defl L/d
TCDL 20.0	Plate Grip DOL 1.15	BC 0.99	Vert(LL) -0.18 11-13 >999 240
BCLL 0.0	Lumber DOL 1.15	WB 0.67	Vert(CT) -0.39 11-13 >958 180
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.08 8 n/a n/a
	Code IRC2018/TPI2014		
			PLATES GRIP
			MT20 197/144
			MT18HS 197/144
			Weight: 359 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x6 SPF No.2 *Except*
8-12: 2x6 SP 2400F 2.0E

WEBS 2x4 SPF No.2

WEDGE

Right: 2x6 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-9-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-7-5 max.): 2-5.

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

REACTIONS. (size) 8=0-3-8, 16=0-5-8
Max Horz 16=-170(LC 6)
Max Uplift 8=-1080(LC 9), 16=-1092(LC 8)
Max Grav 8=5624(LC 1), 16=6534(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5025/890, 2-3=-7508/1330, 3-4=-8684/1593, 4-5=-8687/1595, 5-6=-8939/1695, 6-7=-10276/1962, 7-8=-10607/2059, 1-16=-5661/981
BOT CHORD 14-15=-759/4482, 13-14=-1264/7505, 11-13=-1313/7920, 10-11=-1636/9158, 9-10=-1784/9373, 8-9=-1784/9373
WEBS 2-15=-1683/321, 2-14=-840/4650, 3-14=-1885/421, 3-13=-415/1784, 4-13=-564/170, 5-13=-236/1301, 5-11=-566/2683, 6-11=-1745/459, 6-10=-362/1638, 7-10=-250/170, 1-15=-954/5482

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1080 lb uplift at joint 8 and 1092 lb uplift at joint 16.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Continued on page 2



February 25, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	de Ridge/MO
2630561	A10	Hip Girder	1	2	Job Reference (optional)	
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Feb 12 2021 MiTek Industries, Inc. 14965872		
				ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-XyTpg9NIFkmaayBeMBZUJhuqqWJM2QuZTGshXzhb58		

NOTES-

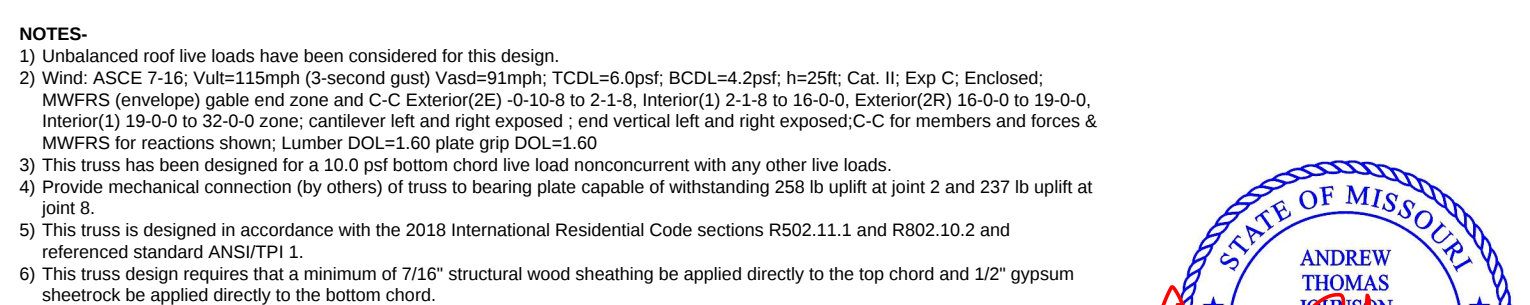
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 4-5-0 from the left end to 14-5-0 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 16-5-0 from the left end to 24-5-0 to connect truss(es) to front face of bottom chord.
- Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent at 26-5-0 from the left end to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 601 lb down and 93 lb up at 0-1-12, and 593 lb down and 100 lb up at 2-5-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

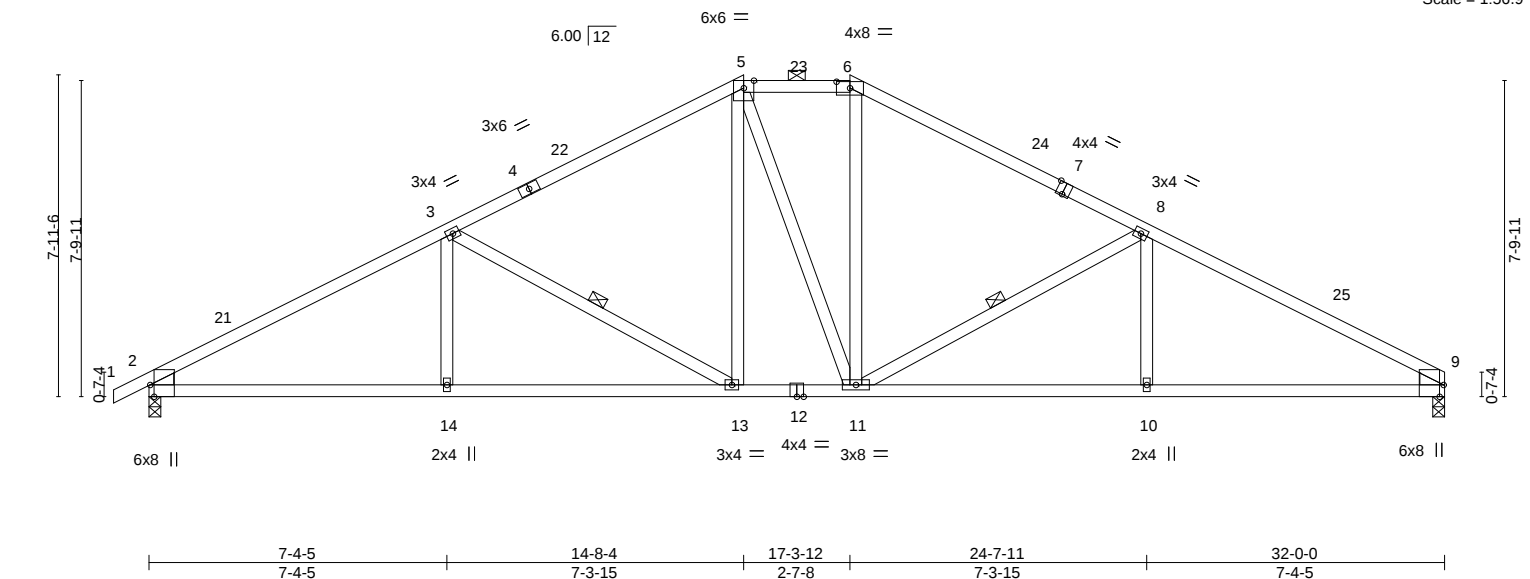
- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 - Uniform Loads (plf)
 - Vert: 1-2=-90, 2-5=-90, 5-8=-90, 16-17=-20
 - Concentrated Loads (lb)
 - Vert: 16=-601(F) 21=-593(F) 22=-585(F) 23=-595(F) 24=-595(F) 25=-595(F) 26=-595(F) 27=-595(F) 28=-595(F) 29=-595(F) 30=-585(F) 31=-585(F) 32=-585(F) 33=-1046(F)

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

8.430 s Feb 12 2021 MiTek Industries, Inc. **LEE'S SUMMIT MISSOURI** Feb 12 2021 02:25:02 Page 1
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February 25, 2021



LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.81	Vert(LL) -0.14 13-14 >999 240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.81	Vert(CT) -0.35 13-14 >999 180		
BCLL 0.0	Rep Stress Incr YES	WB 0.27	Horz(CT) 0.13 9 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 132 lb	FT = 20%

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

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-9-7 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 3-13, 8-11

REACTIONS. (size) 2=0-3-8, 9=0-3-8
 Max Horz 2=143(LC 12)
 Max Uplift 2=-260(LC 12), 9=-240(LC 13)
 Max Grav 2=1840(LC 1), 9=1759(LC 1)

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

TOP CHORD	2-3=-3047/410, 3-5=-2262/366, 5-6=-1881/371, 6-8=-2263/368, 8-9=-3053/412
BOT CHORD	2-14=-404/2602, 13-14=-404/2602, 11-13=-168/1879, 10-11=-278/2609, 9-10=-278/2609
WEBS	3-14=0/275, 3-13=-841/268, 5-13=-86/506, 6-11=-91/512, 8-11=-847/270, 8-10=0/275

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-8-4, Exterior(2E) 14-8-4 to 17-3-12, Exterior(2R) 17-3-12 to 21-6-11, Interior(1) 21-6-11 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 260 lb uplift at joint 2 and 240 lb uplift at joint 9.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

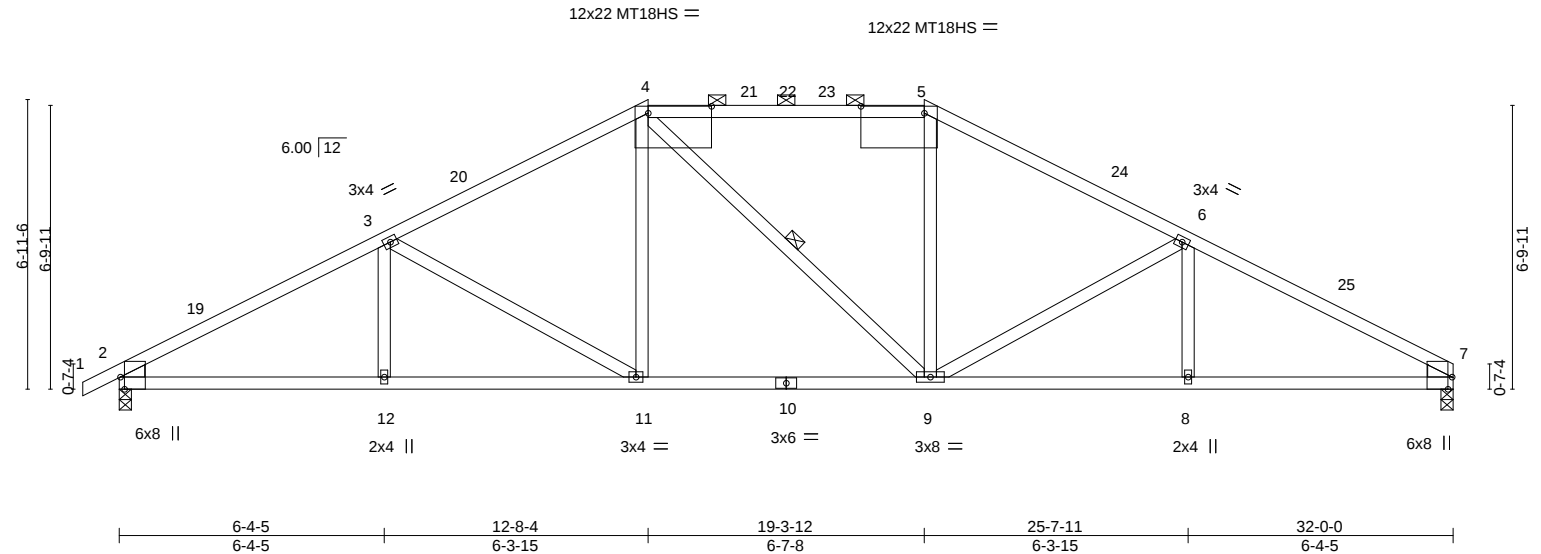


WARNING – verify design parameters to READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH-7473 Rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	B3	Hip	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, Missouri	
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-6fJ6cdK9?YUmFk0tIRr2GHGNUJNePvynfbAizhb4w					Job Reference (optional) LEE'S SUMMIT MISSOURI	
0-10-8 0-10-8		6-4-5 6-4-5	12-8-4 6-3-15	19-3-12 6-7-8	25-7-11 6-3-15	32-0-0 6-4-5
6-3-15/2021						
Scale = 1:55.3						



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.14 11-12	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.32 11-12	>999	180	MT18HS	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.54	Horz(CT)	0.13 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 127 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (2-2-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied.
 WEBS 1 Row at midpt 4-9

REACTIONS.

(size) 2=0-3-8, 7=0-3-8
 Max Horz 2=126(LC 12)
 Max Uplift 2=-264(LC 12), 7=-244(LC 13)
 Max Grav 2=1840(LC 1), 7=1759(LC 1)

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

TOP CHORD 2-3=-3067/424, 3-4=-2469/387, 4-5=-2100/388, 5-6=-2471/388, 6-7=-3075/427
 BOT CHORD 2-12=-409/2629, 11-12=-409/2629, 9-11=-217/2099, 8-9=-301/2638, 7-8=-301/2638
 WEBS 3-11=-617/219, 4-11=-51/486, 5-9=-43/487, 6-9=-626/222

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-8-4, Exterior(2R) 12-8-4 to 16-11-3, Interior(1) 16-11-3 to 19-3-12, Exterior(2R) 19-3-12 to 23-6-11, Interior(1) 23-6-11 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) The Fabrication Tolerance at joint 4 = 16%, joint 5 = 16%
- 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 264 lb uplift at joint 2 and 244 lb uplift at joint 7.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

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

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job

2630561

Truss

B4

Truss Type

Hip

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

8.430 s Feb 12 2021 MiTek Industries, Inc.

0-10-8

5-4-5

10-8-4

16-0-0

21-3-12

26-7-11

32-0-0

0-10-8

5-4-5

5-3-15

5-3-12

5-3-12

5-3-15

5-4-5

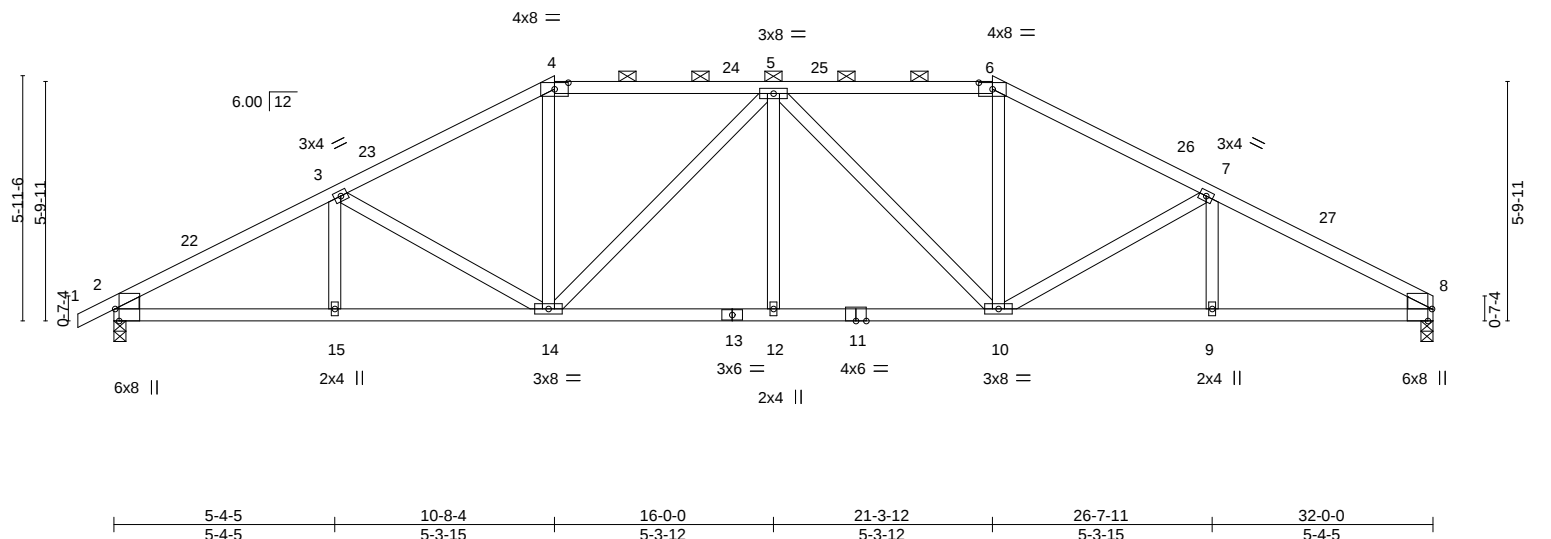
Job Reference (optional)

LE'S SUMMIT, MISSOURI

14965876

63/08/2021

Scale = 1:55.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.61	Vert(LL)	-0.15	12	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.32	10-12	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.13	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 133 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF 1650F 1.5E *Except*

11-13: 2x4 SPF No.2

WEBS 2x4 SPF No.2

WEDGE

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except

2-0-0 oc purlins (3-6-3 max.): 4-6.

BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 8=0-3-8

Max Horz 2=107(LC 12)

Max Uplift 2=-268(LC 12), 8=-248(LC 13)

Max Grav 2=1840(LC 1), 8=1759(LC 1)

FORCES.

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

TOP CHORD 2-3=-3075/433, 3-4=-2654/395, 4-5=-2282/389, 5-6=-2283/387, 6-7=-2657/398,

7-8=-3085/436

BOT CHORD 2-15=-409/2646, 14-15=-409/2646, 12-14=-248/2593, 10-12=-248/2593, 9-10=-320/2657,

8-9=-320/2657

WEBS 3-14=-423/167, 4-14=-69/659, 5-14=-582/133, 5-10=-580/133, 6-10=-69/661,

7-10=-433/170

- NOTES-**

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-8-4, Exterior(2R) 10-8-4 to 14-11-3, Interior(1) 14-11-3 to 21-3-12, Exterior(2R) 21-3-12 to 25-6-11, Interior(1) 25-6-11 to 32-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 268 lb uplift at joint 2 and 248 lb uplift at joint 8.

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

7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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



February 25, 2021

Job

2630561

Truss

B5

Truss Type

ROOF SPECIAL

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-31Rs1JMPXAIUU2AGajUJ8hMdPH_M6FbFey8iEczhb4u

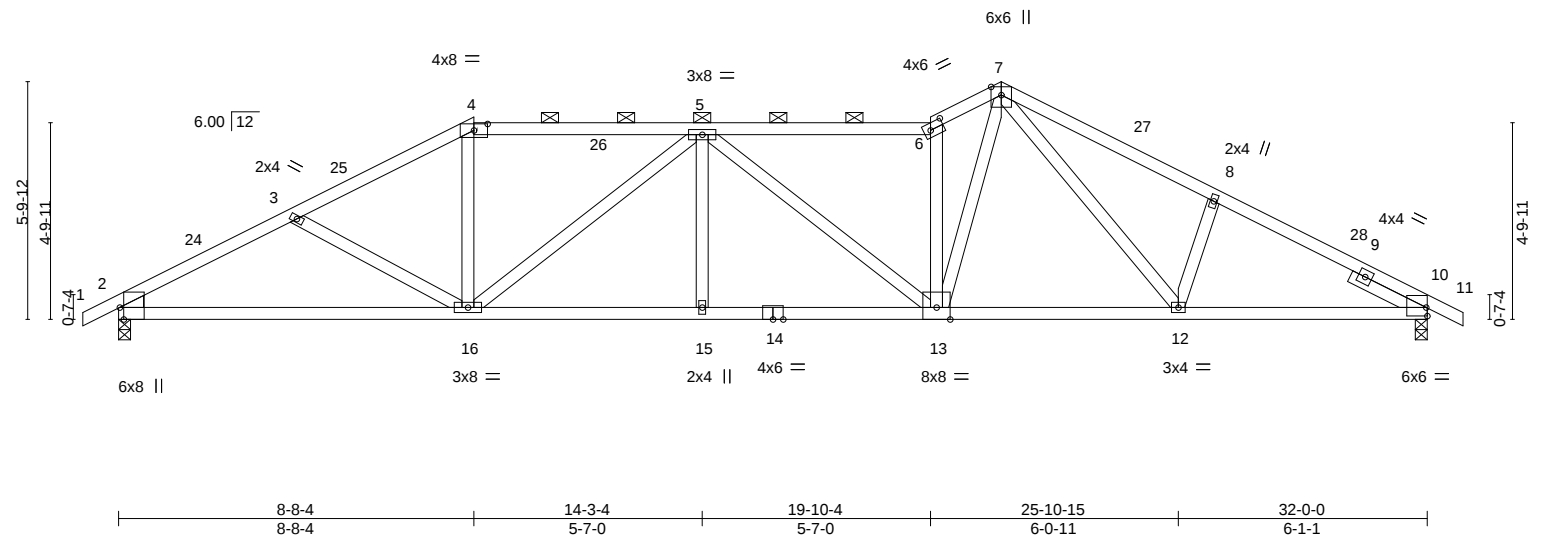
19-10-4 21-7-0 26-9-5 32-0-0 32-10-8

5-7-0 1-8-12 5-2-5 5-2-11 0-10-8

0-10-8 4-4-5 8-8-4 14-3-4 19-10-4 21-7-0 26-9-5 32-0-0 32-10-8

0-10-8 4-4-5 4-3-15 5-7-0 5-7-0 1-8-12 5-2-5 5-2-11 0-10-8

Scale = 1:56.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.19	15	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.91	Vert(CT)	-0.42	13-15	>909	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.79	Horz(CT)	0.14	10	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
									Weight: 134 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (2-9-2 max.): 4-6.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEDGE	
Left: 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 -t 2-0-0	

REACTIONS.	(size) 2=0-3-8, 10=0-3-8
Max Horz	2=-100(LC 17)
Max Uplift	2=-308(LC 12), 10=-211(LC 13)
Max Grav	2=1830(LC 1), 10=1844(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3067/536, 3-4=-2789/484, 4-5=-2440/469, 5-6=-2881/463, 6-7=-3214/537, 7-8=-2847/467, 8-10=-2969/419
BOT CHORD	2-16=-498/2638, 15-16=-467/3117, 13-15=-467/3117, 12-13=-253/2235, 10-12=-303/2563
WEBS	4-16=-66/746, 5-16=-865/169, 5-13=-428/122, 6-13=-1722/343, 7-13=-385/2128, 7-12=-156/485, 8-12=-319/180

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-8-4, Exterior(2R) 8-8-4 to 11-8-4, Interior(1) 11-8-4 to 21-7-0, Exterior(2R) 21-7-0 to 24-7-0, Interior(1) 24-7-0 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 308 lb uplift at joint 2 and 211 lb uplift at joint 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.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25,2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	B6	ROOF SPECIAL	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, MO
0-10-8 6-8-4 12-3-4 17-10-4 19-10-4 23-3-12 27-7-11 32-10-8						0-10-8 6-8-4 5-7-0 5-7-0 2-0-0 3-5-8 4-3-15 4-4-5 0-10-8
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-QYcS?Nf3n?CkLKfi8WnD6RzK5fgaC7XiGdpJVzhb4s						03/08/2021
Scale = 1:57.1						

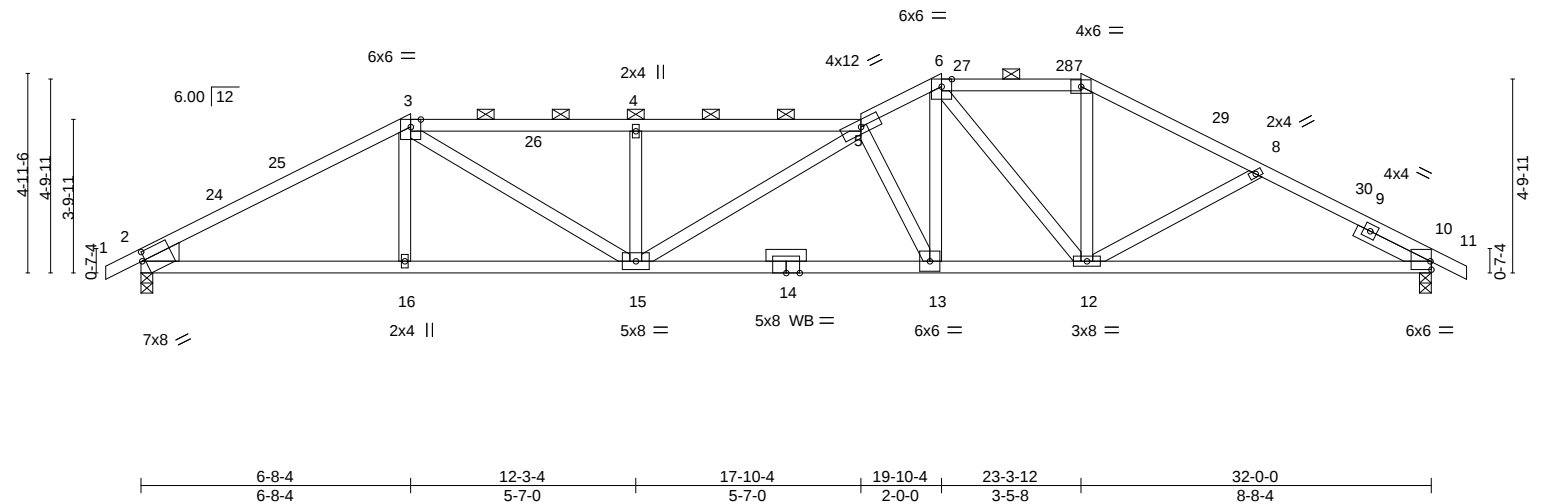


Plate Offsets (X,Y)-- [2:0-0-15,0-2-10], [10:Edge,0-2-8]		LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL 25.0		Plate Grip DOL 1.15		TC 0.74		Vert(LL) -0.23 13-15 >999 240		MT20		197/144			
TCDL 20.0		Lumber DOL 1.15		BC 0.98		Vert(CT) -0.57 13-15 >672 180							
BCLL 0.0		Rep Stress Incr YES		WB 0.59		Horz(CT) 0.15 10 n/a n/a							
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS						Weight: 131 lb		FT = 20%	

LUMBER-
 TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 OTHERS 2x4 SPF No.2
 WEDGE
 Left: 2x6 SPF No.2
 SLIDER Right 2x4 SPF No.2 -t 2-0-0

BRACING-
 TOP CHORD Structural wood sheathing directly applied, except
 2-0-0 oc purlins (2-2-0 max.): 3-5, 6-7.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS. (size) 2=0-3-8, 10=0-3-8
 Max Horz 2=-83(LC 17)
 Max Uplift 2=-300(LC 12), 10=-193(LC 13)
 Max Grav 2=1830(LC 1), 10=1844(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-3059/487, 3-4=-3845/620, 4-5=-3845/620, 5-6=-3334/559, 6-7=-2402/449,
 7-8=-2750/456, 8-10=-2946/483
 BOT CHORD 2-16=-416/2624, 15-16=-418/2620, 13-15=-506/3851, 12-13=-335/2876, 10-12=-360/2538
 WEBS 3-15=-247/1450, 4-15=-629/196, 5-13=-1984/393, 6-13=-307/1877, 6-12=-852/163,
 7-12=-89/751

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-4, Exterior(2R) 6-8-4 to 9-8-4, Interior(1) 9-8-4 to 19-10-4, Exterior(2R) 19-10-4 to 22-10-4, Interior(1) 22-10-4 to 23-3-12, Exterior(2R) 23-3-12 to 26-3-12, Interior(1) 26-3-12 to 32-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 300 lb uplift at joint 2 and 193 lb uplift at joint 10.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job

2630561

Truss

B7

Truss Type

ROOF SPECIAL GIRDER

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

Lee's Summit, Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

Feb 12 2021 10:10K_4bV1iJZ?hxwNMrxzhb4r

0-10-8

4-8-4

8-4-5

12-2-3

15-10-4

17-10-4

21-7-0

25-3-12

28-7-11

32-0-0

0-10-8

4-8-4

3-8-1

3-9-13

3-8-1

2-0-0

3-8-12

3-8-12

3-3-15

3-4-5

0-10-8

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03/08/2021

Scale = 1:57.0

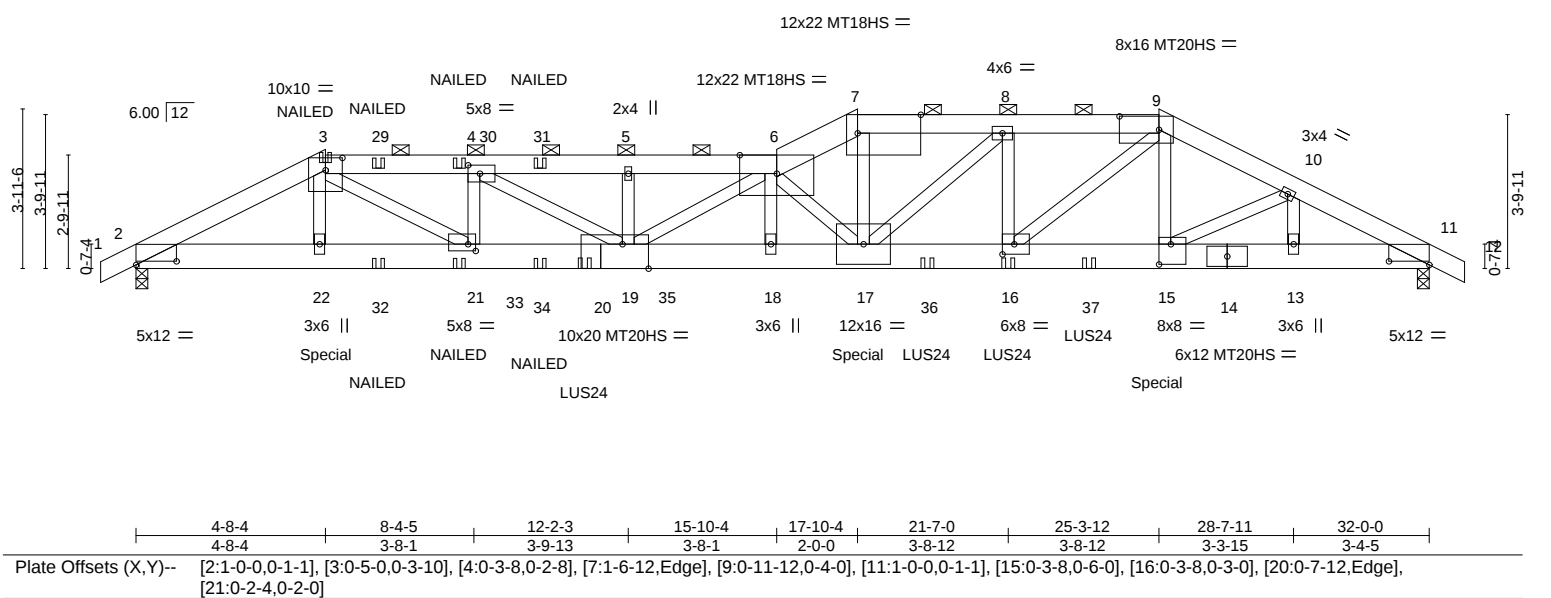
RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

Lee's Summit, Missouri

14965879



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	-0.45 18-19	>849	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.87	Vert(CT)	-0.98 18-19	>390	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	NO	WB 1.00	Horz(CT)	0.15 11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 222 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
3-6: 2x6 SP 2400F 2.0E, 6-7: 2x8 SP 2400F 2.0E
7-9: 2x6 SPF 2100F 1.8E
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
3-21,4-19,7-17,8-16: 2x4 SPF 1650F 1.5E

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins, except
2-0-0 oc purlins (2-1-2 max.): 3-6, 7-9.
BOT CHORD Rigid ceiling directly applied or 6-7-13 oc bracing.

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=-65(LC 30)
Max Uplift 2=-881(LC 8), 11=-865(LC 4)
Max Grav 2=3755(LC 1), 11=4140(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7630/1817, 3-4=-10739/2535, 4-5=-13340/3067, 5-6=-13340/3067, 6-7=-11728/2709,
7-8=-10790/2502, 8-9=-9653/2252, 9-10=-8335/1919, 10-11=-7919/1744
BOT CHORD 2-22=-1621/6811, 21-22=-1616/6786, 19-21=-2492/10735, 18-19=-3206/14326,
17-18=-3215/14358, 16-17=-2163/9652, 15-16=-1648/7450, 13-15=-1512/7019,
11-13=-1512/7019
WEBS 3-22=-73/396, 3-21=-1110/4671, 4-21=-2144/562, 4-19=-656/3033, 5-19=-470/148,
7-17=-1074/4601, 8-16=-1332/324, 9-15=-322/1262, 10-13=-440/133, 6-18=-507/143,
6-19=-1205/275, 6-17=-5501/1280, 8-17=-419/1584, 9-16=-688/3007, 10-15=-262/701

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 881 lb uplift at joint 2 and 865 lb uplift at joint 11.
7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 8-5-12 oc max. starting at 11-1-4 from the left end to 23-7-0 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

STATE OF MISSOURI

ANDREW THOMAS JOHNSON

NUMBER PE-2017018993

PROFESSIONAL ENGINEER

February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	de Ridge/MO	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/08/2021
2630561	B7	ROOF SPECIAL GIRDER	1	1	Job Reference (optional)		
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. 14965879							
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-xpgNtgPvbOFwzFT1pZYFIXWFKuMx20Fq9a6vNNzhb4q							
NOTES-							
12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 381 lb down and 144 lb up at 4-8-4, and 957 lb down and 311 lb up at 17-10-4, and 957 lb down and 311 lb up at 25-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.							
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).							
LOAD CASE(S) Standard							
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15							
Uniform Loads (plf)							
Vert: 1-3=-90, 3-6=-90, 6-7=-90, 7-9=-90, 9-12=-90, 23-26=-20							
Concentrated Loads (lb)							
Vert: 3=-87(F) 22=-381(F) 17=-957(F) 16=-344(F) 15=-957(F) 29=-87(F) 30=-87(F) 31=-87(F) 32=-49(F) 33=-49(F) 34=-49(F) 35=-392(F) 36=-344(F) 37=-344(F)							

Job

2630561

Truss

C1

Truss Type

Jack-Closed

Qty

5

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrOgezdKbx-xpgNtgvPvboFwzFT1pZYFIXWNTuU424jq9a6vNNzhb4q

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Scale = 1:39.2

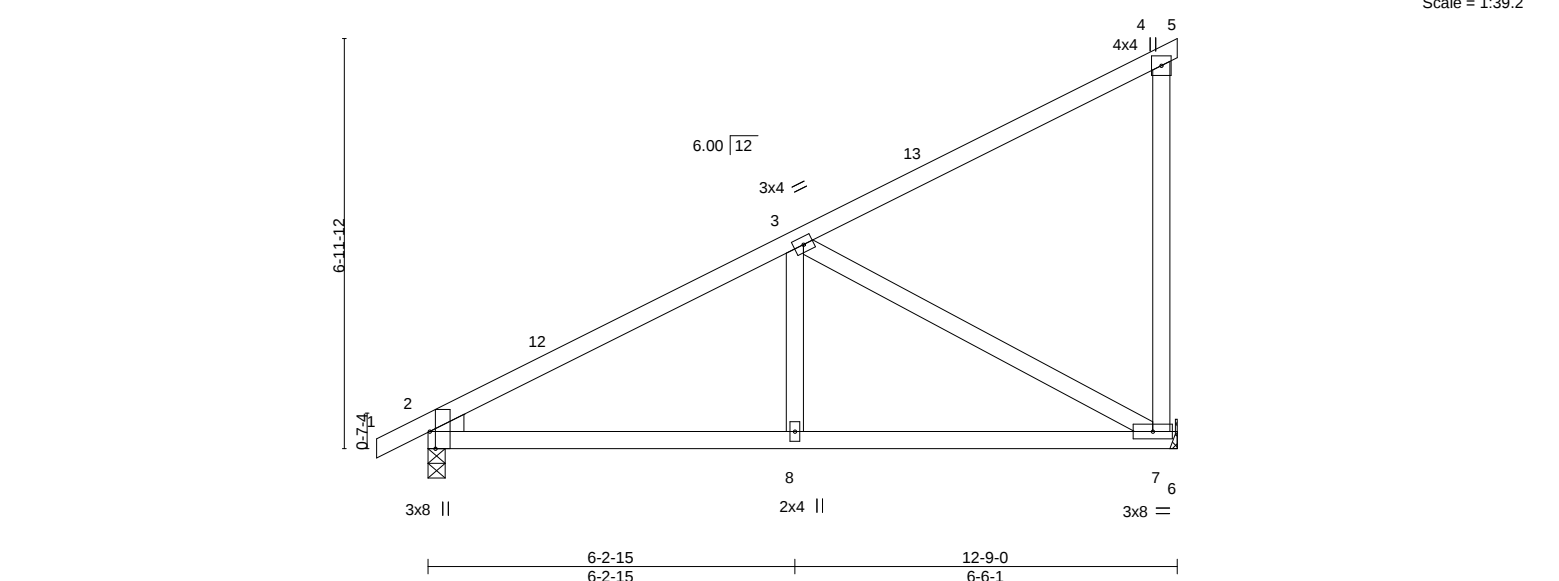


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51
TCDL 20.0	Lumber DOL	1.15	BC 0.35
BCLL 0.0	Rep Stress Incr	YES	WB 0.71
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.04 7-8 >999 240
			Vert(CT) -0.07 7-8 >999 180
			Horz(CT) 0.01 7 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 51 lb FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 7=Mechanical
Max Horz 2=279(LC 11)
Max Uplift 2=-99(LC 12), 7=-101(LC 9)
Max Grav 2=768(LC 1), 7=700(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-925/172
BOT CHORD 2-8=-301/742, 7-8=-301/742
WEBS 3-8=0/272, 3-7=-817/249

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 99 lb uplift at joint 2 and 101 lb uplift at joint 7.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

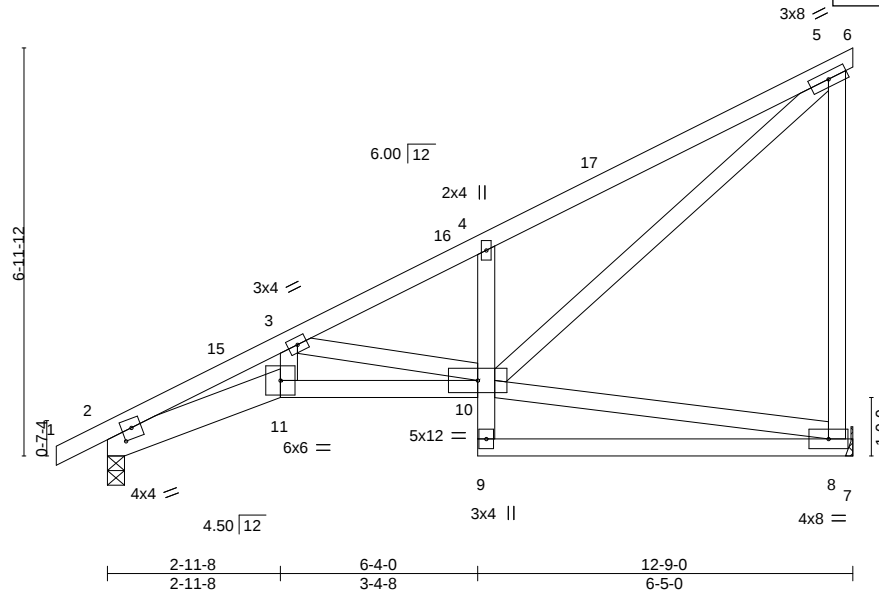


Plate Offsets (X,Y)-- [2:0-2-0,0-2-3]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.06	10-11	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.13	10-11	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.07	8	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 65 lb FT = 20%

TOP CHORD	2x4 SPF No.2
BOT CHORD	2x4 SPF No.2 *Except*
	2-11: 2x6 SPF No.2
WEBS	2x4 SPF No.2

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

(size) 8=Mechanical, 2=0-3-8
Max Horz 2=279(LC 11)
Max Uplift 8=-101(LC 9), 2=-98(LC 12)
Max Grav 8=700(LC 1), 2=768(LC 1)

TOP CHORD 2-3=-2053/386, 3-4=-1061/187, 4-5=-1167/298, 5-8=-624/315
BOT CHORD 2-11=-749/1835, 10-11=-679/1678, 4-10=-528/261
WEBS 3-11=-197/517, 3-10=-766/292, 5-10=-449/1219

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-9-0 zone; cantilever left and right exposed ; and vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 8 and 98 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021



WARNING – verify design parameters READ NOTES ON THIS AND INCLUDED W/ITER REFERENCE PAGE MH-173-167, 3/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2630561

Truss

C3

Truss Type

Jack-Closed

Qty

3

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. 16 Feb 14 13:00:35 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-tBo7IMQA7?VeDzdQx_bjNycgri5AW3R7dub0SGzhb4o

0-10-8

2-11-8

10-4-0

12-9-0

0-10-8

2-11-8

7-4-8

2-5-0

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Scale = 1:39.4

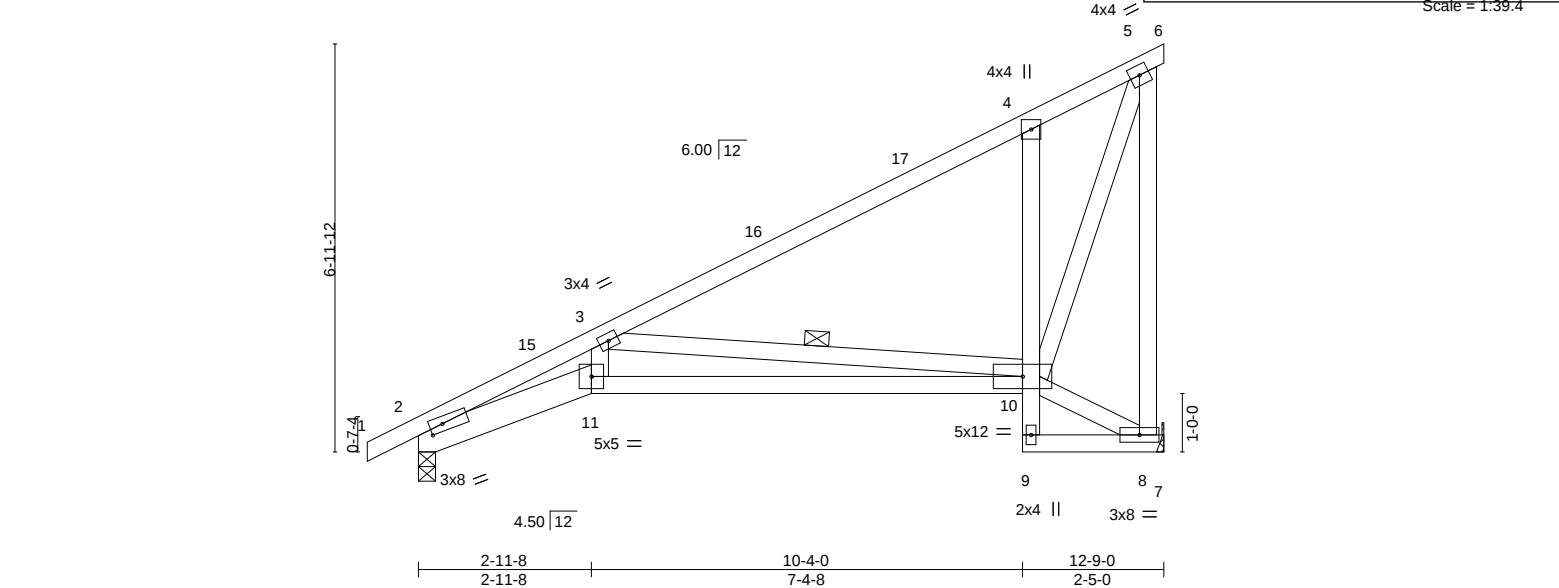


Plate Offsets (X,Y)--		[2:0-2-11,0-1-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.64	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.69	Vert(LL) -0.11 10-11 >999 240
BCLL 0.0	Rep Stress Incr YES	WB 0.44	Vert(CT) -0.28 10-11 >528 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.12 8 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 65 lb FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except*	BOT CHORD	Rigid ceiling directly applied.
	2-11: 2x6 SPF No.2	WEBS	1 Row at midpt 3-10
WEBS	2x4 SPF No.2		

REACTIONS.	
(size)	8=Mechanical, 2=0-3-8
Max Horz	2=279(LC 11)
Max Uplift	8=-101(LC 9), 2=-98(LC 12)
Max Grav	8=700(LC 1), 2=768(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-2357/446, 3-4=-552/106, 4-5=-454/170, 5-8=-676/280
BOT CHORD	2-11=-816/2152, 10-11=-763/1988, 4-10=-565/313
WEBS	3-11=-158/627, 3-10=-1622/554, 5-10=-350/923

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 12-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 8 and 98 lb uplift at joint 2.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job

2630561

Truss

C4

Truss Type

Jack-Closed

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965883

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-MOMVVIRouJdVq7CcVh6yW8nCc6QpFT9GrYLa_izhb4n

Lee's Summit, Missouri

0-10-8

2-3-8

4-2-7

6-9-12

7-3-12

11-4-0

12-9-0

0-10-8

2-3-8

1-10-15

2-7-5

0-6-0

4-0-4

1-5-0

03/08/2021

Scale = 1:41.0

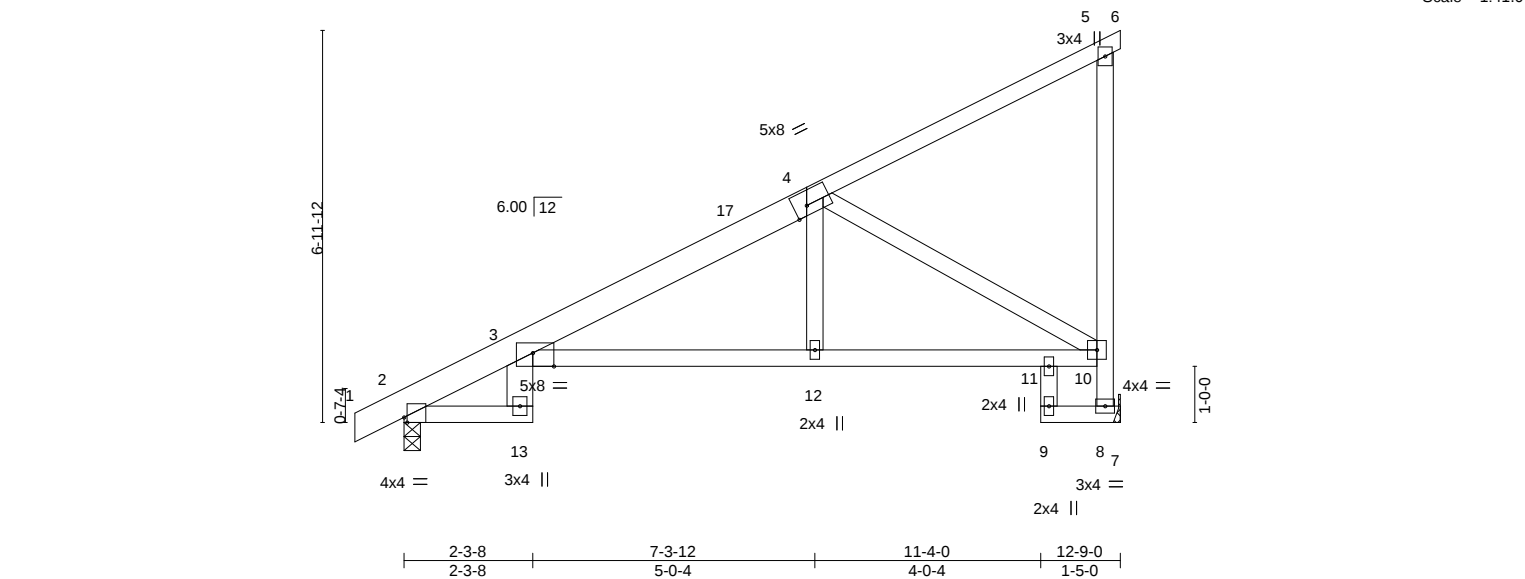


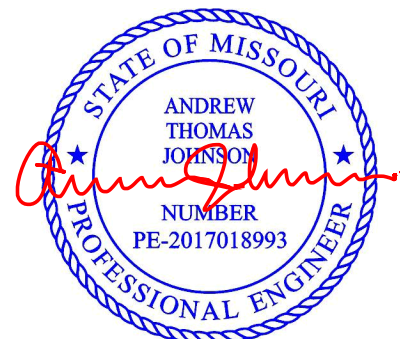
Plate Offsets (X,Y)--	[2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-2-12,Edge]									
LOADING (psf)	SPACING-		CSI.		DEFL.				PLATES	
TCLL 25.0	2-0-0		TC 0.93		in (loc) l/defl L/d				MT20 197/144	
TCDL 20.0	Plate Grip DOL 1.15		BC 0.73		Vert(LL) -0.15 3-12 >999 240					
BCLL 0.0	Lumber DOL 1.15		WB 0.61		Vert(CT) -0.34 3-12 >446 180					
BCDL 10.0	Rep Stress Incr YES		Matrix-AS		Horz(CT) 0.21 8 n/a n/a					
	Code IRC2018/TPI2014								Weight: 59 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2 *Except* 4-6: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	2x4 SPF No.2 *Except* 3-13: 2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		

REACTIONS.	(size) 8=Mechanical, 2=0-3-8 Max Horz 2=280(LC 11) Max Uplift 8=-100(LC 9), 2=-98(LC 12) Max Grav 8=700(LC 1), 2=768(LC 1)
-------------------	---

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-15=-512/92, 3-4=-984/164, 8-10=-674/218
BOT CHORD	3-12=-334/882, 11-12=-331/889, 10-11=-352/890
WEBS	4-12=0/253, 4-10=-993/274

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-12, Interior(1) 2-0-12 to 12-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint 8 and 98 lb uplift at joint 2.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25,2021

Job

2630561

Truss

C5

Truss Type

HALF HIP

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965884

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-MOMVViRouJdVq7CcVh6yWAsmY6PzFWEGrYLa_izhb4n

Lee's Summit, Missouri

03/08/2021

Scale = 1:36.0

0-10-8

2-3-8

6-5-14

10-8-4

11-4-0

12-9-0

0-10-8

2-3-8

4-2-6

4-2-6

0-7-12

1-5-0

5x5 =

3x4 =

5-11.6

5-9.11

6.00

12

3x4

4

5

17

6

3

2

0-7-4

5x8 =

12

2x4 ||

11

10

9

2x4 =

7

8

2x4 ||

2x4 ||

4x8 =

13

3x4 ||

4x4 =

1-0-0

2-3-8

2-3-8

6-5-14

4-2-6

10-8-4

4-2-6

11-4-0

0-7-12

12-9-0

1-5-0

Plate Offsets (X,Y)--		[2:0-0-10,Edge], [3:0-4-8,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.14	3-12	>999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.30	3-12	>499		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.21	7	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							
										Weight: 67 lb	
										FT = 20%	

LUMBER-

TOP CHORD

2x6 SPF No.2 *Except*

5-6: 2x4 SPF No.2

BOT CHORD

2x4 SPF No.2

WEBS

2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.

BOT CHORD

Rigid ceiling directly applied.

REACTIONS.

(size) 7=Mechanical, 2=0-3-8

Max Horz 2=235(LC 11)

Max Uplift 7=-137(LC 12), 2=-124(LC 12)

Max Grav 7=690(LC 1), 2=775(LC 1)

FORCES.

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

TOP CHORD

3-15=-457/90, 3-4=-1155/194, 4-5=-382/110, 7-9=-671/233, 6-9=-655/206

BOT CHORD

3-12=-458/1077, 11-12=-458/1077

WEBS

6-11=-213/608, 4-11=-968/340

- NOTES-
- 1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 10-8-4, Exterior(2E) 10-8-4 to 12-7-4 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) Provide adequate drainage to prevent water ponding.

4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

5) Refer to girder(s) for truss to truss connections.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 7 and 124 lb uplift at joint 2.

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

8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

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



February 25,2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	C6	Half Hip	1	1		

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

8.430 s Feb 12 2021 MiTek Industries, Inc. ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-qawui2SQdIMSGno2OdBSNhxIWID_0YQ4C47X8zhb4m

0-10-8	2-3-8	8-8-4	11-4-0	12-9-0
0-10-8	2-3-8	6-4-12	2-7-12	1-5-0

6x8 =

3x4 =

Scale = 1:30.2

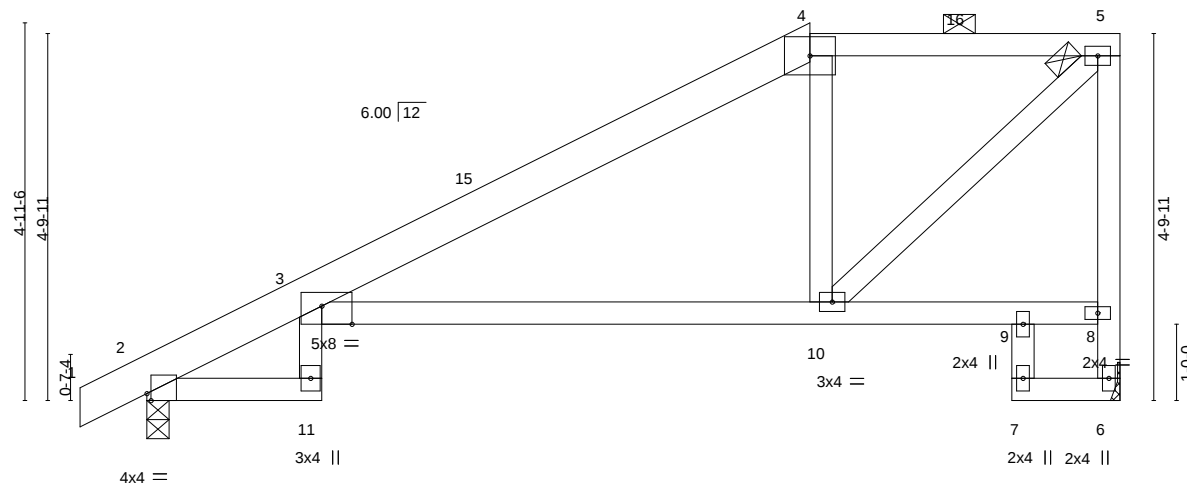


Plate Offsets (X,Y)--	[2:0-0-10,Edge], [3:0-4-12,Edge]
-----------------------	----------------------------------

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	-0.22	3-10	>693	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.50	3-10	>303	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.21	Horz(CT)	0.27	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 56 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
4-5: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and
2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=194(LC 11)
Max Uplift 6=115(LC 9), 2=130(LC 12)
Max Grav 6=690(LC 1), 2=775(LC 1)

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

TOP CHORD 3-13=-422/94, 3-4=-749/151, 4-5=-634/185, 6-8=-678/204, 5-8=-700/218
BOT CHORD 3-10=-286/652
WEBS 4-10=-401/223, 5-10=-294/868

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 8-8-4, Exterior(2E) 8-8-4 to 12-7-4 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 115 lb uplift at joint 6 and 130 lb uplift at joint 2.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job: 2630561

Truss: C7

Truss Type: Half Hip

Qty: 1

Ply: 1

Summit/39 Woods

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

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

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965886

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-ImUGwOT2QwtD4QM?c68Q?ae62v5WjTLZJsqg3bzbh4I

Job Reference (optional)

0-10-8 0-10-8

2-3-8 2-3-8

6-8-4 4-4-12

11-4-0 4-7-12

12-9-0 1-5-0

Scale = 1:25.9

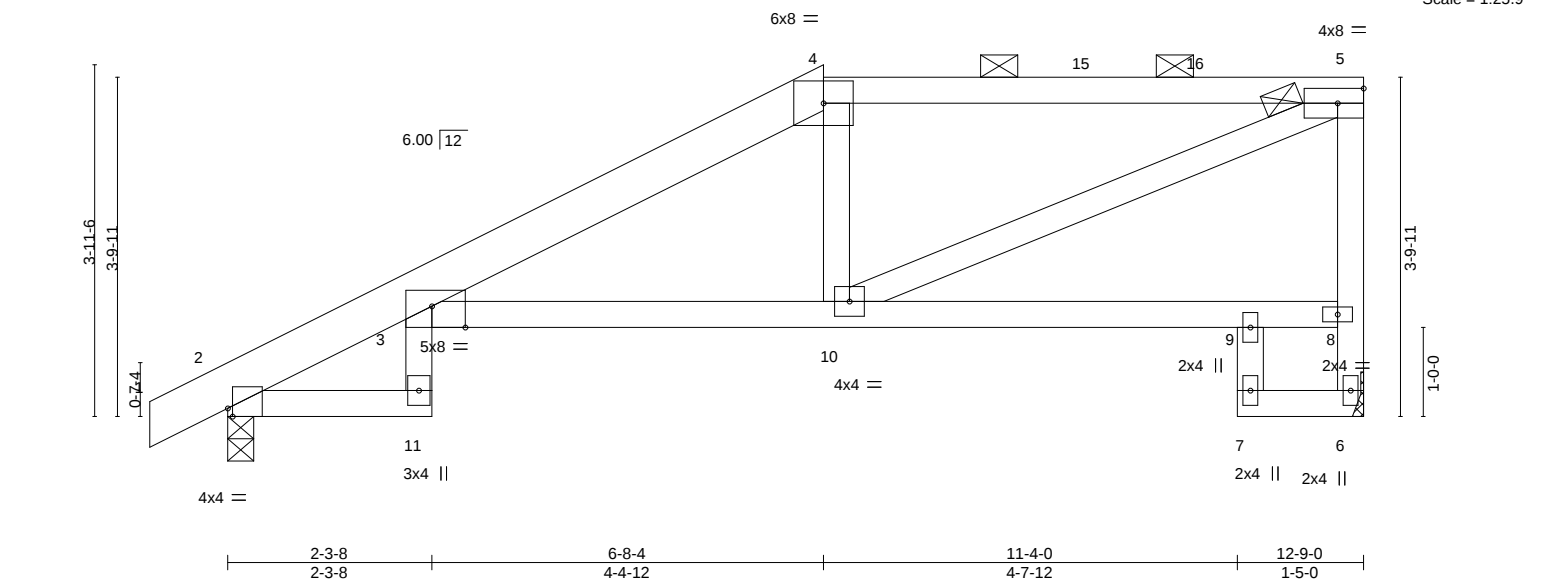


Plate Offsets (X, Y)--		[2:0-0-10,Edge], [3:0-4-8,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	-0.15	3-10	>999	240	MT20	197/144	
TCDL 20.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.33	3-10	>459	180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.21	6	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS								
										Weight: 53 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x6 SPF No.2 *Except* 4-5: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-2-9 max.): 4-5.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		

REACTIONS.	
(size)	6=Mechanical, 2=0-3-8
Max Horz	2=152(LC 11)
Max Uplift	6=-121(LC 9), 2=-133(LC 12)
Max Grav	6=690(LC 1), 2=775(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	3-13=-390/100, 3-4=-1087/235, 4-5=-985/278, 6-8=-667/175, 5-8=-639/193
BOT CHORD	3-10=-366/1001
WEBS	4-10=-267/163, 5-10=-323/984

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 6-8-4, Exterior(2R) 6-8-4 to 10-11-3, Interior(1) 10-11-3 to 12-7-4 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) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 6 and 133 lb uplift at joint 2.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25,2021

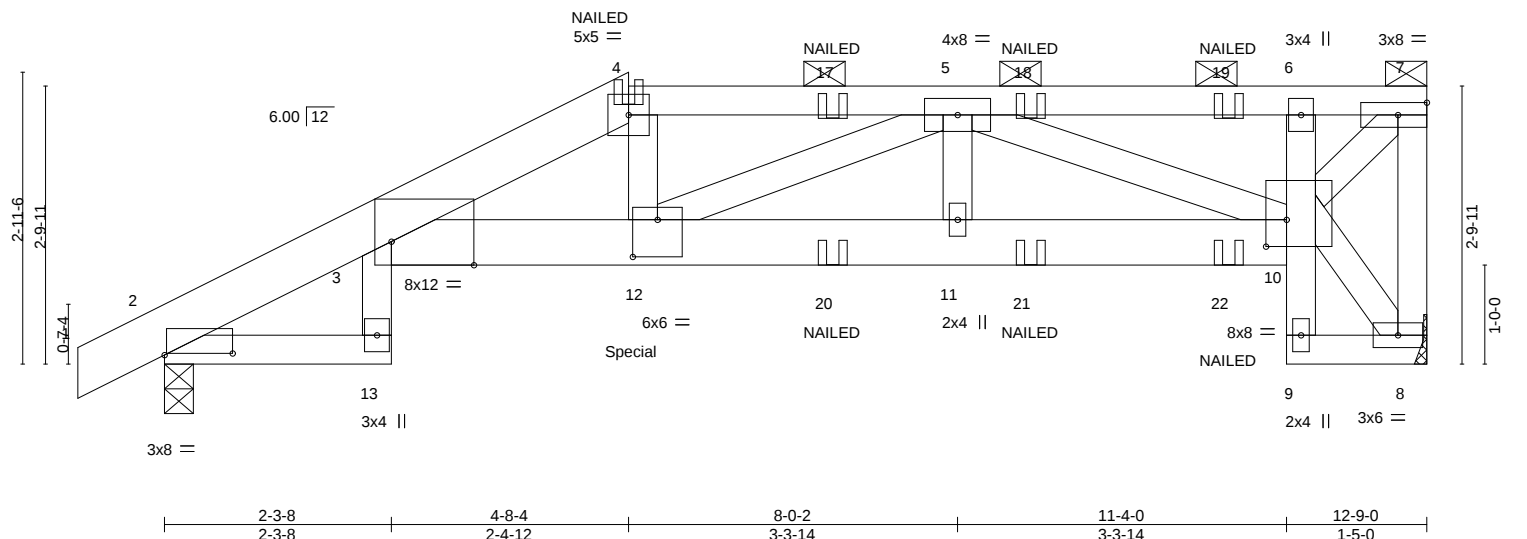


Plate Offsets (X,Y)-- [2:0-8-4,0-0-3], [3:0-10-0,Edge], [10:0-2-8,0-3-4], [12:0-3-0,0-4-8]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		in (loc) l/defl L/d		PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.12	3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.26	3-12	>579	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.43	Horz(CT)	0.21	8	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 64 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP 2400F 2.0E *Except*

4-7: 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2 *Except*

3-10: 2x6 SPF 2100F 1.8E

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals, and 2-0-0 oc purlins (3-2-6 max.): 4-7.

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

REACTIONS. (size) 8=Mechanical, 2=0-3-8
Max Horz 2=110(LC 7)
Max Uplift 8=309(LC 5), 2=299(LC 8)
Max Grav 8=1166(LC 1), 2=1205(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-15=-596/145, 3-4=-3064/834, 4-5=-2948/830, 5-6=-992/266, 6-7=-870/231, 7-8=-1115/315
BOT CHORD 3-12=-828/2865, 11-12=-742/2587, 10-11=-742/2587, 6-10=-316/122
WEBS 4-12=-149/620, 5-12=-141/396, 5-10=-1726/482, 7-10=-406/1399

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Refer to girder(s) for truss to truss connections.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 309 lb uplift at joint 8 and 299 lb uplift at joint 2.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 425 lb down and 174 lb up at 4-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-90, 4-7=-90, 13-14=-20, 3-10=-20, 8-9=-20

Continued on page 2



February 25, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods
2630561	C8	Half Hip Girder	1	1	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965887

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-iL9OYPVxirFnxu5aHEh7dDseg77jwn60?q2Lgwz4i

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

J4965887

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 4=-67(B) 12=-425(B) 17=-67(B) 18=-67(B) 19=-67(B) 20=-71(B) 21=-71(B) 22=-71(B)

03/08/2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	CJ1	Diagonal Hip Girder	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. 14965888			
			Job Reference (optional)			
			ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-AXjnmIWZT9NeY2fmyrDM9QOxiXTUfJ59EUouCMzhb4h			
			6-6-1 3-3-15			
			5x5 Scale = 1:17.9			

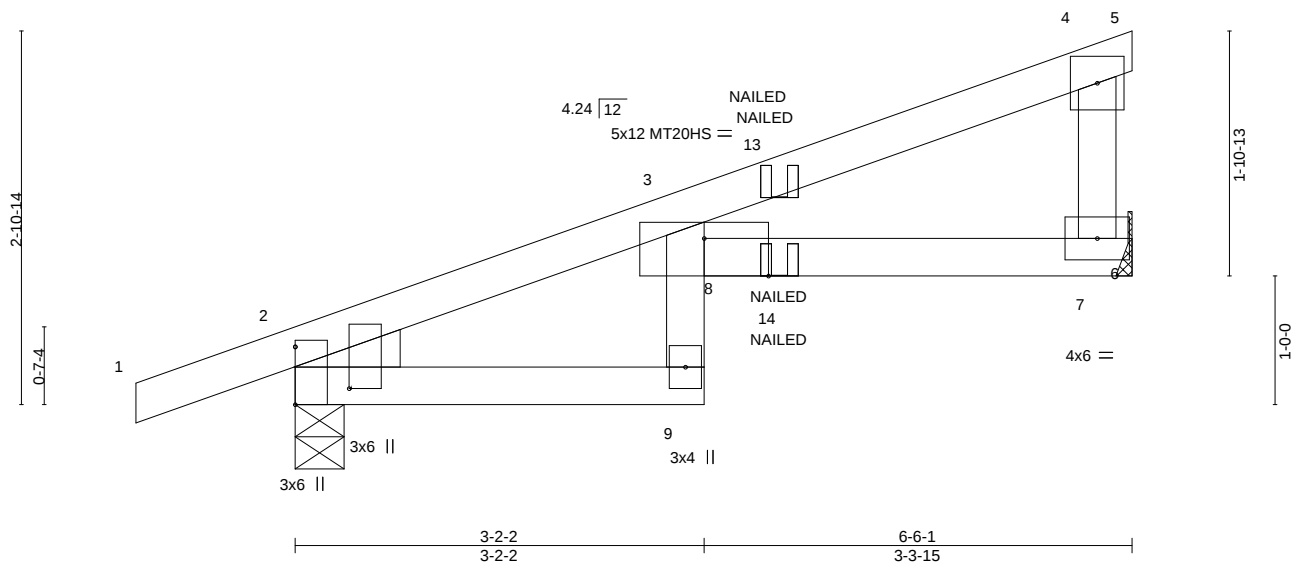


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0], [3:0-6-0,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.06	7-8	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.12	7-8	>622
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.05	7	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR				
				PLATES			
				MT20			
				MT20HS			
				Weight: 21 lb			FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
 Max Horz 2=99(LC 5)
 Max Uplift 7=-111(LC 8), 2=-130(LC 4)
 Max Grav 7=382(LC 1), 2=487(LC 1)

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

TOP CHORD 2-3=-486/111, 3-4=-279/73
 BOT CHORD 2-9=-129/401, 7-8=-76/263

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 111 lb uplift at joint 7 and 130 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=-90, 4-5=-40, 9-10=-20, 6-8=-20
 Concentrated Loads (lb)
 Vert: 14=-55(F=-28, B=-28)



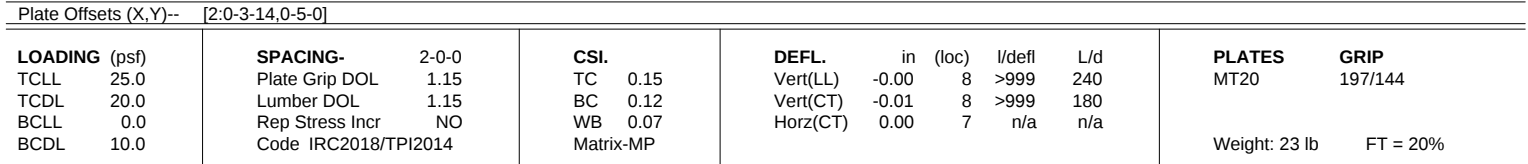
February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017



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

TOP CHORD	Structural wood sheathing directly applied or 5-9-3 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 7=Mechanical, 2=0-4-9
 Max Horz 2=108(LC 24)
 Max Uplift 7=81(LC 8), 2=-116(LC 4)
 Max Grav 7=314(LC 1), 2=432(LC 1)

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

TOP CHORD	2-3=-382/80
BOT CHORD	2-8=-89/334, 7-8=-89/334
WEBS	3-7=-375/120

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 7 and 116 lb uplift at joint 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 8=-14(F=-7, B=-7)



February 25, 2021



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED WELTER REFERENCE PAGE MH-1413 (Rev. 3/25/2020) BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for the building framing component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2671 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2630561

Truss

CJ3

Truss Type

Diagonal Hip Girder

Qty

2

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, MO 64086-4301

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-fkH9z5WBETVVABEYpfkbiex7UwvkOjPIS8XRkozhb4g

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

1-2-14

1-2-14

4-3-9

4-3-9

8-7-2

4-3-9

2x4

4

5

3-7-12

0-7-4

NAILED

NAILED

12

3x4

3

13

12

14

8

2x4

15

7

3x6

6

4-3-9

4-3-9

8-7-2

4-3-9

Plate Offsets (X,Y)--

[2:0-3-14,0-5-0]

LOADING (psf)

TCLL 25.0

TCDL 20.0

BCLL 0.0

BCDL 10.0

SPACING-

2-0-0

Plate Grip DOL 1.15

Lumber DOL 1.15

Rep Stress Incr NO

Code IRC2018/TPI2014

CSI.

TC 0.35

BC 0.33

WB 0.25

Matrix-MP

DEFL.

in (loc)

l/defl

L/d

Vert(LL) -0.01 7-8 >999 240

Vert(CT) -0.04 7-8 >999 180

Horz(CT) 0.01 7 n/a n/a

PLATES

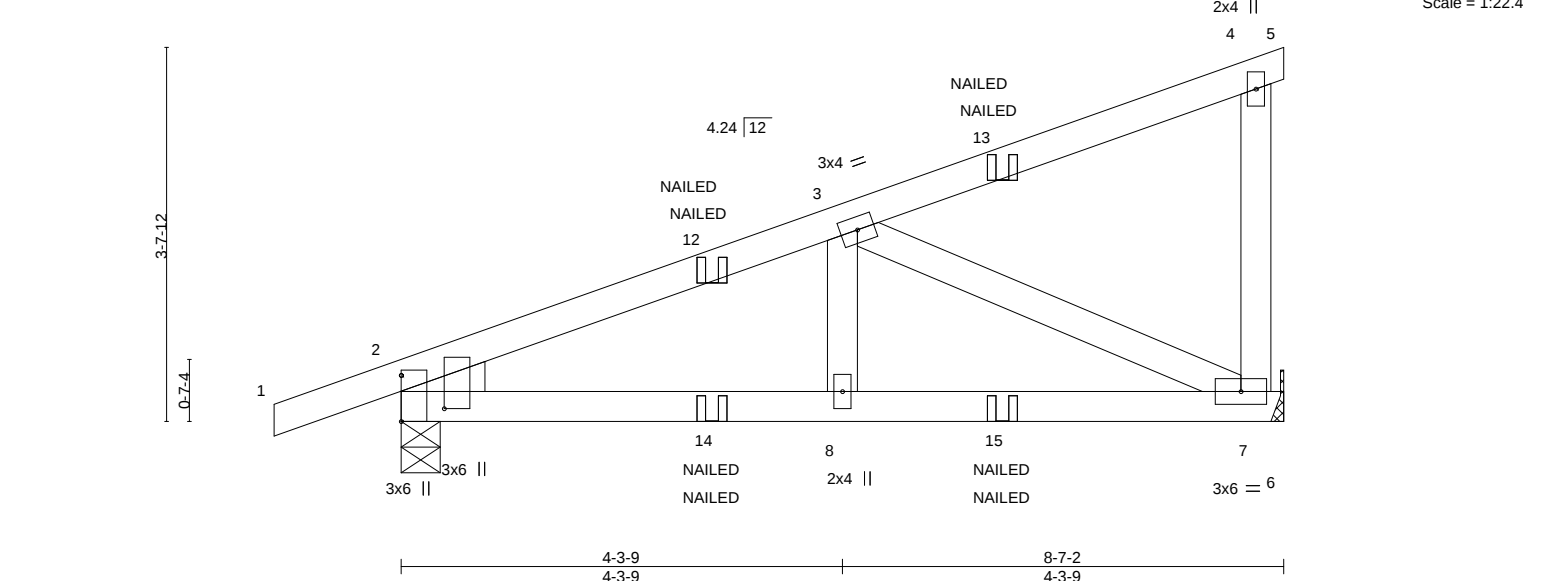
MT20

GRIP

197/144

Weight: 33 lb

FT = 20%



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.35	Vert(LL)	-0.01	7-8	>999	240	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.04	7-8	>999	180	
BCLL 0.0	Rep Stress Incr	NO	WB 0.25	Horz(CT)	0.01	7	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
								Weight: 33 lb	FT = 20%

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

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

REACTIONS. (size) 7=Mechanical, 2=0-4-9
Max Horz 2=153(LC 7)
Max Uplift 7=-149(LC 8), 2=-158(LC 4)
Max Grav 7=536(LC 1), 2=612(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-760/172
BOT CHORD 2-8=-203/674, 7-8=-203/674
WEBS 3-7=-740/236

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 149 lb uplift at joint 7 and 158 lb uplift at joint 2.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 6-9=-20
Concentrated Loads (lb)
Vert: 13=-41(F=-16, B=-24) 14=-10(F=-3, B=-7) 15=-53(F=-20, B=-32)



February 25, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	Side Ridge/MO
2630561	CJ4	Diagonal Hip Girder	2	1		
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,	8.430 s Feb 12 2021 MiTek Industries, Inc. 14965891			
			ID:VPVqvFnP0P0b1j2tZrOqezdKbx-7wrXARXp?meMoLp9zNFqErUL7Kle7C7ShoH?GEzhb4f			
			Job Reference (optional)			
			Lee's Summit, MO 64086			
			03/08/2021			
			Scale = 1:19.4			

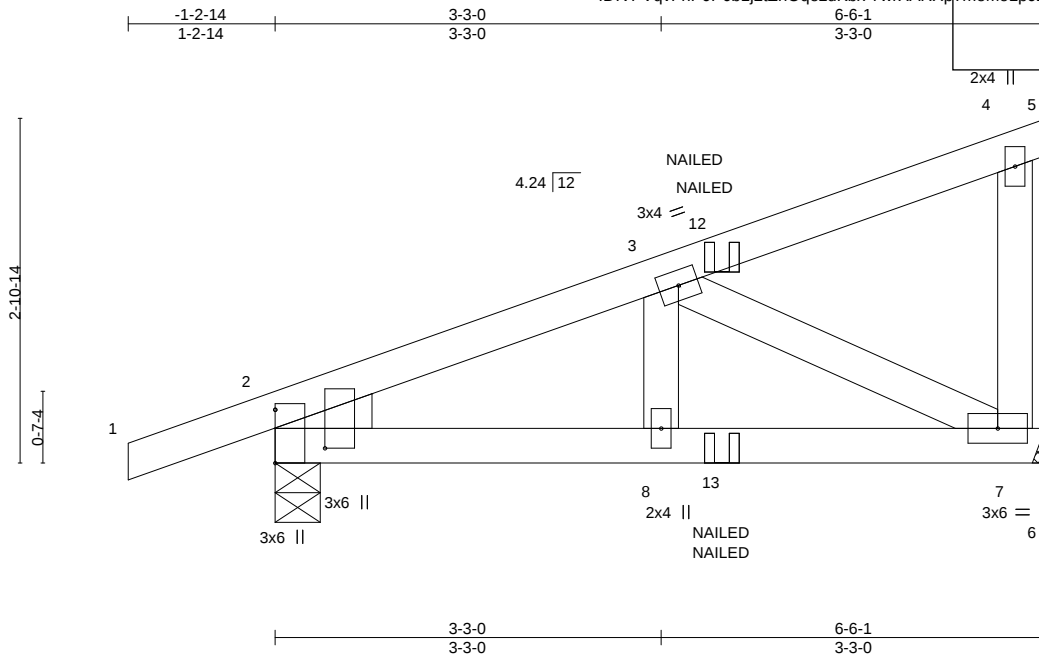


Plate Offsets (X,Y)--	[2:0-3-14,0-5-0]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01 8	>999 240
TCDL 20.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.01 7-8	>999 180
BCLL 0.0	Rep Stress Incr	NO	WB 0.09	Horz(CT)	0.00 7	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP			
				PLATES	GRIP	
				MT20	197/144	
				Weight: 25 lb	FT = 20%	

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9
 Max Horz 2=119(LC 7)
 Max Uplift 7=94(LC 8), 2=122(LC 4)
 Max Grav 7=360(LC 1), 2=473(LC 1)

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

TOP CHORD 2-3=-464/96
 BOT CHORD 2-8=-123/407, 7-8=-123/407
 WEBS 3-7=-453/142

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 7 and 122 lb uplift at joint 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-4=-90, 4-5=-40, 6-9=-20
 Concentrated Loads (lb)
 Vert: 13=-19(F=-10, B=-10)



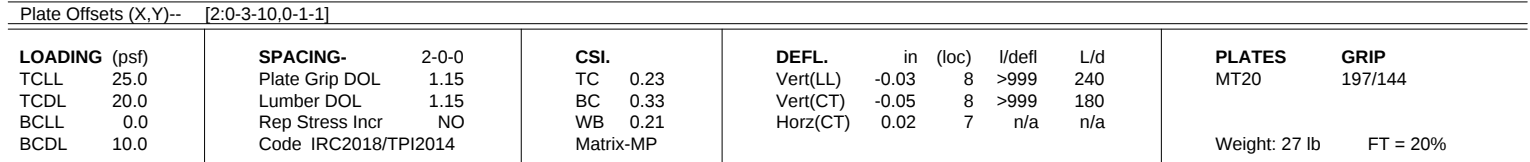
February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017



BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 4-9-11 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 9-6-4 oc bracing.

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

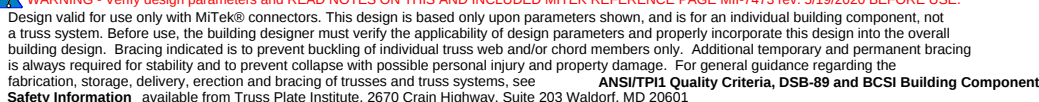
TOP CHORD	2-3=-1414/425
BOT CHORD	2-8=-435/1317, 7-8=-388/1177
WEBS	3-8=-195/594, 3-7=-1235/425

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 162 lb uplift at joint 2 and 158 lb uplift at joint 7.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-90, 4-5=-40, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 8=-238(F=-119, B=-119)

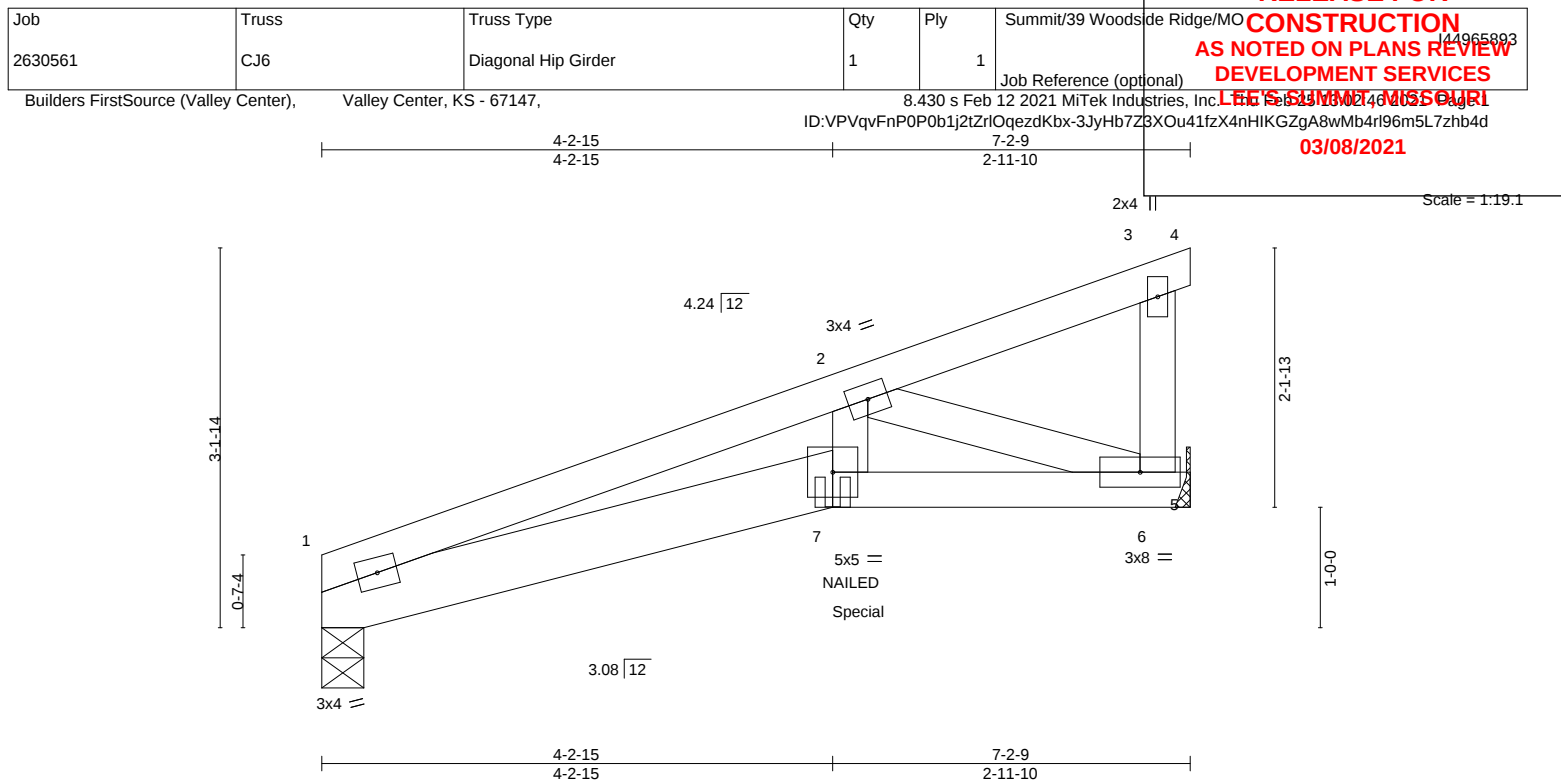


February 25, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

03/08/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	-0.03	7	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.05	7	>999		
BCLL 0.0	Rep Stress Incr	NO	WB 0.21	Horz(CT)	0.02	6	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 25 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 1-7: 2x6 SPF No.2
 WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-8-14 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 9-6-2 oc bracing.

REACTIONS.

(size) 1=0-4-3, 6=Mechanical
 Max Horz 1=101(LC 5)
 Max Uplift 1=-105(LC 4), 6=-163(LC 8)
 Max Grav 1=479(LC 1), 6=551(LC 1)

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

TOP CHORD 1-2=-1437/426
 BOT CHORD 1-7=-436/1337, 6-7=-388/1194
 WEBS 2-7=-199/616, 2-6=-1259/428

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 1 and 163 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-90, 3-4=-40, 7-8=-20, 5-7=-20
 Concentrated Loads (lb)
 Vert: 7=-250(F=-119, B=-131)



February 25, 2021

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 Chesterfield, MO 63017

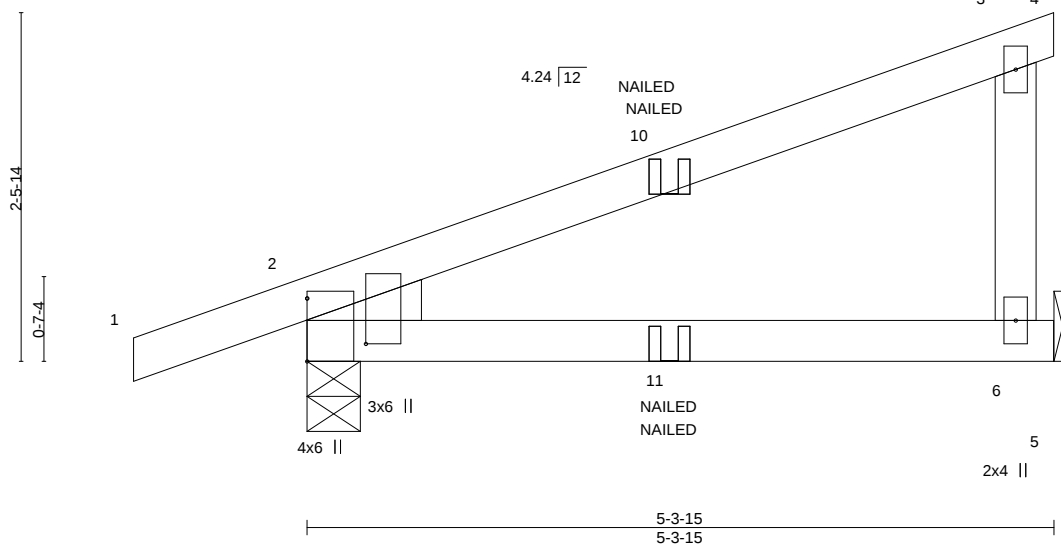


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.04	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.09	6-9	>693	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 17 lb	FT = 20%

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

TOP CHORD	Structural wood sheathing directly applied or 5-3-15 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

(size) 6=Mechanical, 2=0-4-9
Max Horz 2=101(LC 7)
Max Uplift 6=-74(LC 8), 2=-111(LC 4)
Max Grav 6=287(LC 1), 2=408(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 6 and 111 lb uplift at joint 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-40, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-11(F=-5, B=-5)



February 25, 2021



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-743 (rev. 5/19/2020) BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI 1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2607 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

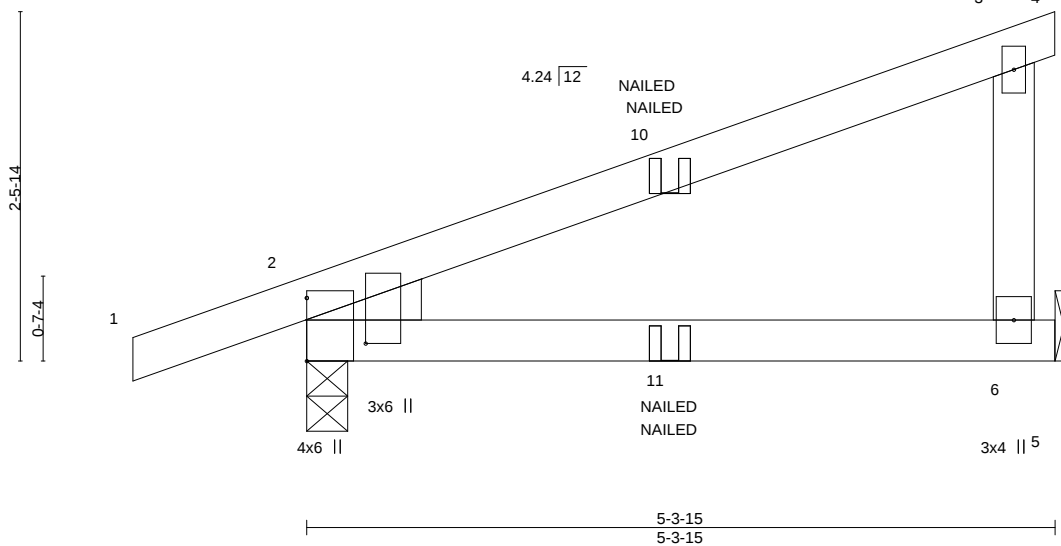


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]														
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	-0.04	6-9	>999	240	MT20	197/144		
TCDL	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.09	6-9	>703	180				
BCLL	0.0	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.02	2	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 17 lb	FT = 20%		

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

TOP CHORD	Structural wood sheathing directly applied or 5-3-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

(size) 2=0-3-8, 6=Mechanical
Max Horz 6=100(LC 4)
Max Uplift 2=-102(LC 4), 6=-82(LC 8)
Max Grav 2=407(LC 1), 6=287(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 2 and 82 lb uplift at joint 6.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-40, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-11(F=-5, B=-5)



February 25, 2021



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MH/473 Rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2602 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2630561

Truss

CJ9

Truss Type

Diagonal Hip Girder

Qty

2

Ply

1

Summit/39 Woods

side Ridge/MO

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

Lee's Summit, Missouri

ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-?h420paK3?8oGz7wCCJmPheysxbh3yR2cQFCP0zhb4b

03/08/2021

Scale = 1:24.4

Plate Offsets (X,Y)--

[2:0-3-14,0-5-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.43	Vert(LL)	-0.02	7-8	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.41	Vert(CT)	-0.04	7-8	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS							
									Weight: 35 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

BRACING-

TOP CHORD

Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.

BOT CHORD

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

REACTIONS.

(size) 7=Mechanical, 2=0-4-9

Max Horz 2=147(LC 7)

Max Uplift 7=-179(LC 8), 2=-174(LC 4)

Max Grav 7=641(LC 1), 2=676(LC 1)

FORCES.

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

TOP CHORD 2-3=-897/212

BOT CHORD 2-8=-253/798, 7-8=-253/798

WEBS 3-7=-825/270

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) Refer to girder(s) for truss to truss connections.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 7 and 174 lb uplift at joint 2.

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

6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.

7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 87 lb down and 89 lb up at 6-7-2, and 87 lb down and 89 lb up at 6-7-2 on top chord. The design/selection of such connection device(s) is the responsibility of others.

8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-90, 4-5=-40, 6-9=-20

Concentrated Loads (lb)

Vert: 13=-93(F=-46, B=-46) 15=-19(F=-10, B=-10) 16=-80(F=-40, B=-40)

STATE OF MISSOURI

ANDREW THOMAS JOHNSON

NUMBER

PE-2017018993

PROFESSIONAL ENGINEER

February 25, 2021

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

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

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

MiTek

16023 Swingley Ridge Rd

Chesterfield, MO 63017

Job

2630561

Truss

D1

Truss Type

Half Hip Girder

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0b1j2tZrIQeqzdKbx-x4CoRUcabCOWWGHJdMEU6kl?IH0XrqK3jkJUuzhb4Z

11-2-8
3-4-14

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Scale = 1:23.5

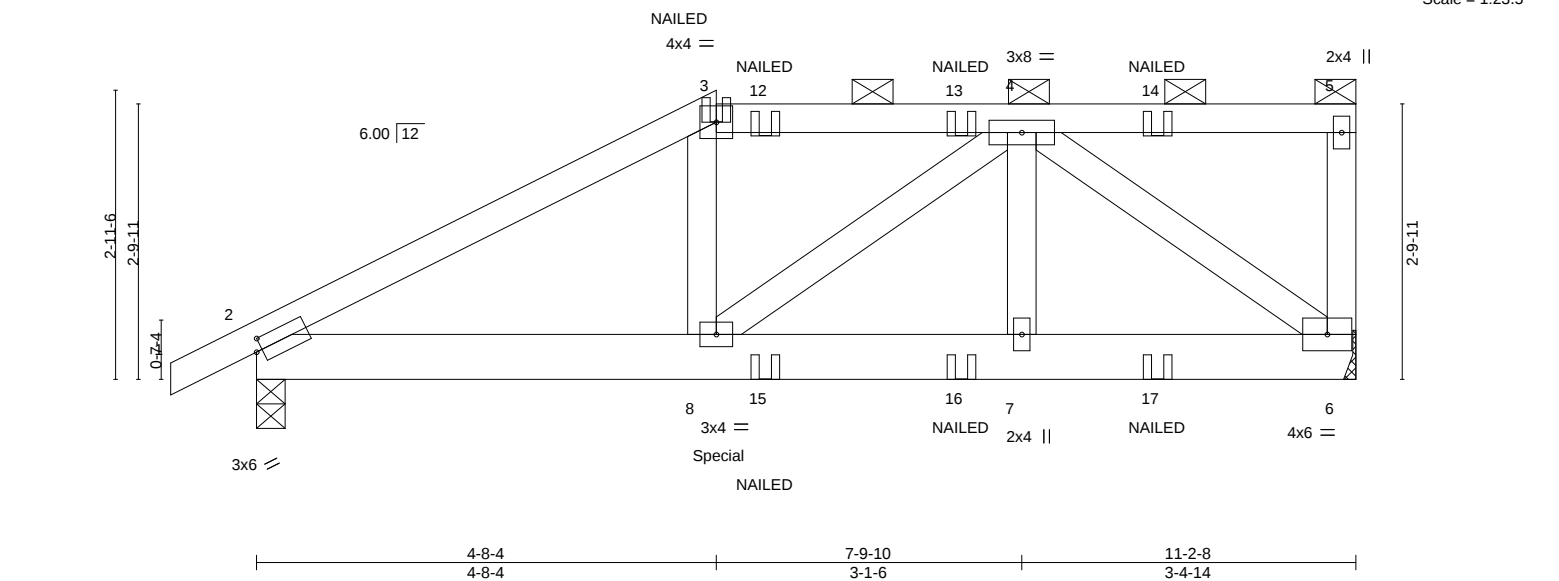


Plate Offsets (X,Y)--		[2:0-0-12,0-1-8]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.39	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.39	Vert(LL) -0.02 8 >999 240
BCLL 0.0	Rep Stress Incr NO	WB 0.40	Vert(CT) -0.05 7-8 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.01 6 n/a n/a
		PLATES GRIP	
		MT20 197/144	
		Weight: 50 lb FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 4-2-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-5 max.): 3-5.
BOT CHORD	2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		

REACTIONS.	
(size)	2=0-3-8, 6=Mechanical
Max Horz	2=106(LC 28)
Max Uplift	2=-269(LC 8), 6=-286(LC 5)
Max Grav	2=1109(LC 1), 6=1066(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-1702/439, 3-4=-1434/423
BOT CHORD	2-8=-417/1445, 7-8=-346/1169, 6-7=-346/1169
WEBS	3-8=-34/294, 4-8=-124/326, 4-6=-1422/395

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 269 lb uplift at joint 2 and 286 lb uplift at joint 6.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
 - "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 381 lb down and 144 lb up at 4-8-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard	
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15	
Uniform Loads (plf)	
Vert: 1-3=-90, 3-5=-90, 6-9=-20	
Concentrated Loads (lb)	
Vert: 3=-87(F) 8=-381(F) 12=-87(F) 13=-87(F) 14=-87(F) 15=-49(F) 16=-49(F) 17=-49(F)	



February 25, 2021

Job

2630561

Truss

D2

Truss Type

Half Hip

Qty

1

Ply

1

Summit/39 Woodside Ridge/MO

8.430 s Feb 12 2021 MiTek Industries, Inc.

Job Reference (optional)

LEE'S SUMMIT, MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

Lee's Summit, Missouri

ID:VPVqFnP0P0b1j2tZrOqezdKbx-x4CoRUcabrOWWGHJdMEU6kH9IH0XsGK3jkJUuzhb4Z

03/08/2021

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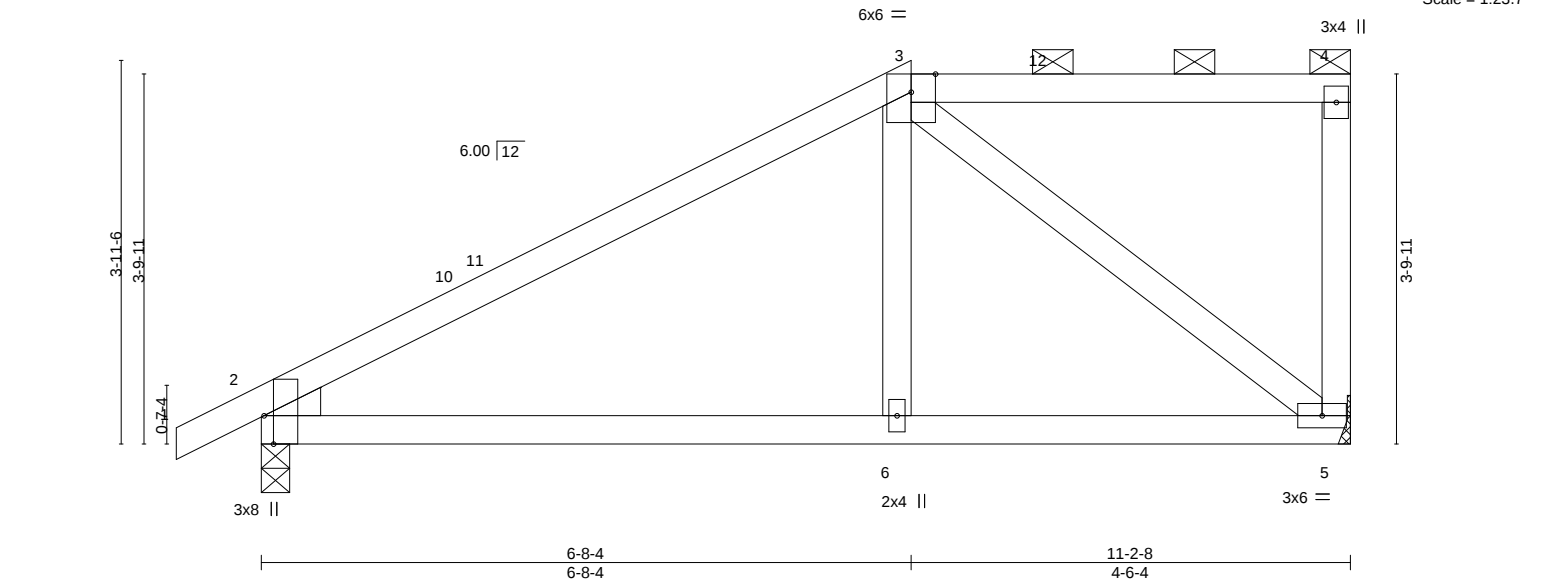


Plate Offsets (X, Y)--		[2:0-3-8, Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51
TCDL 20.0	Lumber DOL	1.15	BC 0.42
BCLL 0.0	Rep Stress Incr	YES	WB 0.37
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.06 6-9 >999 240
			Vert(CT) -0.11 6-9 >999 180
			Horz(CT) 0.02 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 42 lb FT = 20%

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

REACTIONS.	(size) 2=0-3-8, 5=Mechanical
	Max Horz 2=150(LC 11)
	Max Uplift 2=-107(LC 12), 5=-104(LC 9)
	Max Grav 2=690(LC 1), 5=605(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-717/174
BOT CHORD	2-6=-253/542, 5-6=-254/535
WEBS	3-6=0/263, 3-5=-668/273

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-4, Exterior(2E) 6-8-4 to 11-0-12 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
 - Provide adequate drainage to prevent water ponding.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 107 lb uplift at joint 2 and 104 lb uplift at joint 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

03/08/2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO
2630561	D3	Half Hip	1	1	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965899

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-QGmAeqdCMwWN7QsVlT1KGvP9d3GLKUINTs0Kzhb4Y

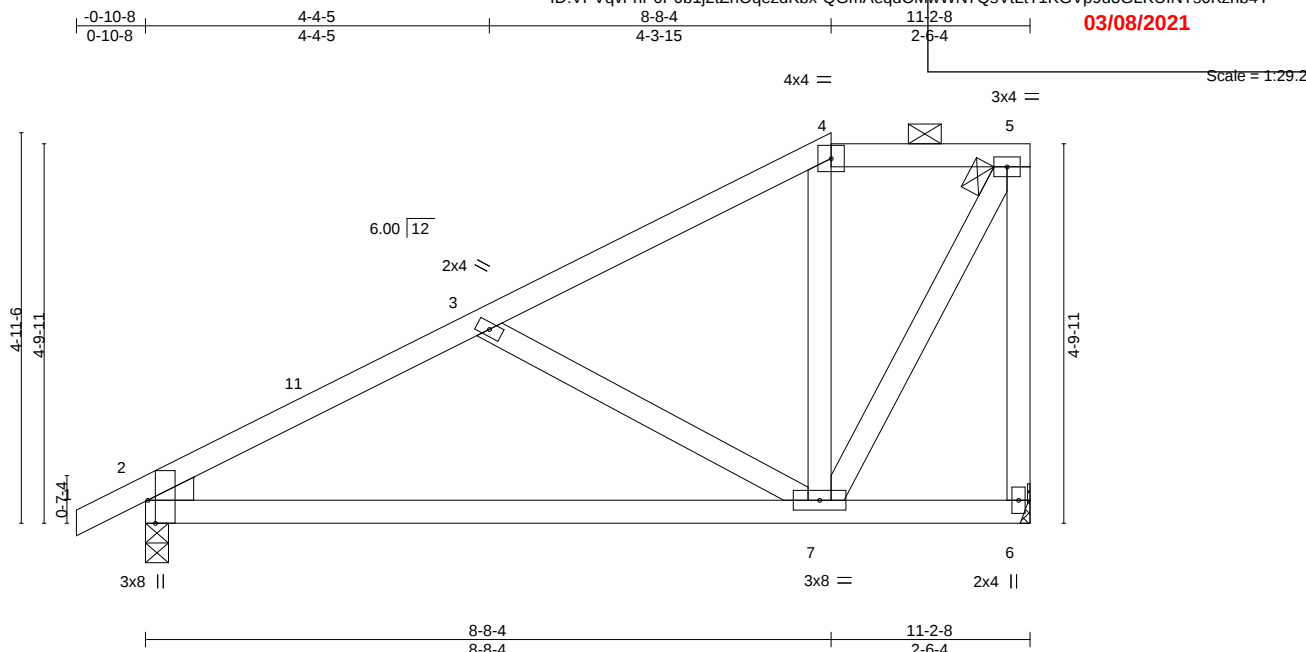


Plate Offsets (X, Y)--	[2:0-3-8, Edge]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	-0.09 7-10	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.18 7-10	>748	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.19	Horz(CT)	0.01 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 49 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
 Max Horz 2=192(LC 11)
 Max Uplift 6=97(LC 9), 2=110(LC 12)
 Max Grav 6=605(LC 1), 2=690(LC 1)

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

TOP CHORD 2-3=-810/201, 3-4=-421/124, 4-5=-300/143, 5-6=-613/230
 BOT CHORD 2-7=-362/689
 WEBS 3-7=-454/224, 5-7=-241/607

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-8-4, Exterior(2E) 8-8-4 to 11-0-12 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 6 and 110 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2630561	Truss D4	Truss Type Half Hip	Qty 2	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc.		RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/08/2021	
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-uTKZsAdq7EeDlaQhR2OIZXpeSZ_Z?kddX1DQYnzhb4X			Job Reference (optional)		11-2-8 0-6-4 Scale = 1:33.9	

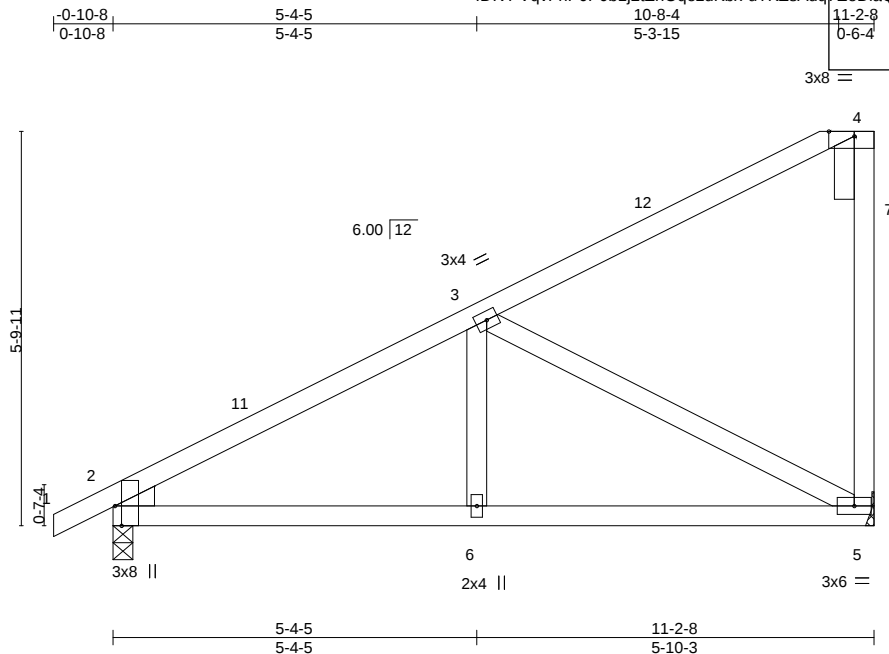


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-4-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40
TCDL 20.0	Lumber DOL	1.15	BC 0.28
BCLL 0.0	Rep Stress Incr	YES	WB 0.51
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.03 5-6 >999 240
			Vert(CT) -0.06 5-6 >999 180
			Horz(CT) 0.01 5 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 46 lb FT = 20%

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

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

REACTIONS. (size) 2=0-3-8, 5=Mechanical
 Max Horz 2=247(LC 11)
 Max Uplift 2=-102(LC 12), 5=-144(LC 12)
 Max Grav 2=690(LC 1), 5=605(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-819/165
 BOT CHORD 2-6=-284/662, 5-6=-284/662
 WEBS 3-5=-714/233

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 2 and 144 lb uplift at joint 5.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2630561	Truss D5	Truss Type Jack-Closed	Qty 7	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri			
ID:VPVqvFnP0P0b1j2tZrOgezdKbx-Mfux3WeSuXm4Nk?t_mvX6LpGyK_kBSnmhyz5Dzhh4W			Job Reference (optional)			
			RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/08/2021			

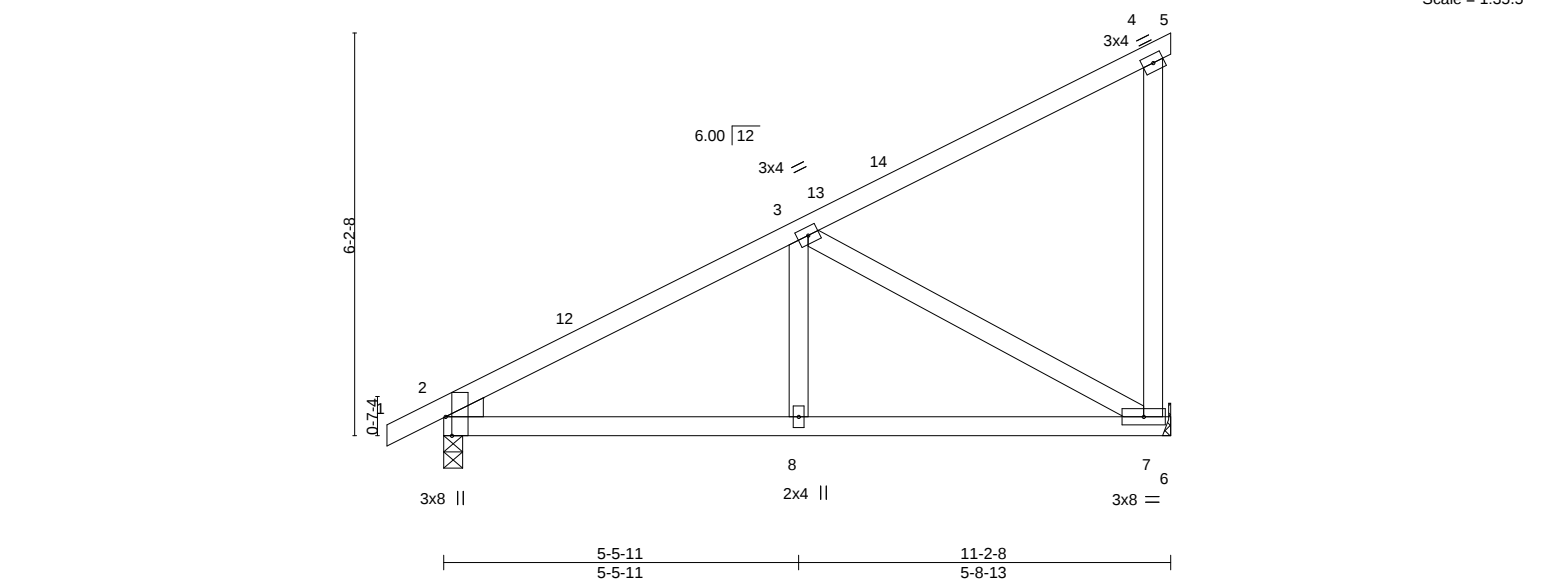


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.39
TCDL 20.0	Lumber DOL	1.15	BC 0.27
BCLL 0.0	Rep Stress Incr	YES	WB 0.47
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.02 7-8 >999 240
			Vert(CT) -0.04 7-8 >999 180
			Horz(CT) 0.01 7 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 45 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
WEDGE	
Left: 2x4 SPF No.2	

REACTIONS.	(size) 2=0-3-8, 7=Mechanical
	Max Horz 2=247(LC 11)
	Max Uplift 2=-91(LC 12), 7=-91(LC 12)
	Max Grav 2=683(LC 1), 7=615(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-795/162
BOT CHORD	2-8=-291/637, 7-8=-291/637
WEBS	3-7=-702/245

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-2-8 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
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 91 lb uplift at joint 2 and 91 lb uplift at joint 7.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job

2630561

Truss

E1

Truss Type

Roof Special

Qty

2

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. LEE'S SUMMIT, MISSOURI

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-qrRjHsf5frux_ua4YTQAeyu1rMf0TiPw_LiXdfzhb4V

11-2-8

2-9-0

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

0-10-8

3-0-8

5-9-0

8-5-8

11-2-8

0-10-8

3-0-8

2-8-8

2-8-8

2-9-0

4x6 ||

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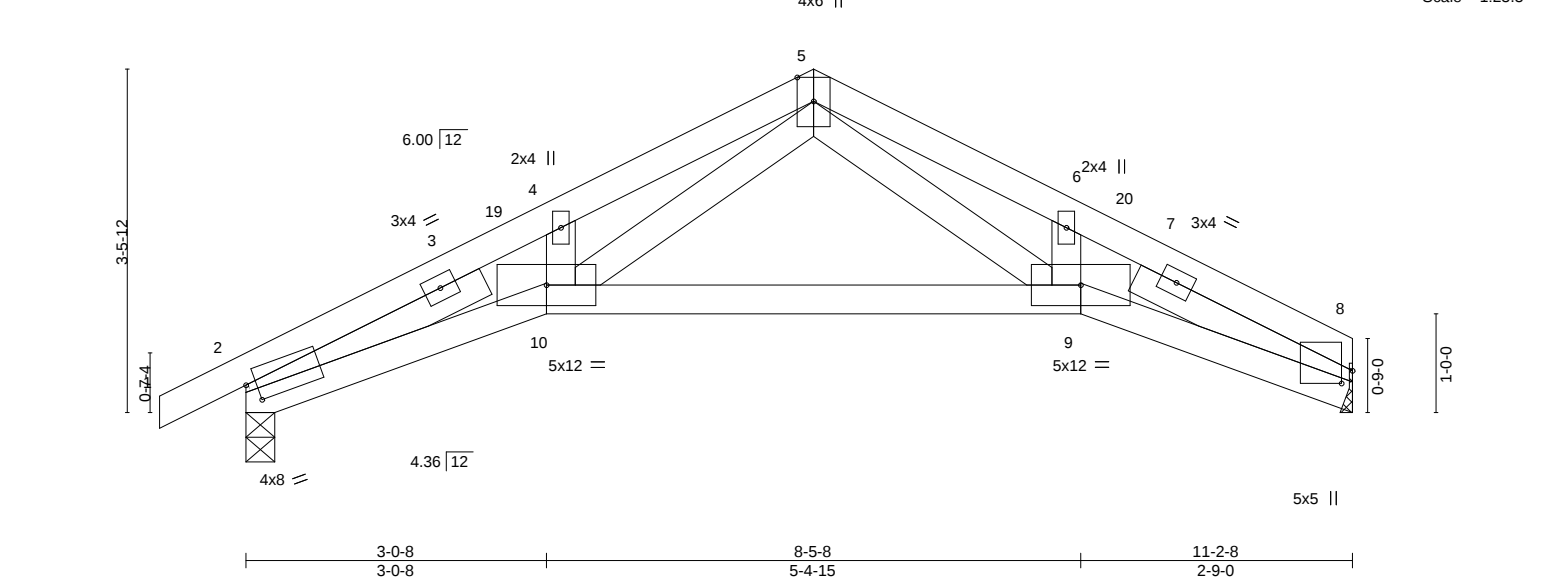


Plate Offsets (X, Y)--		[2:0-1-4,0-2-5], [8:0-1-9,0-1-5]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144	
TCDL 20.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.15	9-10	>886	180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.08	8	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS								
									Weight: 43 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 -t 2-8-1, Right 2x4 SPF No.2 -t 2-5-5		

REACTIONS.	
(size)	8=Mechanical, 2=0-3-8
Max Horz	2=69(LC 12)
Max Uplift	8=-80(LC 13), 2=-103(LC 12)
Max Grav	8=613(LC 1), 2=698(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-1785/575, 4-5=-1741/650, 5-6=-1645/588, 6-8=-1727/528
BOT CHORD	2-10=-492/1656, 9-10=-200/801, 8-9=-422/1566
WEBS	5-10=-363/959, 5-9=-311/849

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Refer to girder(s) for truss to truss connections.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 8 and 103 lb uplift at joint 2.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/08/2021
2630561	E2	Roof Special	1	1	8.430 s Feb 12 2021 MiTek Industries, Inc.	J44965903
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,	Job Reference (optional)			
0-10-8		3-0-8	5-9-0	8-5-8	11-6-0	03/08/2021
0-10-8		3-0-8	2-8-8	2-8-8	3-0-8	
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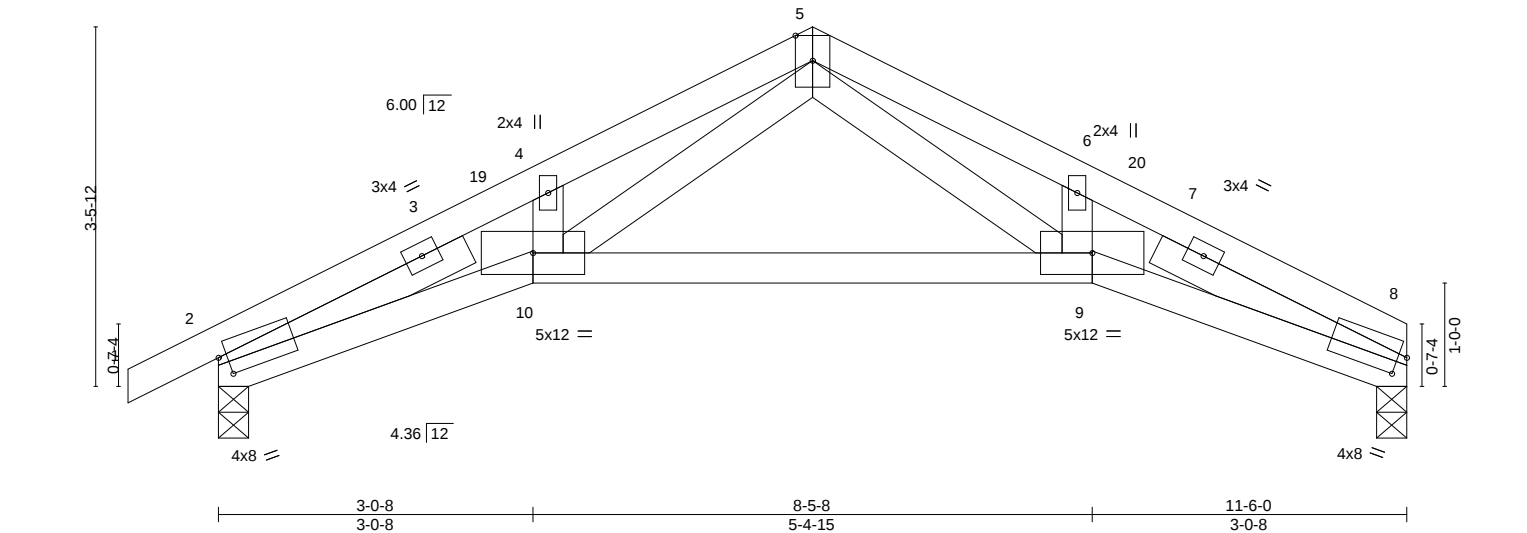


Plate Offsets (X,Y)--		[2:0-1-0,0-2-5], [8:0-1-0,0-2-5]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	-0.06	9-10	>999	240	MT20	197/144	
TCDL 20.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.17	9-10	>820	180			
BCLL 0.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.09	8	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS								
									Weight: 44 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
SLIDER	Left 2x4 SPF No.2 -t 2-8-1, Right 2x4 SPF No.2 -t 2-8-1		

REACTIONS.	
(size)	8=0-3-8, 2=0-3-8
Max Horz	2=66(LC 16)
Max Uplift	8=-84(LC 13), 2=-105(LC 12)
Max Grav	8=630(LC 1), 2=714(LC 1)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-1848/575, 4-5=-1798/649, 5-6=-1822/625, 6-8=-1876/567
BOT CHORD	2-10=-483/1712, 9-10=-198/844, 8-9=-456/1741
WEBS	5-9=-347/998, 5-10=-353/970

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 1-10-3, Interior(1) 1-10-3 to 5-9-0, Exterior(2R) 5-9-0 to 8-9-0, Interior(1) 8-9-0 to 11-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Bearing at joint(s) 8, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 8 and 105 lb uplift at joint 2.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	E3	Hip Girder	1	1		

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

8.430 s Feb 12 2021 MiTek Industries, Inc. 165 S SUMMIT, MISSOURI

ID:VPVqVFnP0P0b1j2tZr1OgezdkBx-mEZ3iYhLAS8fEBkSfuTekNzFKACaxaTDSfBdhYzhh4T

0-10-8	3-0-8	5-2-4	6-3-12	8-5-8	11-6-0
0-10-8	3-0-8	2-1-12	1-1-8	2-1-12	3-0-8

Scale = 1:20.5

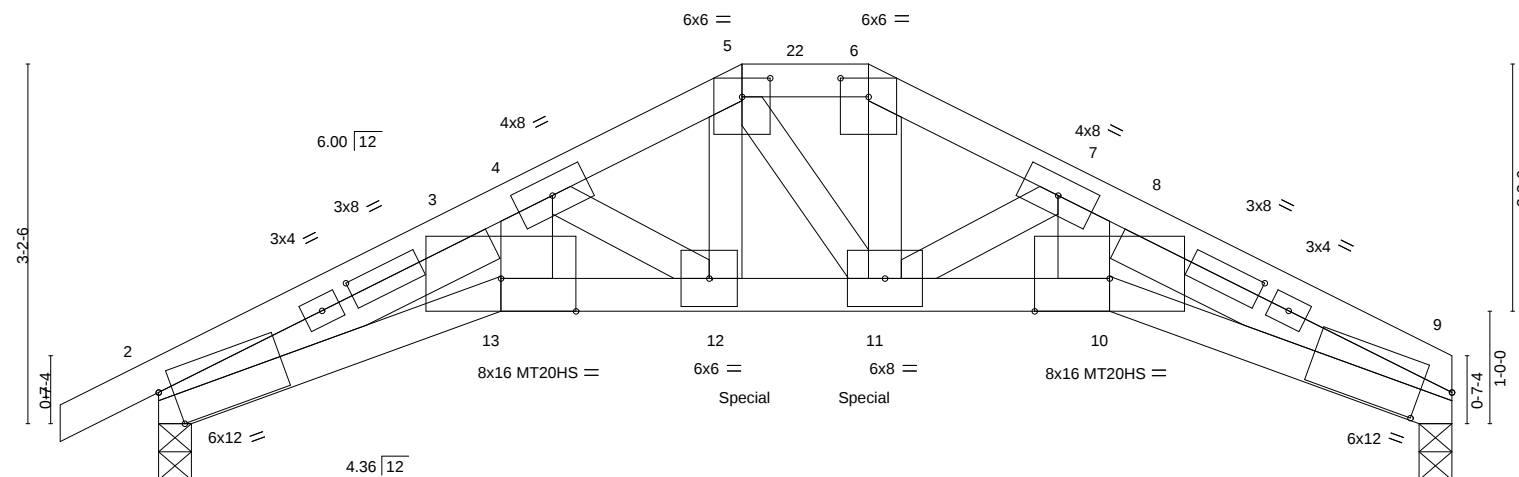


Plate Offsets (X,Y)--	[2:0-1-8,Edge], [2:1-11-1,0-1-8], [5:0-3-0,0-2-0], [6:0-3-0,0-2-0], [9:1-11-1,0-1-8], [9:0-3-4,0-4-1]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.72	Vert(LL)	-0.12	12	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.26	12	>540	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	NO	WB 0.33	Horz(CT)	0.20	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 49 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF 1650F 1.5E
 WEBS 2x4 SPF No.2 *Except*
 4-13,7-10: 2x6 SPF No.2
 SLIDER Left 2x4 SPF No.2 -t 3-3-6, Right 2x4 SPF No.2 -t 3-3-6

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-1-13 oc purlins, except
 2-0-0 oc purlins (3-3-6 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 6-7-3 oc bracing.

REACTIONS.

(size) 9=0-3-8, 2=0-3-8
 Max Horz 2=61(LC 8)
 Max Uplift 9=340(LC 9), 2=360(LC 8)
 Max Grav 9=1405(LC 1), 2=1487(LC 1)

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

TOP CHORD 2-4=-5019/1323, 4-5=-3458/924, 5-6=-3016/806, 6-7=-3488/916, 7-9=-5057/1268
 BOT CHORD 2-13=-1198/4588, 12-13=-1048/4004, 11-12=-758/2985, 10-11=-959/4026,
 9-10=-1100/4625
 WEBS 4-13=-367/1466, 4-12=-1039/295, 5-12=-380/1313, 6-11=-371/1330, 7-11=-1027/268,
 7-10=-339/1488

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 9, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 340 lb uplift at joint 9 and 360 lb uplift at joint 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 764 lb down and 280 lb up at 5-2-4, and 784 lb down and 285 lb up at 6-3-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard



February 25, 2021

Continued on page 2

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

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16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	E3	Hip Girder	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center),
Valley Center, KS - 67147,
8.430 s Feb 12 2021 MiTek Industries, Inc.

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-mEZ3iYhLAS8fEBkSfuTekNzFKACaxaTDSfBdhYzhb4T

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

J44965904

LOAD CASE(S)
Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-90, 5-6=-90, 6-9=-90, 13-18=-20, 10-13=-20, 10-14=-20
Concentrated Loads (lb)
Vert: 12=-764(B) 11=-784(B)

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	Side Ridge/MO
2630561	F1	Roof Special Girder	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Feb 12 2021 MiTek Industries, Inc. 14965905
ID:VPVqVFnP0P0b1j2tZrIQeqzdKbx-EQ7RvuhzxmgWRLJeDb_tGbWRlaeYg_XMgJwBE_zhb4S						Lee's Summit, Missouri
0-10-8	4-2-0	7-6-4	9-5-0	11-0-4	14-8-0	16-8-0
0-10-8	4-2-0	3-4-4	1-10-12	1-7-4	3-7-12	2-0-0
						1-8-0
						21-4-13
						3-0-13
						24-6-0
						3-1-3
						25-4-8
						0-10-8
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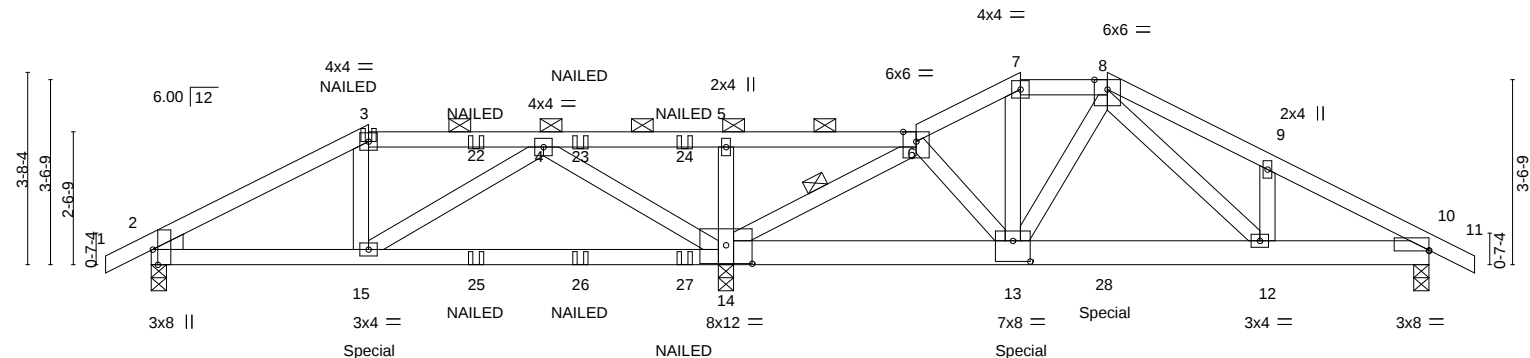


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [10:0-0-0,0-0-3], [13:0-4-0,0-4-12], [14:0-6-0,0-4-4]
LOADING (psf)	SPACING-	2-0-0
TCLL 25.0	Plate Grip DOL	1.15
TCDL 20.0	Lumber DOL	1.15
BCLL 0.0	Rep Stress Incr	NO
BCDL 10.0	Code IRC2018/TPI2014	
	CSI.	
	TC	0.68
	BC	0.55
	WB	0.53
	Matrix-MS	
	DEFL.	
	in (loc)	l/defl
	Vert(LL)	-0.09 14-15 >999 240
	Vert(CT)	-0.20 14-15 >656 180
	Horz(CT)	0.02 10 n/a n/a
	PLATES	GRIP
	MT20	197/144
	Weight: 104 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2 *Except*
 10-14: 2x6 SPF 2100F 1.8E
 WEBS 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-7-13 oc purlins, except
 2-0-0 oc purlins (4-4-13 max.): 3-6, 7-8.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 6-14

REACTIONS.

(size) 2=0-3-8, 10=0-3-8, 14=0-3-8
 Max Horz 2=-61(LC 30)
 Max Uplift 2=-185(LC 8), 10=-310(LC 9), 14=-753(LC 8)
 Max Grav 2=752(LC 21), 10=1373(LC 1), 14=3098(LC 1)

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

TOP CHORD 2-3=-1033/266, 3-4=-855/266, 4-5=-291/1276, 5-6=-290/1278, 6-7=-2037/525,
 7-8=-1753/467, 8-9=-2282/604, 9-10=-2336/548
 BOT CHORD 2-15=-228/856, 13-14=-306/1371, 12-13=-316/1599, 10-12=-430/2022
 WEBS 6-13=-154/717, 7-13=-218/748, 5-14=-433/152, 6-14=-3102/740, 4-15=-167/821,
 4-14=-1669/488, 8-13=-172/407, 8-12=-192/624

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 185 lb uplift at joint 2, 310 lb uplift at joint 10 and 753 lb uplift at joint 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 327 lb down and 129 lb up at 4-2-0, and 822 lb down and 281 lb up at 16-8-0, and 822 lb down and 281 lb up at 18-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

Continued on page 2



February 25, 2021

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods
2630561	F1	Roof Special Girder	1	1	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. LEE'S SUMMIT, MISSOURI

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-ichq7Dibi4ONTVurnJV6po3cVz_mPRnWvzgkmQzhh4R

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

J44965905

LOAD CASE(S) Standard

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

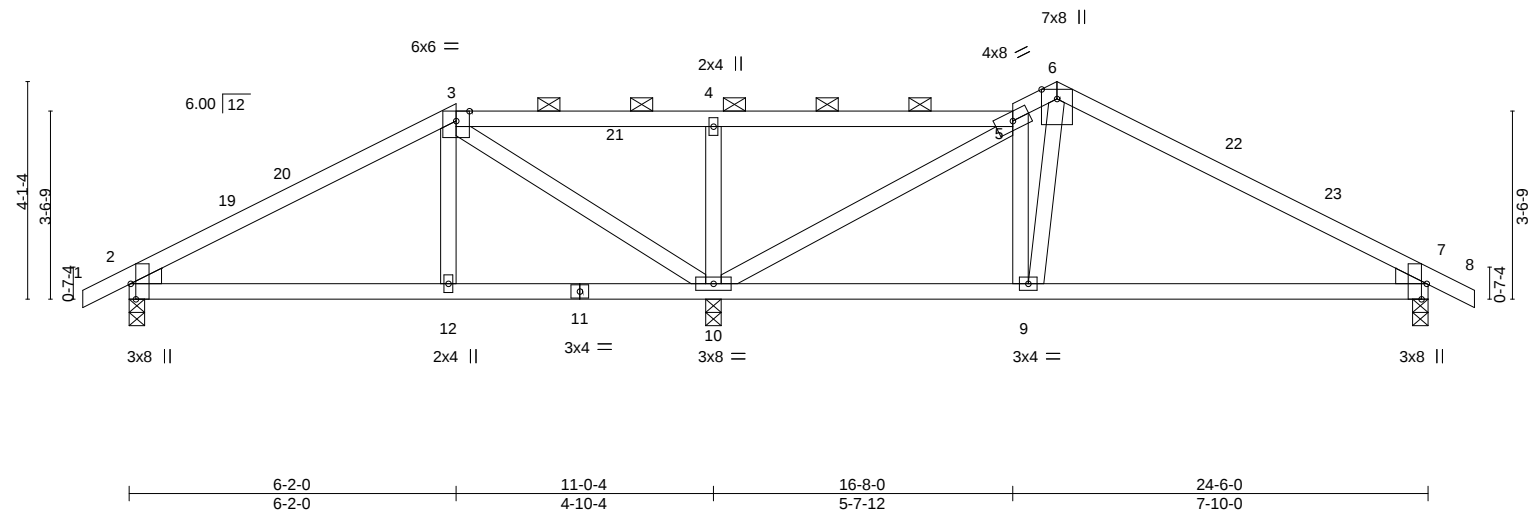
Uniform Loads (plf)

Vert: 1-3=-90, 3-6=-90, 6-7=-90, 7-8=-90, 8-11=-90, 16-19=-20

Concentrated Loads (lb)

Vert: 3=-65(B) 15=-327(B) 13=-822(B) 22=-65(B) 23=-65(B) 24=-65(B) 25=-42(B) 26=-42(B) 27=-42(B) 28=-822(B)





LOADING	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15		TC 0.57	Vert(LL) 0.07	9-18	>999	240		MT20	197/144
TCDL 20.0	Lumber DOL 1.15		BC 0.45	Vert(CT) -0.16	9-18	>999	180			
BCLL 0.0	Rep Stress Incr YES		WB 0.64	Horz(CT) 0.02	2	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 90 lb	FT = 20%

LUMBER-

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

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 7=0-3-8, 10=0-3-8
 Max Horz 2=69(LC 12)
 Max Uplift 2=-130(LC 12), 7=-148(LC 13), 10=-214(LC 12)
 Max Grav 2=679(LC 1), 7=815(LC 1), 10=1359(LC 1)

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

TOP CHORD	2-3=-724/172, 5-6=-829/220, 6-7=-930/198
BOT CHORD	2-12=-103/556, 10-12=-104/549, 9-10=-87/781, 7-9=-80/724
WEBS	5-9=-263/136, 6-9=-85/419, 4-10=-514/174, 3-10=-641/123, 5-10=-844/112

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-2-0, Exterior(2R) 6-2-0 to 9-2-0, Interior(1) 9-2-0 to 17-6-0, Exterior(2R) 17-6-0 to 20-6-0, Interior(1) 20-6-0 to 25-4-8 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) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 2, 148 lb uplift at joint 7 and 214 lb uplift at joint 10.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021



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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2630561

Truss

F3

Truss Type

Half Hip Girder

Qty

1

Ply

2

Summit/39 Woods

side Ridge/MO

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

Lee's Summit, Missouri

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-f?paXvkrEhf5ip2DukXauD81BnintJspNH9rrJzhb4P

03/08/2021

Scale = 1:28.4

Plate Offsets (X,Y)--	[1:0-0-0,0-2-1], [3:0-2-4,0-0-12], [6:0-3-8,0-5-12]							
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.35	Vert(LL) -0.04	6-7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.32	Vert(CT) -0.09	6-7	>999	180		
BCLL 0.0	Rep Stress Incr NO	WB 0.62	Horz(CT) 0.02	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS					Weight: 137 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-9 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD 2x8 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS.	(size) 1=0-3-8, 5=0-3-8
	Max Horz 1=165(LC 7)
	Max Uplift 1=-700(LC 8), 5=-727(LC 5)
	Max Grav 1=4792(LC 1), 5=4739(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-7065/1056, 2-3=-3495/545
BOT CHORD	1-7=-972/6277, 6-7=-972/6277, 5-6=-473/2896
WEBS	2-7=-420/3101, 2-6=-3666/613, 3-6=-772/5064, 3-5=-4833/754

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 700 lb uplift at joint 1 and 727 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-5-12 from the left end to 9-5-12 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S)	Standard
1) Dead + Roof Live (balanced):	Lumber Increase=1.15, Plate Increase=1.15

February 25,2021

Continued on page 2

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

MiTek

16023 Swingley Ridge Rd
Chesterfield, MO 63017

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

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	F3	Half Hip Girder	1	2	Job Reference (optional)	
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Feb 12 2021 MiTek Industries, Inc. LEE'S SUMMIT, MISSOURI		
				ID:VPVqvFnP0P0b1j2tZrIQezdKbx-f?paXvkrEhf5ip2DukXauD81BnintJspNH9rrJzhb4P		

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

J44965907

LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-3=-90, 3-4=-90, 5-8=-20

Concentrated Loads (lb)

Vert: 11=-1670(F) 12=-1662(F) 13=-1662(F) 14=-1662(F) 15=-1662(F)

Job

2630561

Truss

G1

Truss Type

Hip Girder

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

Job Reference (optional)

0-10-8

3-10-4

3-11-12

3-11-0

0-0-12

7-10-0

3-10-4

0-10-8

4x4 =

NAILED

3

2.6-6

0-7-4

1

2

6.00 | 12

4

5

6

2x4 ||

Special

3x8 ||

3-10-4

3-11-12

3-11-0

0-0-12

7-10-0

3-10-4

0-10-8

3-10-4

3-11-12

3-11-0

0-0-12

7-10-0

3-10-4

0-10-8

Scale = 1:18.3

03/08/2021

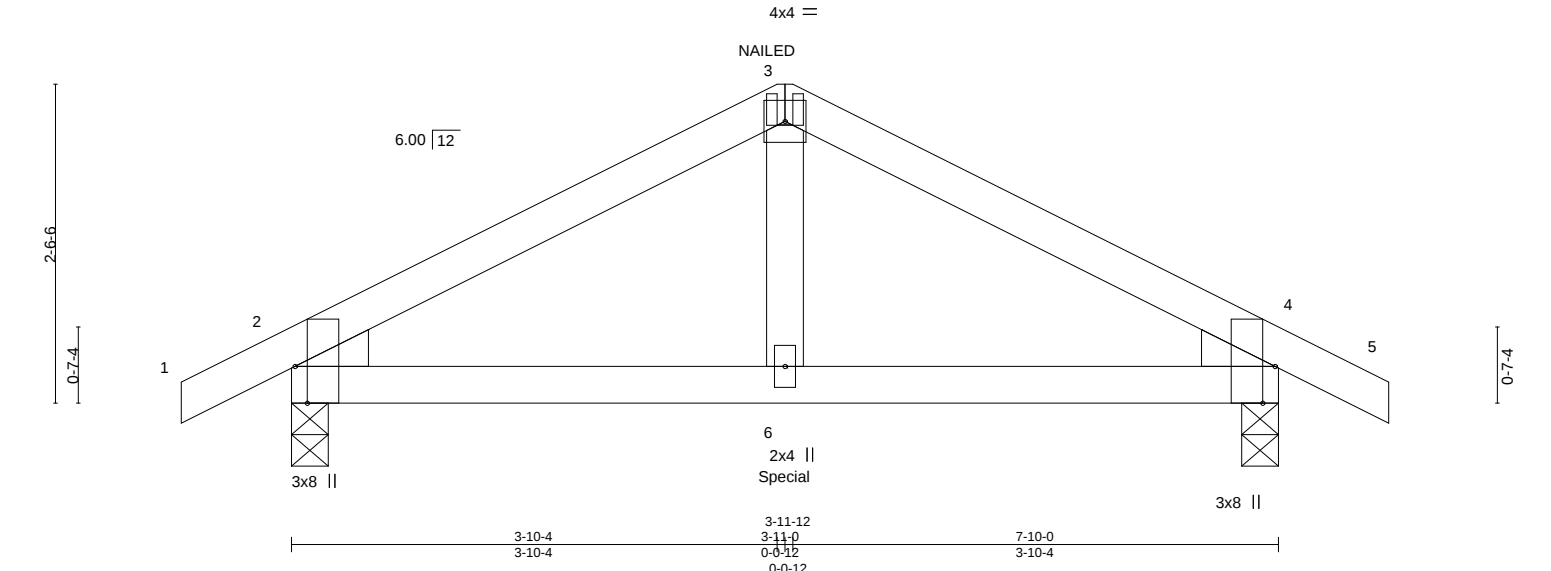


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24
TCDL 20.0	Lumber DOL	1.15	BC 0.35
BCLL 0.0	Rep Stress Incr	NO	WB 0.15
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 6-9 >999 240
			Vert(CT) -0.02 6-9 >999 180
			Horz(CT) 0.01 4 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 25 lb FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-6-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-3-8
Max Horz 2=42(LC 29)
Max Uplift 2=-193(LC 8), 4=-193(LC 9)
Max Grav 2=813(LC 1), 4=813(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1071/288, 3-4=-1071/288
BOT CHORD 2-6=-214/887, 4-6=-214/887
WEBS 3-6=-155/597

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 2 and 193 lb uplift at joint 4.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
 - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 555 lb down and 232 lb up at 3-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
 - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-90, 3-5=-90, 7-10=-20

Concentrated Loads (lb)

Vert: 6=-555(F) 3=-51(F)



February 25, 2021

Job

2630561

Truss

G2

Truss Type

Common

Qty

3

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965909

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-7BMylFku??nyKzcQSR2pRRhFN85lcvDybxuONlzhb40

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

0-10-8

0-10-8

3-11-0

3-11-0

7-10-0

3-11-0

8-8-8

0-10-8

4x4 =

Scale = 1:17.7

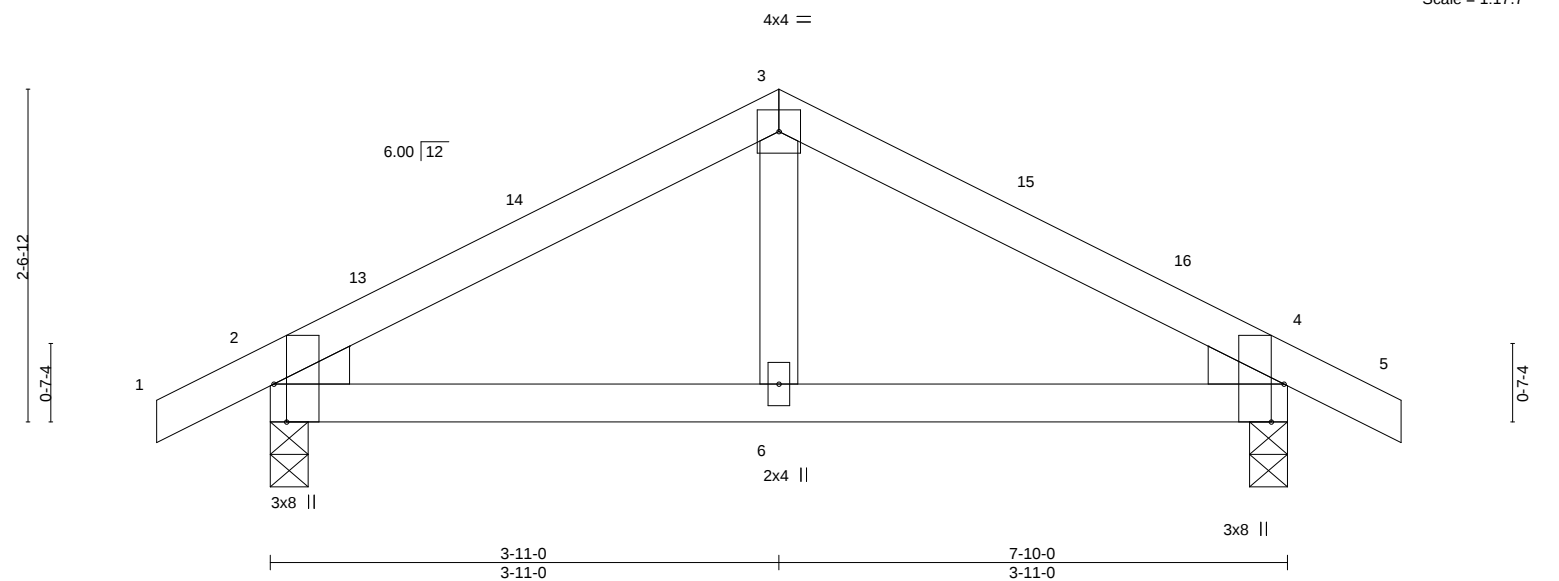


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-3-8,Edge]															
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	-0.01	6-9	>999	240					MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.02	6-9	>999	180							
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a							
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS											Weight: 25 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
WEDGE			
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2			

REACTIONS.	
(size)	2=0-3-8, 4=0-3-8
Max Horz	2=42(LC 12)
Max Uplift	2=-78(LC 12), 4=-78(LC 13)
Max Grav	2=510(LC 1), 4=510(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-504/224, 3-4=-504/223
BOT CHORD	2-6=-84/383, 4-6=-84/383

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-0, Exterior(2R) 3-11-0 to 6-11-0, Interior(1) 6-11-0 to 8-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 78 lb uplift at joint 2 and 78 lb uplift at joint 4.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25,2021

Job 2630561	Truss J1	Truss Type Jack-Closed	Qty 5	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri			
			Job Reference (optional)			
			ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-bOwKyb6mIvpy6Bc08a2zeDIJbMLLM25qbeyvCzhb4N			
			0-10-8 0-10-8			
			6-8-4 6-8-4			
			Scale = 1:24.3			

RELEASE FOR
CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

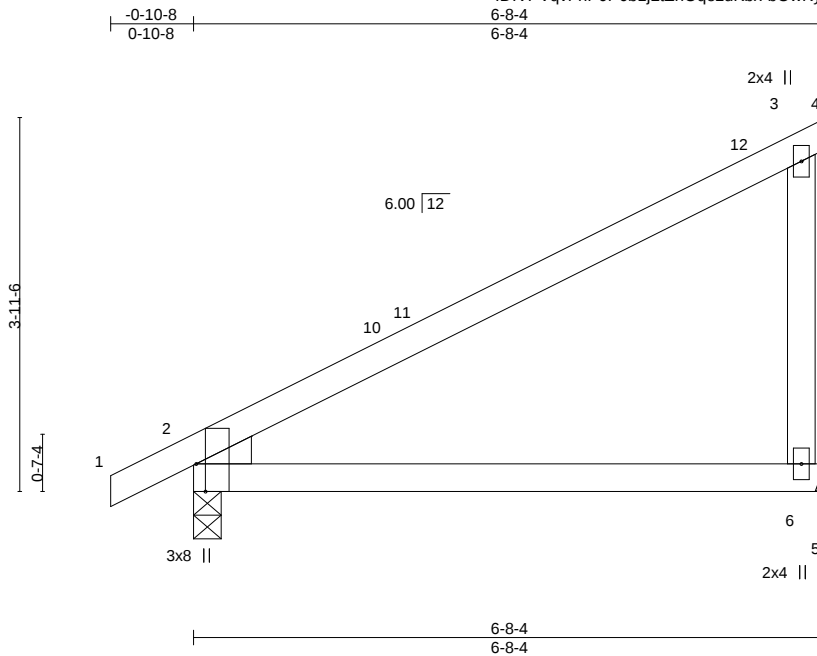


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.69
TCDL 20.0	Lumber DOL	1.15	BC 0.51
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.10 6-9 >735 240
			Vert(CT) -0.21 6-9 >365 180
			Horz(CT) 0.04 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 22 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
 Max Horz 2=153(LC 11)
 Max Uplift 6=84(LC 12), 2=62(LC 12)
 Max Grav 6=364(LC 1), 2=437(LC 1)

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

TOP CHORD 3-6=-265/230

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 6 and 62 lb uplift at joint 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job

2630561

Truss

J2

Truss Type

Jack-Open

Qty

3

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-ukr_Q_rV6SnplBEyw7ChI70ZFPp_UXn7RBqpfIzhb4G

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Scale = 1:17.4

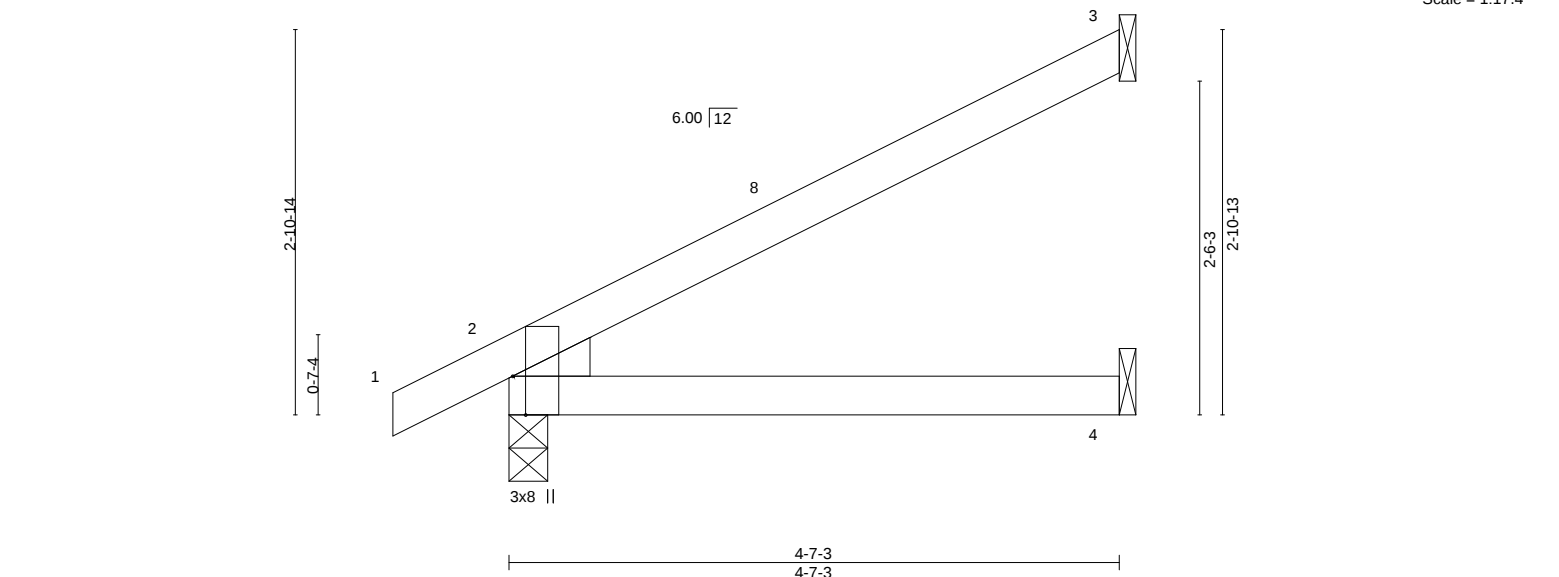


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33
TCDL 20.0	Lumber DOL	1.15	BC 0.25
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.03 4-7 >999 240
			Vert(CT) -0.05 4-7 >997 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 13 lb FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=108(LC 12)
Max Uplift 3=-73(LC 12), 2=-39(LC 12), 4=-1(LC 12)
Max Grav 3=174(LC 1), 2=336(LC 1), 4=89(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-6-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 3, 39 lb uplift at joint 2 and 1 lb uplift at joint 4.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job 2630561	Truss J3	Truss Type Jack-Open	Qty 7	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center),		Valley Center, KS - 67147,		8.430 s Feb 12 2021 MiTek Industries, Inc.		RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI 03/08/2021
ID:VPVqFnP0P0b1j2tZrIOqezdKbx-MwPMek7tmvgvLo8UqjwIKZoppB5D_1HgraNBkzhb4F			Job Reference (optional)			

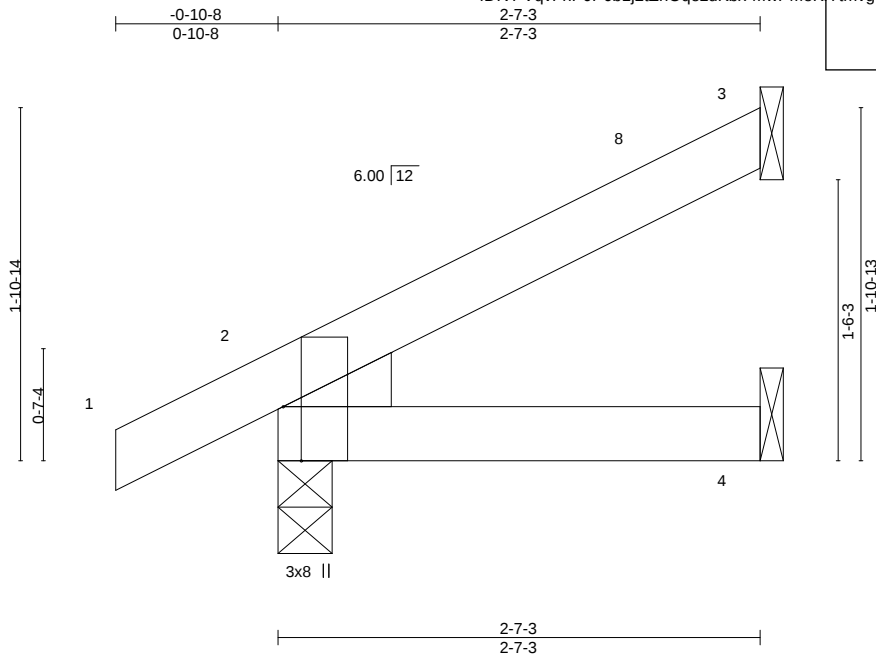


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08
TCDL 20.0	Lumber DOL	1.15	BC 0.07
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 4-7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 8 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEDGE
 Left: 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-7-3 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=67(LC 12)
 Max Uplift 3=-38(LC 12), 2=-30(LC 12), 4=-4(LC 12)
 Max Grav 3=88(LC 1), 2=232(LC 1), 4=49(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 3, 30 lb uplift at joint 2 and 4 lb uplift at joint 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job

2630561

Truss

J4

Truss Type

Jack-Open

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 12 2021 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQeZdKbx-q6zkrgsle31XXVNL2XE9qY5vWDT?yRHQuVKwJAzhb4E

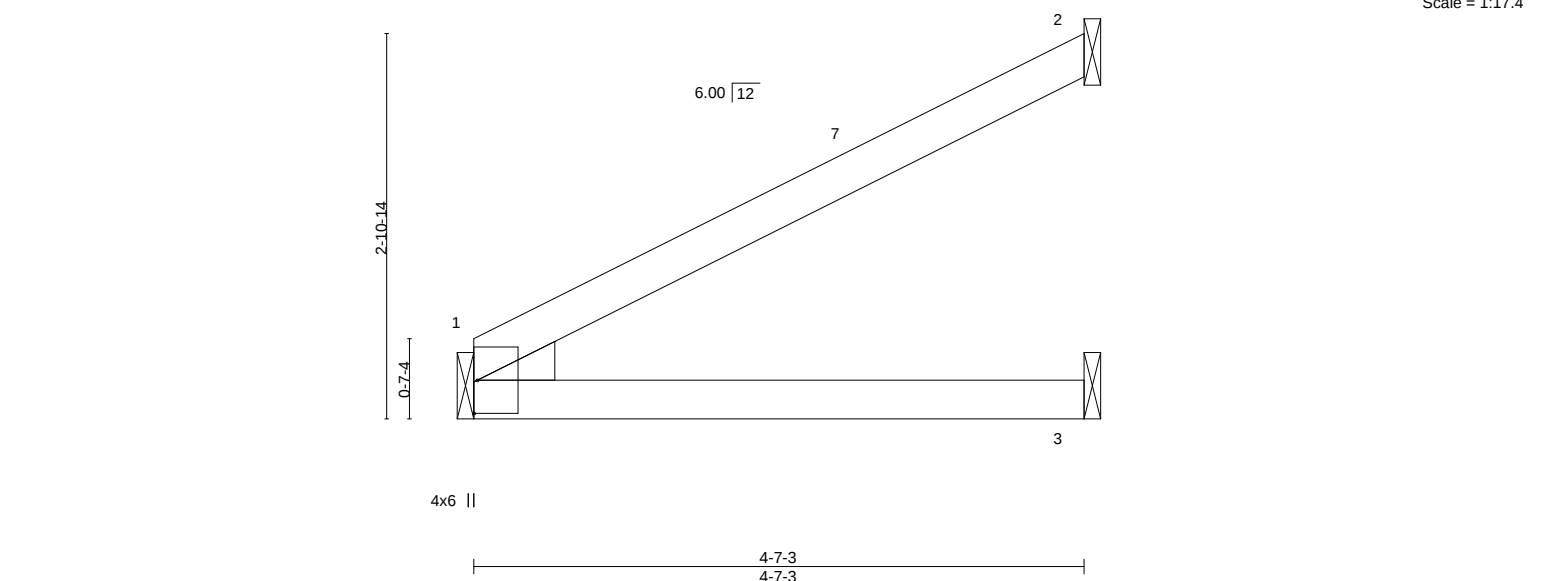
RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Scale = 1:17.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34	Vert(LL)	0.04	3-6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.06	3-6	>915	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	1	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 12 lb	FT = 20%

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

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

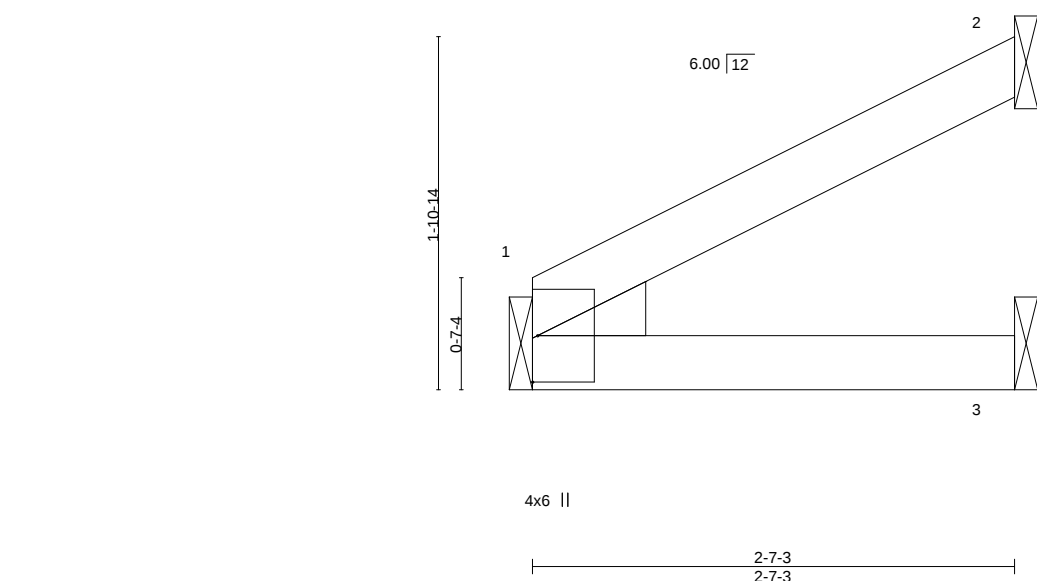
REACTIONS. (size) 2=Mechanical, 3=Mechanical, 1=Mechanical
 Max Horz 1=93(LC 12)
 Max Uplift 2=-73(LC 12), 3=-2(LC 12), 1=-17(LC 12)
 Max Grav 2=177(LC 1), 3=91(LC 3), 1=250(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 2, 2 lb uplift at joint 3 and 17 lb uplift at joint 1.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	-0.01	3-6	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	1	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 7 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

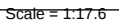
REACTIONS. (size) 2=Mechanical, 3=Mechanical, 1=Mechanical
Max Horz 1=52(LC 12)
Max Uplift 2=-40(LC 12), 3=-5(LC 12), 1=-7(LC 12)
Max Grav 2=94(LC 1), 3=52(LC 3), 1=140(LC 1)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 2, 5 lb uplift at joint 3 and 7 lb uplift at joint 1.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J7	Truss Type Jack-Open	Qty 8	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. 14965916			
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-mV5VGMu?AhHFmpXj9yGdwzBF709lQLnjMpp1o3zhh4C			Job Reference (optional)			
0-10-8 0-10-8			4-8-4 4-8-4			

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

Scale = 1:17.6

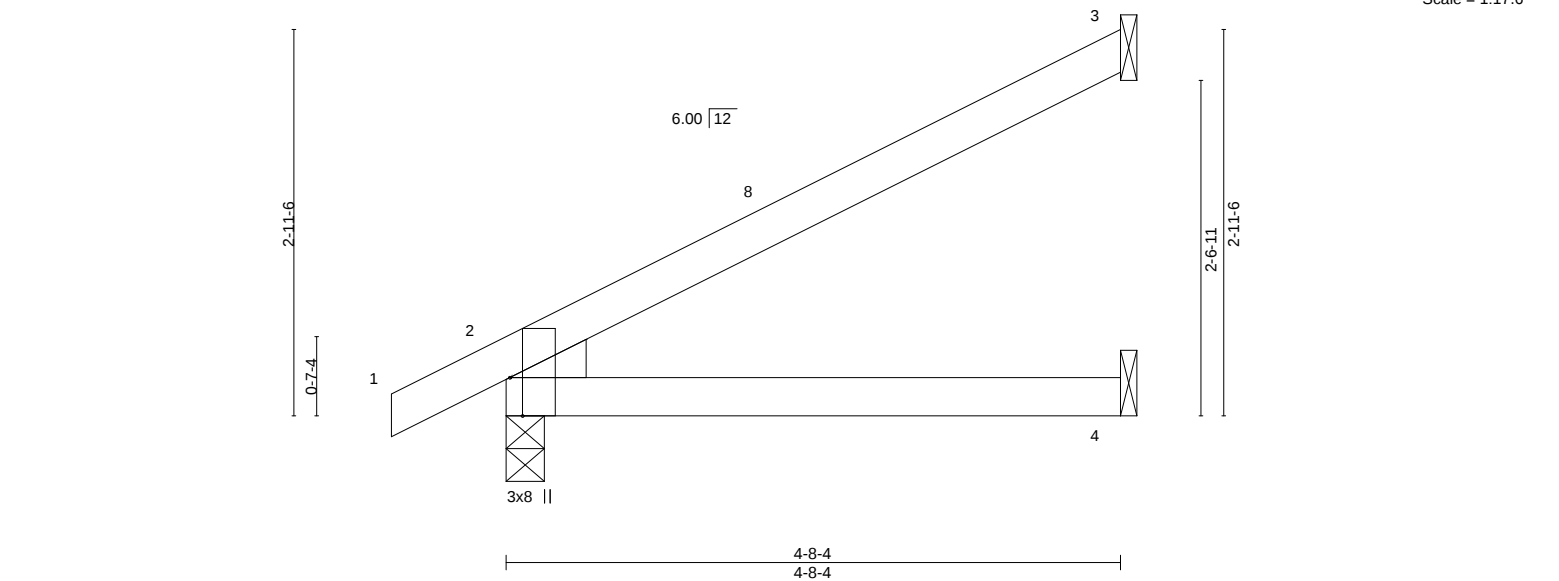


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.34
TCDL 20.0	Lumber DOL	1.15	BC 0.26
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.04 4-7 >999 240
			Vert(CT) -0.06 4-7 >942 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 13 lb FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=110(LC 12)
Max Uplift 3=-74(LC 12), 2=-39(LC 12), 4=-1(LC 12)
Max Grav 3=177(LC 1), 2=341(LC 1), 4=91(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-7-8 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
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 3, 39 lb uplift at joint 2 and 1 lb uplift at joint 4.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job

2630561

Truss

J8

Truss Type

Jack-Open

Qty

4

Ply

1

Summit/39 Woods

side Ridge/MO

8.430 s Feb 12 2021

MiTek Industries, Inc.

Job Reference (optional)

Lee's Summit, Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-mV5VGMu?AhHFmpXj9yGdwzBDp08TQLnjMpp1o3zhh4C

RELEASE FOR

CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Scale = 1:17.6

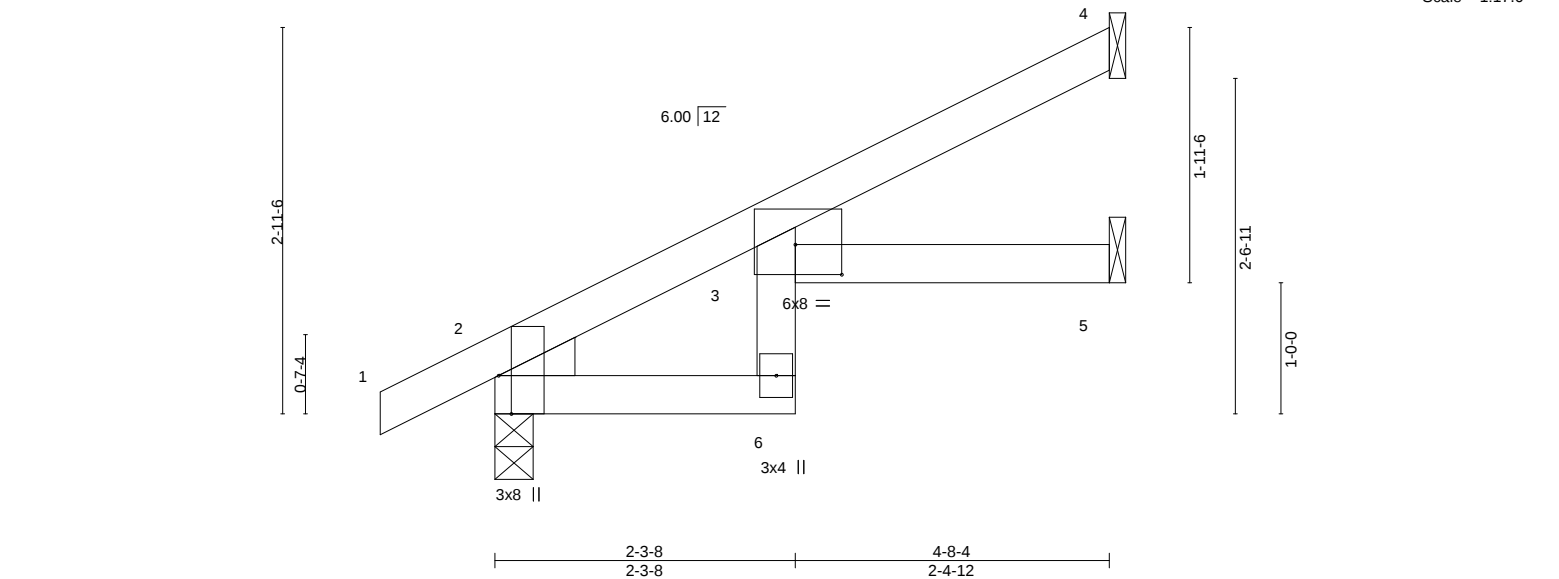


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [3:0-4-4,0-2-12]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.48
TCDL 20.0	Lumber DOL	1.15	BC 0.35
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.06 6 >949 240
			Vert(CT) -0.09 6 >609 180
			Horz(CT) 0.07 5 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 15 lb FT = 20%

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

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=110(LC 12)
Max Uplift 4=-60(LC 12), 2=-39(LC 12), 5=-15(LC 12)
Max Grav 4=157(LC 1), 2=342(LC 1), 5=93(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 4-7-8 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 60 lb uplift at joint 4, 39 lb uplift at joint 2 and 15 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job

2630561

Truss

J9

Truss Type

Jack-Open

Qty

2

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, MO 64086-1401

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-EhftTudx_P6Oy6wjgnSSAjUZQYz9o1sbSYakVzhb4B

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Scale = 1:12.4

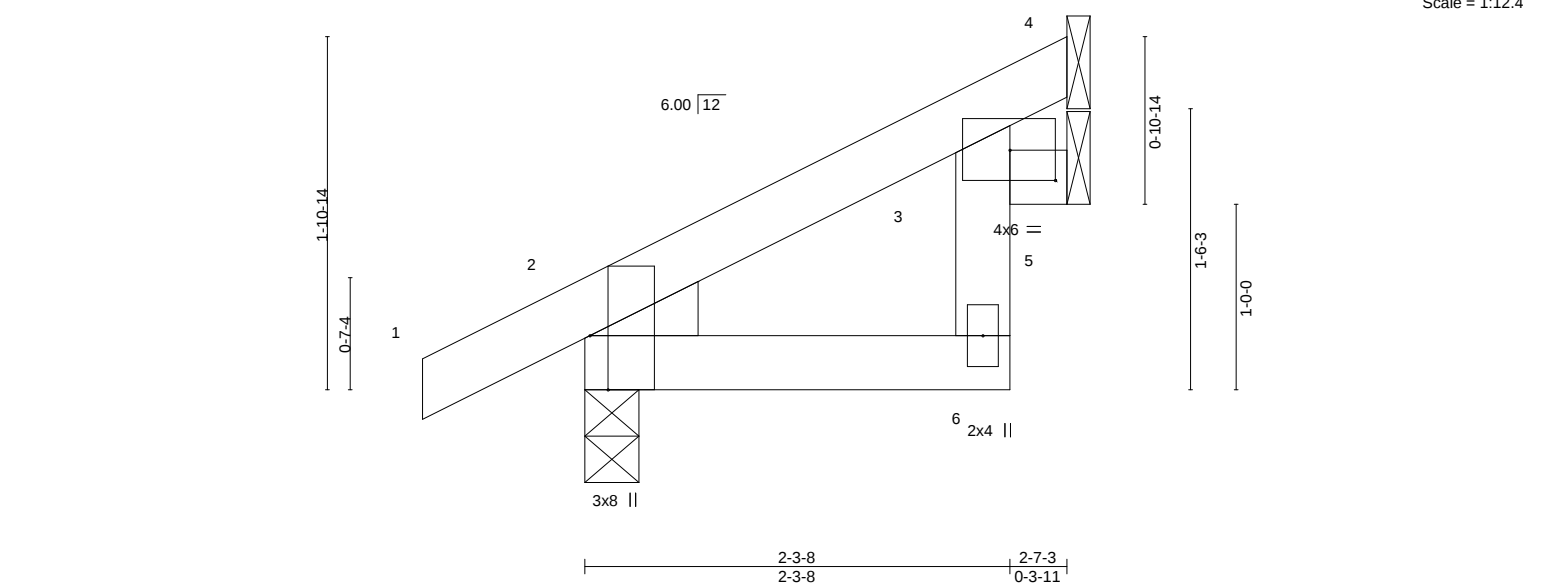


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [3:0-2-15,0-1-15]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10
TCDL 20.0	Lumber DOL	1.15	BC 0.07
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MR
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.00 9 >999 240
			Vert(CT) -0.01 6 >999 180
			Horz(CT) 0.01 5 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 10 lb FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=67(LC 12)
Max Uplift 4=-25(LC 12), 2=-30(LC 12), 5=-16(LC 12)
Max Grav 4=72(LC 1), 2=232(LC 1), 5=56(LC 1)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 2-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 4, 30 lb uplift at joint 2 and 16 lb uplift at joint 5.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job 2630561	Truss J10	Truss Type Jack-Open	Qty 4	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, MO 64063			
ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-3aUjAxmKXc1gaGmoas5HWsmYo_mk4pIF3FNVRezhb4M			Job Reference (optional)			

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021

J44965919
 14965919

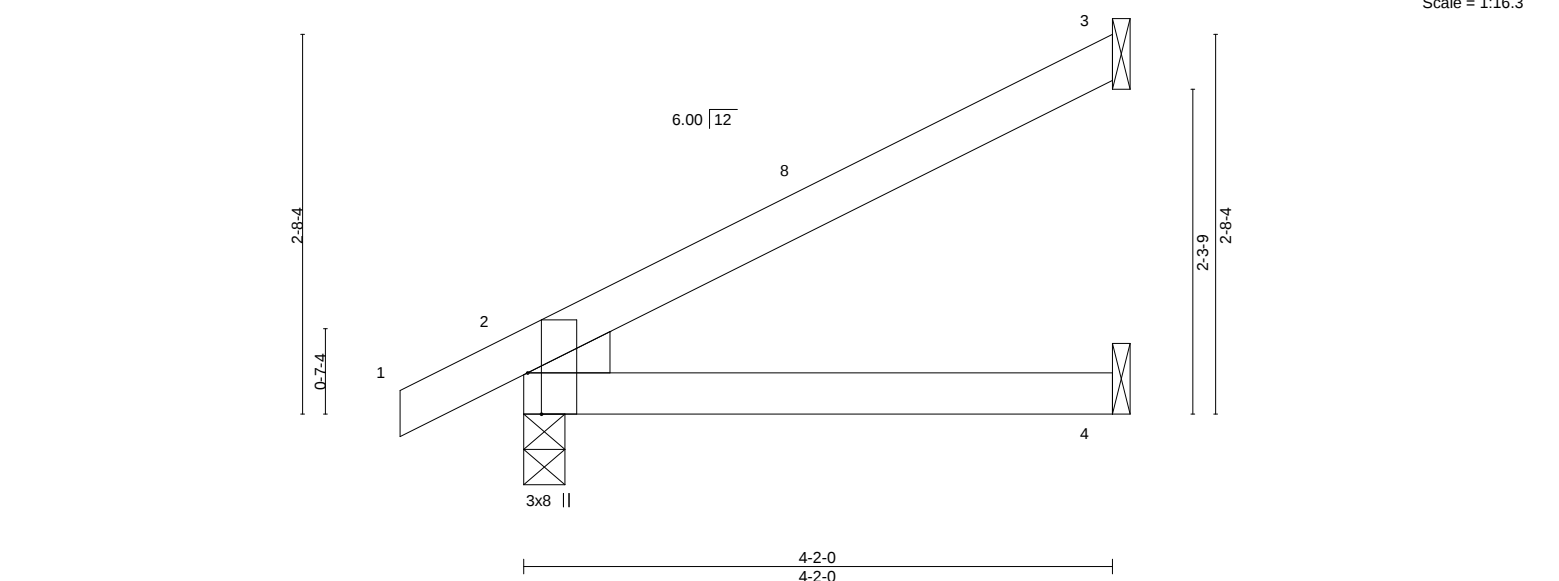


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26
TCDL 20.0	Lumber DOL	1.15	BC 0.21
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) 0.02 4-7 >999 240
			Vert(CT) -0.04 4-7 >999 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES MT20 GRIP 197/144
			Weight: 12 lb FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
 Max Horz 2=99(LC 12)
 Max Uplift 3=-65(LC 12), 2=-37(LC 12), 4=-2(LC 12)
 Max Grav 3=155(LC 1), 2=313(LC 1), 4=80(LC 3)

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

NOTES-
 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-1-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 3) Refer to girder(s) for truss to truss connections.
 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 3, 37 lb uplift at joint 2 and 2 lb uplift at joint 4.
 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job

2630561

Truss

J11

Truss Type

Jack-Open

Qty

5

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-3aUjAxmKXc1gaGmoas5HWsmbo_py4pIF3FNVRezhb4M

0-10-8

0-10-8

2-0-15

2-0-15

RELEASE FOR CONSTRUCTION

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DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Scale = 1:11.1

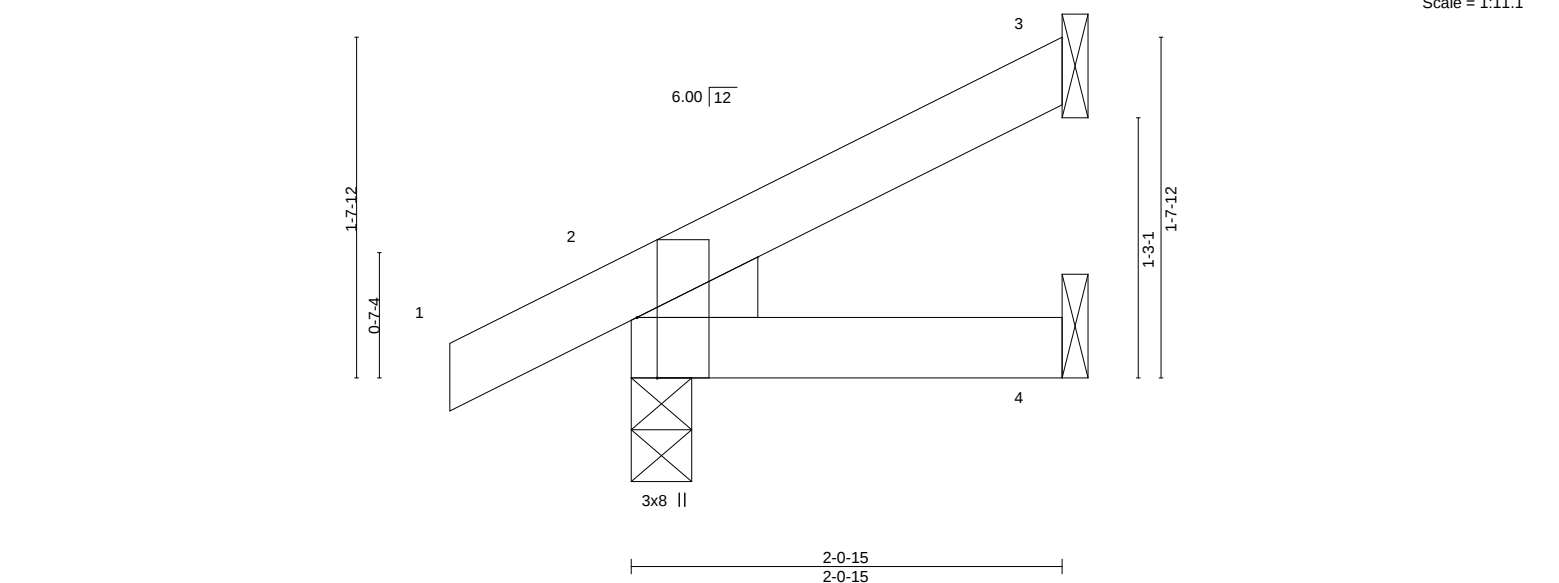


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.04
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 7 lb FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-0-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=56(LC 12)
Max Uplift 3=-29(LC 12), 2=-28(LC 12), 4=-4(LC 12)
Max Grav 3=65(LC 1), 2=207(LC 1), 4=37(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 3, 28 lb uplift at joint 2 and 4 lb uplift at joint 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	Side Ridge/MO
2630561	J12	Jack-Closed	2	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri
Job Reference (optional)						Lee's Summit, Missouri

RELEASE FOR
CONSTRUCTION
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DEVELOPMENT SERVICES
03/08/2021

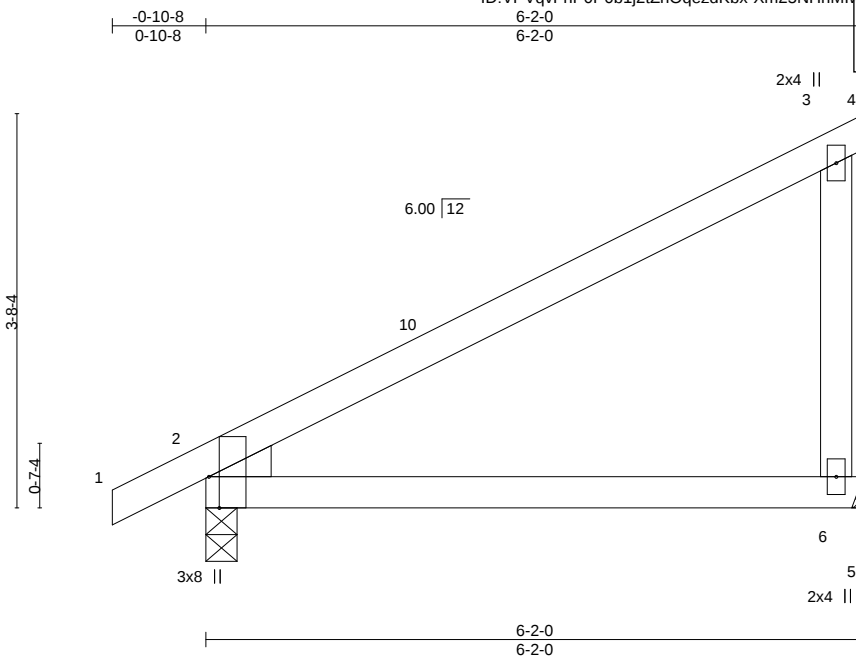


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.58
TCDL 20.0	Lumber DOL	1.15	BC 0.43
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL. in (loc) l/defl L/d
			Vert(LL) 0.08 6-9 >885 240
			Vert(CT) -0.15 6-9 >465 180
			Horz(CT) 0.03 2 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 20 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=142(LC 11)
Max Uplift 6=84(LC 12), 2=60(LC 12)
Max Grav 6=335(LC 1), 2=408(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-2-0 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
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 6 and 60 lb uplift at joint 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J13	Truss Type Jack-Open	Qty 3	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. See 141965922			
			Job Reference (optional)			
			ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-?zcTbdo_3DHnpawBhH7lbHrvVoRxYjoYWZscWWzhb4K			
			Lee's Summit, Missouri			
			03/08/2021			

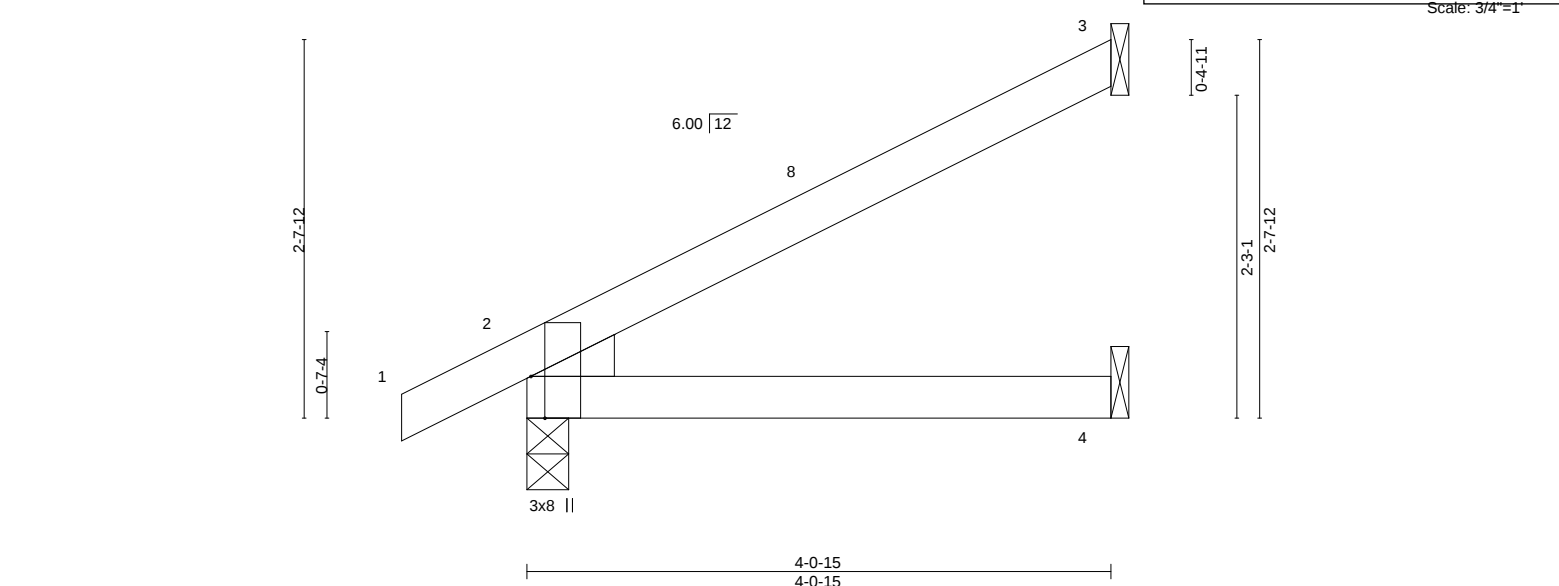


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25
TCDL 20.0	Lumber DOL	1.15	BC 0.20
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.02 4-7 >999 240
			Vert(CT) -0.03 4-7 >999 180
			Horz(CT) 0.01 2 n/a n/a
			PLATES
			MT20
			GRIP
			197/144
			Weight: 12 lb FT = 20%

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

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

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=97(LC 12)
Max Uplift 3=-64(LC 12), 2=-36(LC 12), 4=-2(LC 12)
Max Grav 3=152(LC 1), 2=308(LC 1), 4=79(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-3 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 64 lb uplift at joint 3, 36 lb uplift at joint 2 and 2 lb uplift at joint 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

Job

2630561

Truss

J14

Truss Type

Jack-Open

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-?zcTbdo_3DHNpawBhH7IbHrvcoSjYjoYWZscWWz4K

14965923

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

RELEASE FOR CONSTRUCTION

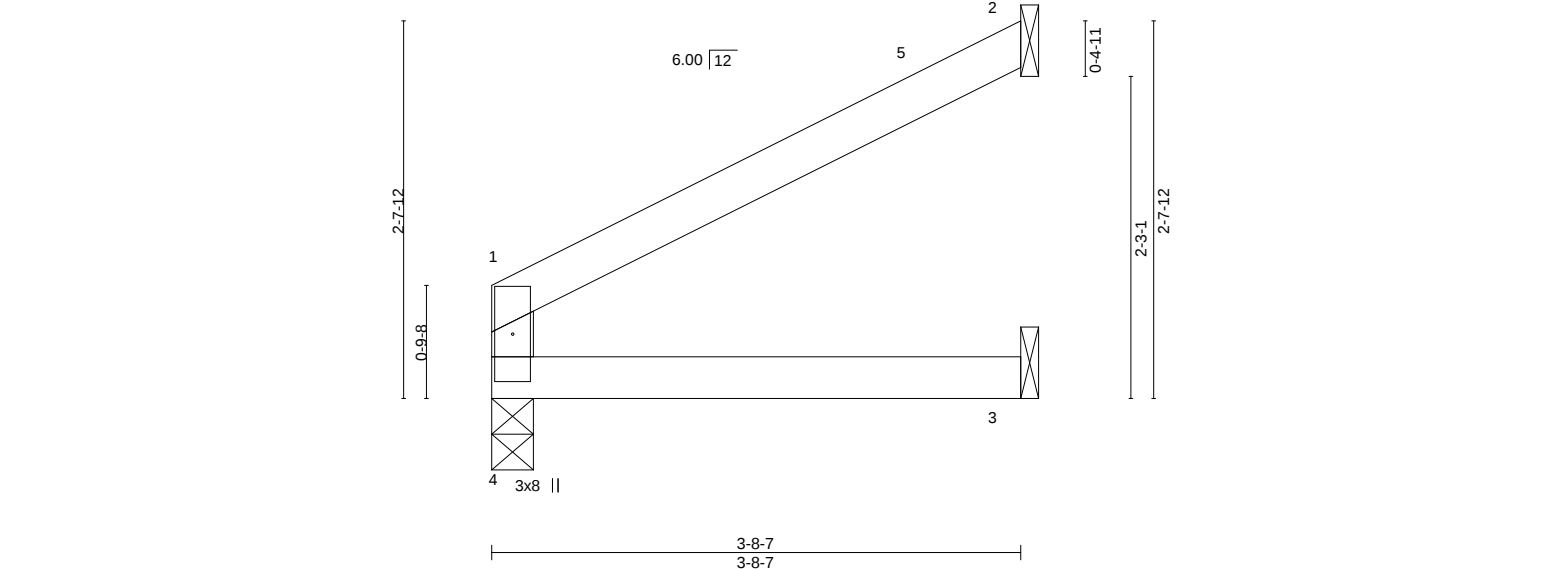
AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Scale: 3/4"=1'



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	-0.01 3-4	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02 3-4	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01 2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 9 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-8-7 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=64(LC 12)
Max Uplift 4=7(LC 12), 2=65(LC 12)
Max Grav 4=192(LC 1), 2=144(LC 1), 3=71(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-7-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 4 and 65 lb uplift at joint 2.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job

2630561

Truss

J15

Truss Type

Jack-Open

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri Page 1

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-T9AroyocdXPERkVNF_e_7U07QCqeHA2hDc92zzhb4J

RELEASE FOR CONSTRUCTION

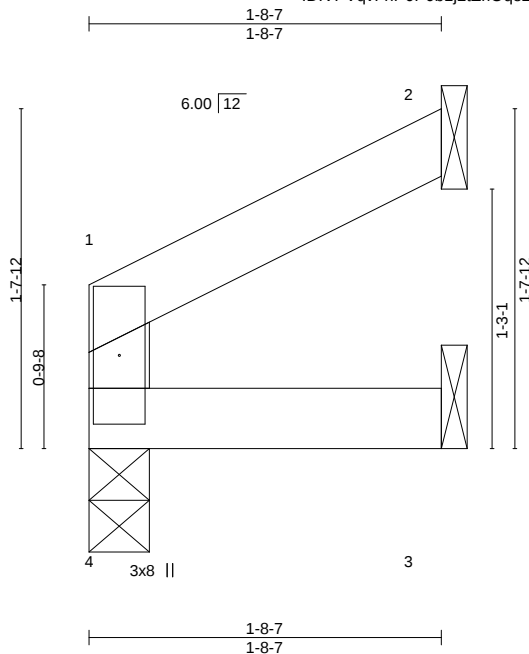
AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Scale = 1:11.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	-0.00	4	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4	>999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR					Weight: 5 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-8-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-3-8, 2=Mechanical, 3=Mechanical
Max Horz 4=31(LC 9)
Max Uplift 2=32(LC 12), 3=-2(LC 12)
Max Grav 4=85(LC 1), 2=65(LC 1), 3=31(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 2 and 2 lb uplift at joint 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

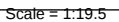


February 25, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-yLkD?lpEbrX52u4Zpi9DgixDbczl0dLr_tLjaPzhb4I



FT = 20%

February 25, 2021



03/08/2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	de Ridge/MO
2630561	J17	Jack-Open	3	1	Job Reference (optional)	

CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

144965925

Builders FirstSource (Valley Center),	Valley Center, KS - 67147,
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8.430 s Feb 12 2021 MiTek Industries, Inc. **LEE'S SUMMIT, MISSOURI** Feb 25 16:03:10 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-yLkD?lpEbrX52u4Zpi9DgixHbc9J0d3r_tLjaPzhb4I

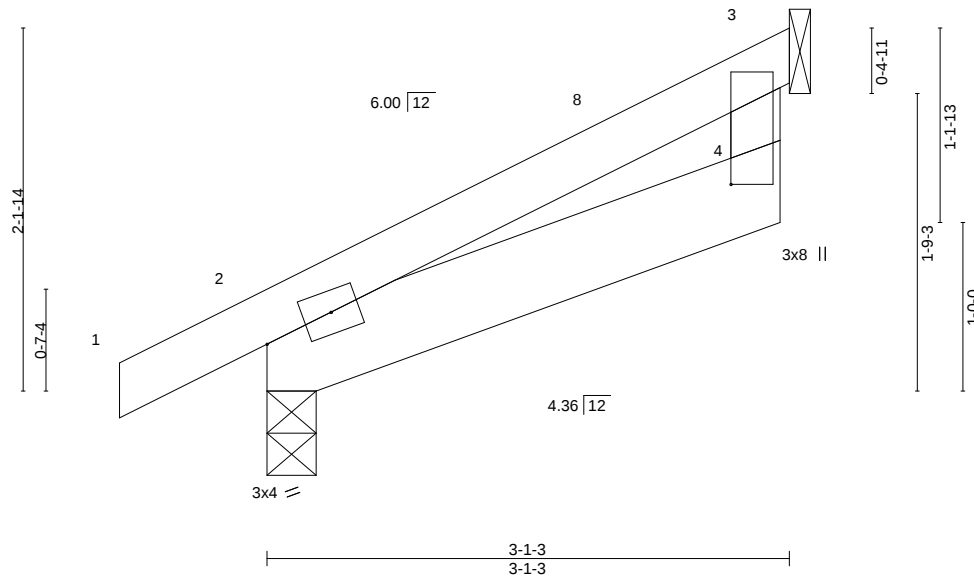
$$\begin{array}{|c|c|c|c|} \hline \frac{-0-10-8}{0-10-8} & \frac{3-0-8}{3-0-8} & \frac{3-1-3}{0-0-11} & \\ \hline \end{array}$$
~~Scale = 1:13.7~~

Plate Offsets (X,Y)-- [4:0-11-6,2-9-0]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	7	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.00	7	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 12 lb FT = 20%

LUMBER-

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

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-1-3 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 3=Mechanical
Max Horz 2=74(LC 12)
Max Uplift 2=-31(LC 12), 3=-48(LC 12)
Max Grav 2=250(LC 1), 3=148(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 2 and 48 lb uplift at joint 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 25, 2021



WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED WELDER REFERENCE PAGE MH-1413 (Rev. 3/25/2020) BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for the building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2671 Crain Highway, Suite 203 Waldorf, MD 20601.



16023 Swingley Ridge Rd
Chesterfield, MO 63017

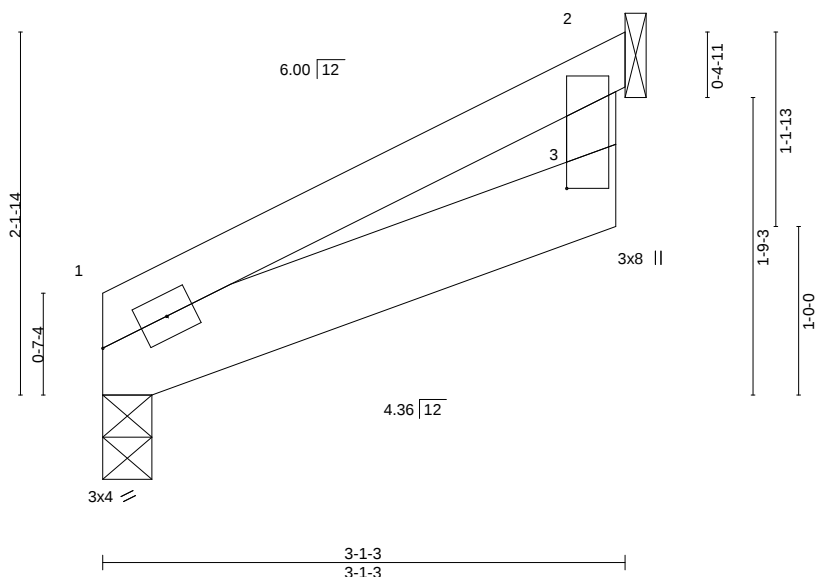


Plate Offsets (X,Y)--		[3:0-11-6,2-9-0]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00 6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	-0.00 3-6	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00 1	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 11 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 3-1-3 oc purlins.
BOT CHORD	2x6 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2		

REACTIONS. (size) 1=0-3-8, 2=Mechanical
Max Horz 1=59(LC 12)
Max Uplift 1=-9(LC 12), 2=-51(LC 12)
Max Grav 1=159(LC 1), 2=159(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCdL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1 and 51 lb uplift at joint 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



February 25, 2021



WARNING: Velly design parameters are READ NOTES ON THIS AND INCLUDED WITH REFERENCE PAGE MM-1473 (Rev. 3/29/2020) BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job

2630561

Truss

J19

Truss Type

Jack-Open

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqFnP0P0b1j2tZr1OqezdKbx-QYlcDeqIM8fyg1fmMPgSDvTQ3?UsI4X_CX5G7rzhb4H

8.430 s Feb 12 2021 MiTek Industries, Inc

RELEASE FOR

CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

Scale = 1:15.5

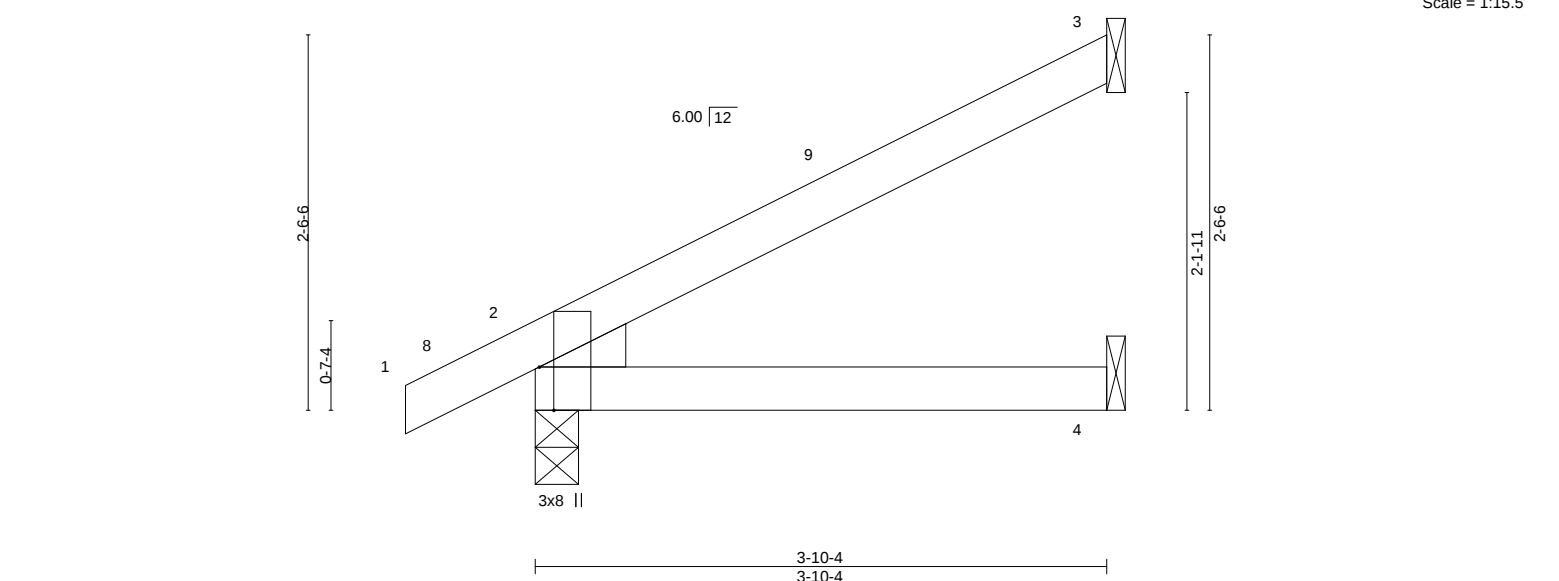


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)		SPACING-	2-0-0
TCLL 25.0		Plate Grip DOL	1.15
TCDL 20.0		Lumber DOL	1.15
BCLL 0.0		Rep Stress Incr	YES
BCDL 10.0		Code	IRC2018/TPI2014
		CSI.	
		TC	0.23
		BC	0.18
		WB	0.00
		Matrix-MP	
		DEFL.	
		in (loc)	l/defl
		Vert(LL)	0.02 4-7 >999 240
		Vert(CT)	-0.03 4-7 >999 180
		Horz(CT)	0.01 2 n/a n/a
		PLATES	GRIP
		MT20	197/144
		Weight: 11 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-10-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=93(LC 12)
Max Uplift 3=-59(LC 12), 2=-35(LC 12), 4=-3(LC 12)
Max Grav 3=141(LC 1), 2=296(LC 1), 4=75(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-8 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
 - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 3) Refer to girder(s) for truss to truss connections.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 59 lb uplift at joint 3, 35 lb uplift at joint 2 and 3 lb uplift at joint 4.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job

2630561

Truss

J21

Truss Type

Jack-Open

Qty

4

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

ID:VPVqVFnP0P0b1j2tZrIOqezdKbx-MwPMek77tmvgvLo8UqjwIKZo1pCkD_1HgraNBkzhb4F

14965929

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

0-10-8

0-10-8

1-9-3

1-9-3

03/08/2021

Scale = 1:10.3

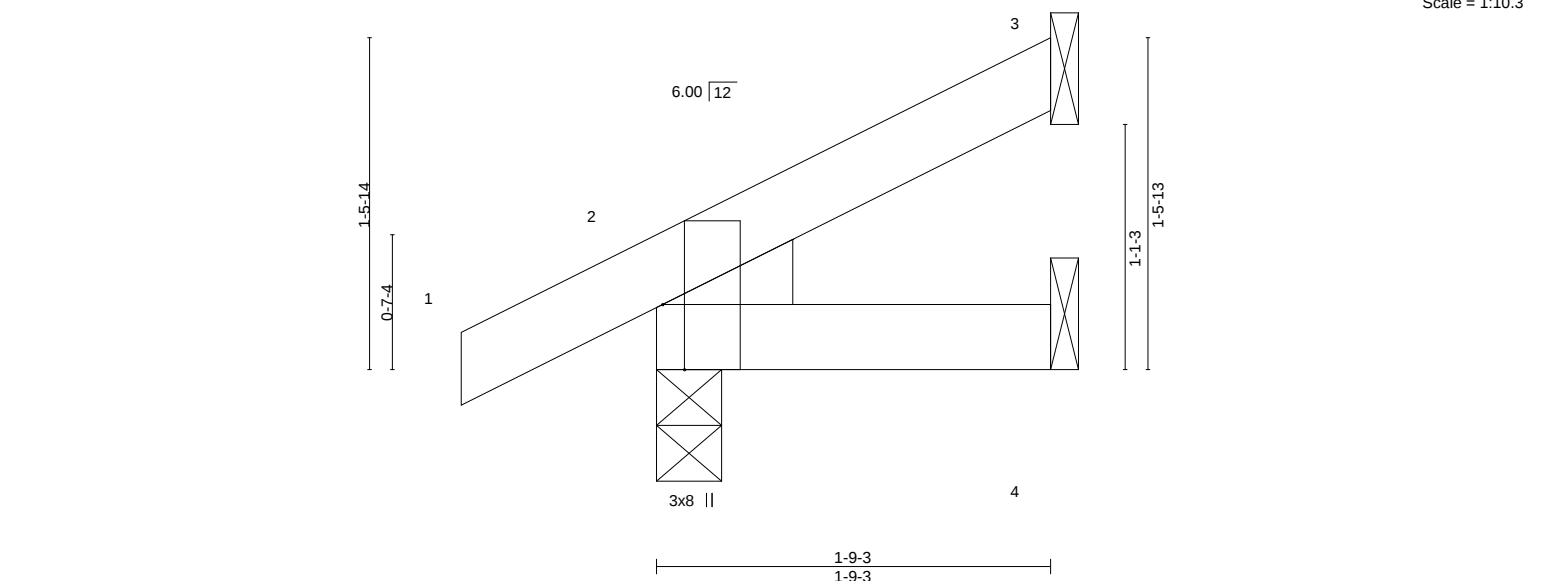


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07
TCDL 20.0	Lumber DOL	1.15	BC 0.03
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-MP
			DEFL. in (loc) l/defl L/d
			Vert(LL) -0.00 7 >999 240
			Vert(CT) -0.00 7 >999 180
			Horz(CT) 0.00 3 n/a n/a
			PLATES GRIP
			MT20 197/144
			Weight: 6 lb FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 1-9-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=51(LC 12)
Max Uplift 3=-25(LC 12), 2=-27(LC 12), 4=-4(LC 12)
Max Grav 3=54(LC 1), 2=195(LC 1), 4=31(LC 3)

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

NOTES-
1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 3, 27 lb uplift at joint 2 and 4 lb uplift at joint 4.
5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job

2630561

Truss

LG1

Truss Type

GABLE

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

ID:VPVqVFnP0P0b1j2tZrIQezdKbx-juDFH1vGilYz06h6HNi5?OGfXqvjuDg0p6l8sxzhb4A

Job Reference (optional)

Lee's Summit, Missouri

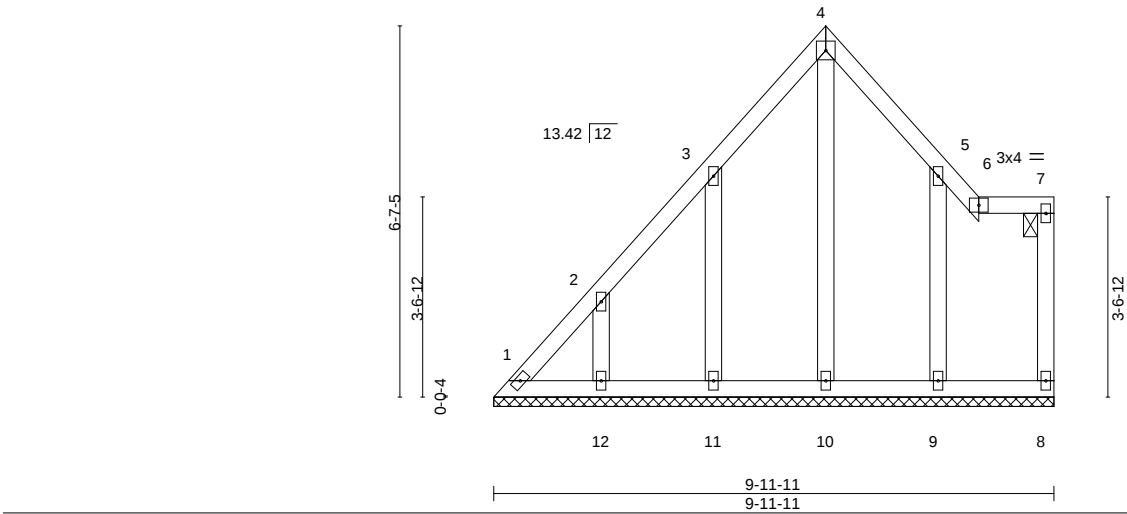
RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Scale = 1:41.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	-0.00	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 48 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 9-11-11.
(lb) - Max Horz 1=210(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 8, 10 except 1=123(LC 8), 11=-149(LC 12), 12=-142(LC 12), 9=-113(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 12 except 10=257(LC 19), 11=266(LC 19), 9=290(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-251/228
WEBS 4-10=-251/145, 3-11=-252/167, 5-9=-283/182

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-10-15, Exterior(2E) 5-10-15 to 8-7-10, Interior(1) 8-7-10 to 9-9-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10 except (jt=lb) 1=123, 11=149, 12=142, 9=113.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25,2021

Job

2630561

Truss

LG2

Truss Type

GABLE

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-B4mduNwuTcgqdGGIq5qKXboqVEF1dgk92m1hPOzhb49

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

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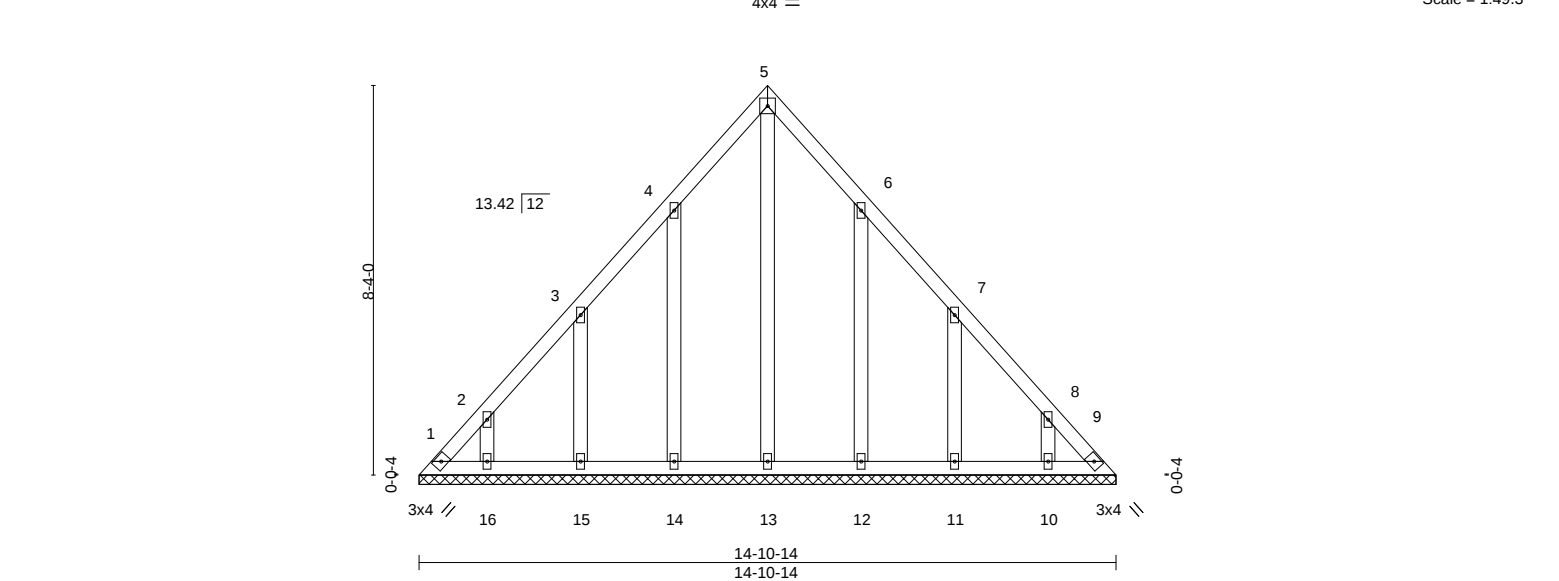
7-5-7

7-5-7

14-10-14

7-5-7

4x4 =



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.00	9	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 73 lb	FT = 20%

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

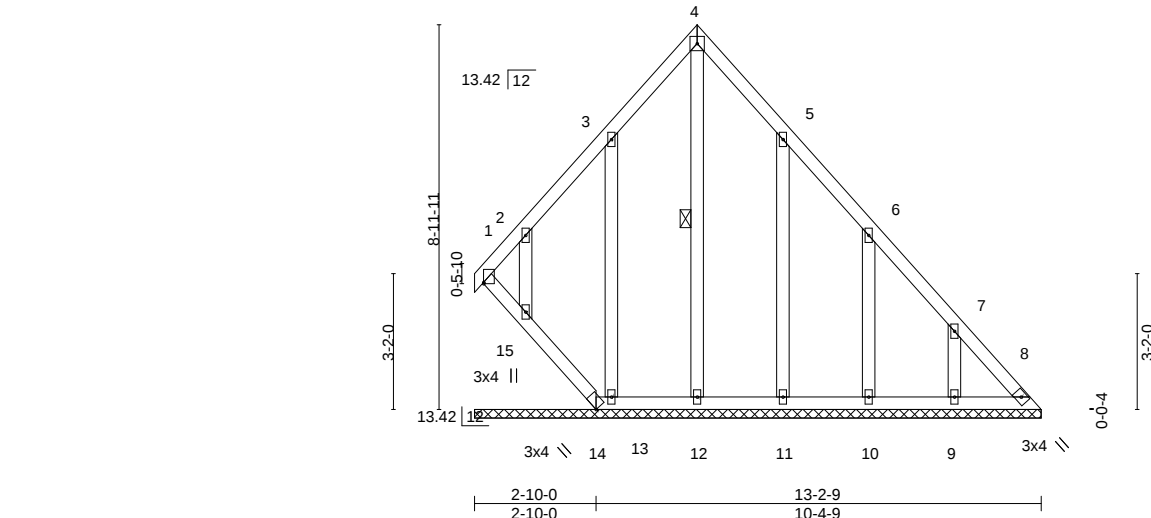
REACTIONS. All bearings 14-10-14.
 (lb) - Max Horz 1=-215(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 9 except 1=-102(LC 10), 14=-145(LC 12), 15=-148(LC 12), 16=-125(LC 12), 12=-144(LC 13), 11=-148(LC 13), 10=-125(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 16, 10 except 14=259(LC 19), 15=252(LC 19), 12=258(LC 20), 11=253(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-305/194, 8-9=-275/194

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-5-7, Interior(1) 3-5-7 to 7-5-7, Exterior(2R) 7-5-7 to 10-5-7, Interior(1) 10-5-7 to 14-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9 except (jt=lb) 1=102, 14=145, 15=148, 16=125, 12=144, 11=148, 10=125.
 - 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.



February 25, 2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	8	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 71 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-12

REACTIONS. All bearings 13-2-9.
(lb) - Max Horz 1=-221(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 8, 1 except 14=-234(LC 13), 13=-158(LC 12), 15=-183(LC 12), 11=-143(LC 13), 10=-145(LC 13), 9=-146(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 8, 14, 12, 15, 10 except 1=291(LC 12), 13=258(LC 19), 11=258(LC 20), 9=256(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 7-8=-273/205
BOT CHORD 1-15=-228/316, 14-15=-228/328

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-11 to 3-2-5, Interior(1) 3-2-5 to 5-2-5, Exterior(2R) 5-2-5 to 8-2-5, Interior(1) 8-2-5 to 12-10-11 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 1 except (jt=lb) 14=234, 13=158, 15=183, 11=143, 10=145, 9=146.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 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.



February 25, 2021

Job

2630561

Truss

LG4

Truss Type

GABLE

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-7TuOJ3y8?DwXtaQhyWsod0uA31we5a0SW4WoTgzhb47

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

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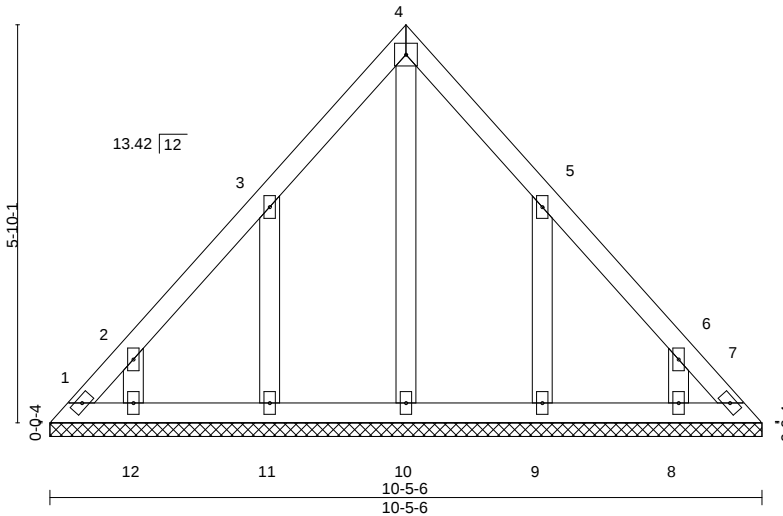
5-2-11

5-2-11

10-5-6

5-2-11

4x4 =



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	7	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 43 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS. All bearings 10-5-6.

(lb) - Max Horz 1=-148(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-154(LC 12), 12=-119(LC 12), 9=-154(LC 13), 8=-120(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 12, 8 except 11=270(LC 19), 9=269(LC 20)

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

WEBS 3-11=-254/172, 5-9=-254/171

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-2-11, Interior(1) 3-2-11 to 5-2-11, Exterior(2R) 5-2-11 to 8-2-11, Interior(1) 8-2-11 to 10-1-7 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=154, 12=119, 9=154, 8=120.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job

2630561

Truss

LG5

Truss Type

GABLE

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-bfSmXPymX2OUk?rWDN19EQKjRGtq2pckkGL0jzhb46

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

03/08/2021

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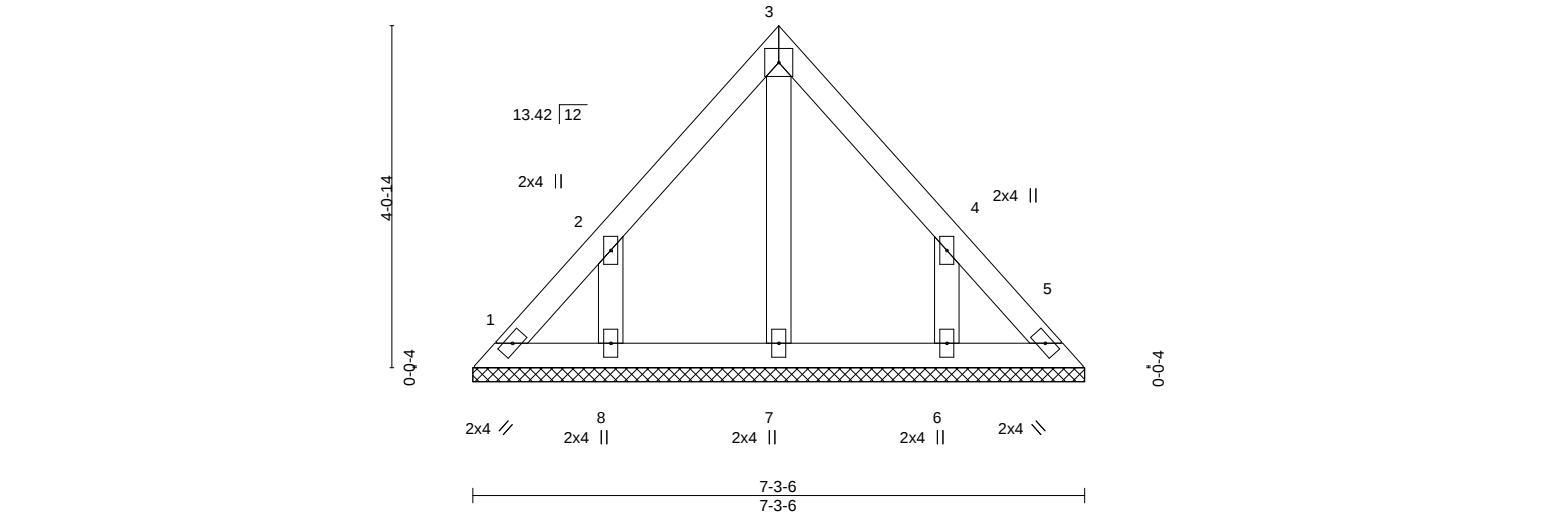
3-7-11

3-7-11

7-3-6

3-7-11

4x4 =



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 26 lb FT = 20%

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

REACTIONS. All bearings 7-3-6.
 (lb) - Max Horz 1=-100(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-153(LC 12), 6=-153(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=258(LC 19), 6=258(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-262/168, 4-6=-262/168

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-7-11, Exterior(2R) 3-7-11 to 6-7-11, Interior(1) 6-7-11 to 6-11-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=153, 6=153.
 - 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.



February 25, 2021

Job

2630561

Truss

LG6

Truss Type

GABLE

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

Lee's Summit, Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

Feb 14 2021 Missouri

ID:VPVqFnP0P0b1j2tZrOqezdKbx-3r08klzOXqAF6tZ33wuGiRzQNrcZUllzO?vY9zhb45

14965935

RELEASE FOR

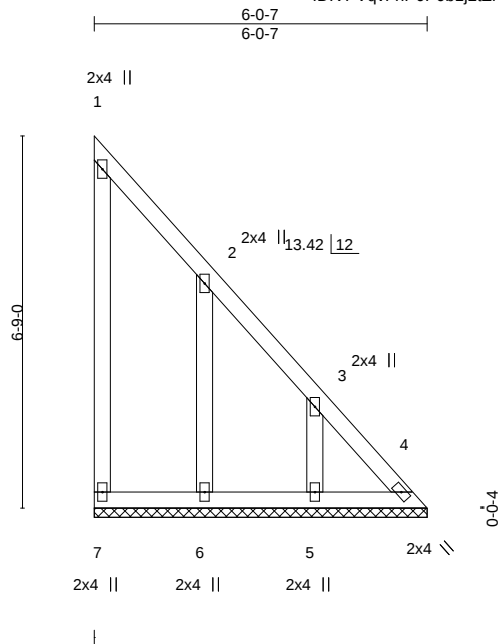
CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Scale = 1:41.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 30 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 6-0-7.
 (lb) - Max Horz 7=-247(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 7, 4 except 6=-151(LC 13), 5=-147(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=265(LC 20), 5=253(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-330/351, 3-4=-467/482
 BOT CHORD 6-7=-329/339, 5-6=-329/339, 4-5=-329/339
 WEBS 2-6=-269/174, 3-5=-258/167

NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 5-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4 except (jt=lb) 6=151, 5=147.
- 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.



February 25, 2021

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job

2630561

Truss

LG7

Truss Type

GABLE

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

Lee's Summit, Missouri

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

Feb 12 2021 10:55 AM

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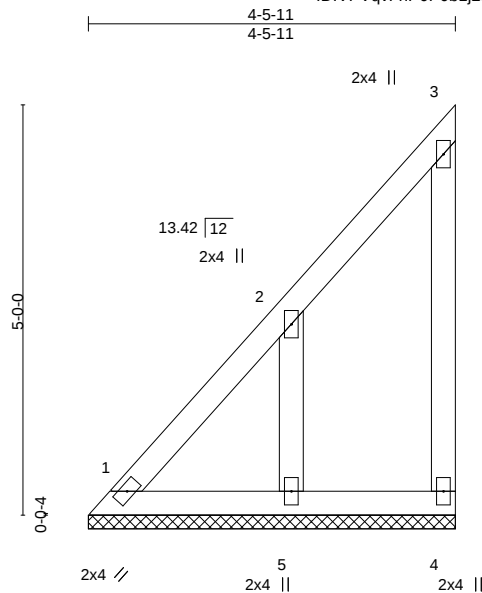
RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Scale = 1:28.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 20 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD 2x4 SPF No.2		TOP CHORD	Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals.
BOT CHORD 2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2			
OTHERS 2x4 SPF No.2			

REACTIONS. (size) 1=4-5-11, 4=4-5-11, 5=4-5-11
Max Horz 1=178(LC 9)
Max Uplift 1=-49(LC 8), 4=-63(LC 9), 5=-177(LC 12)
Max Grav 1=162(LC 20), 4=100(LC 19), 5=310(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-317/344
WEBS 2-5=-316/258

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Gable requires continuous bottom chord bearing.
 - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4 except (jt=lb) 5=177.
 - 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job

2630561

Truss

LG8

Truss Type

GABLE

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

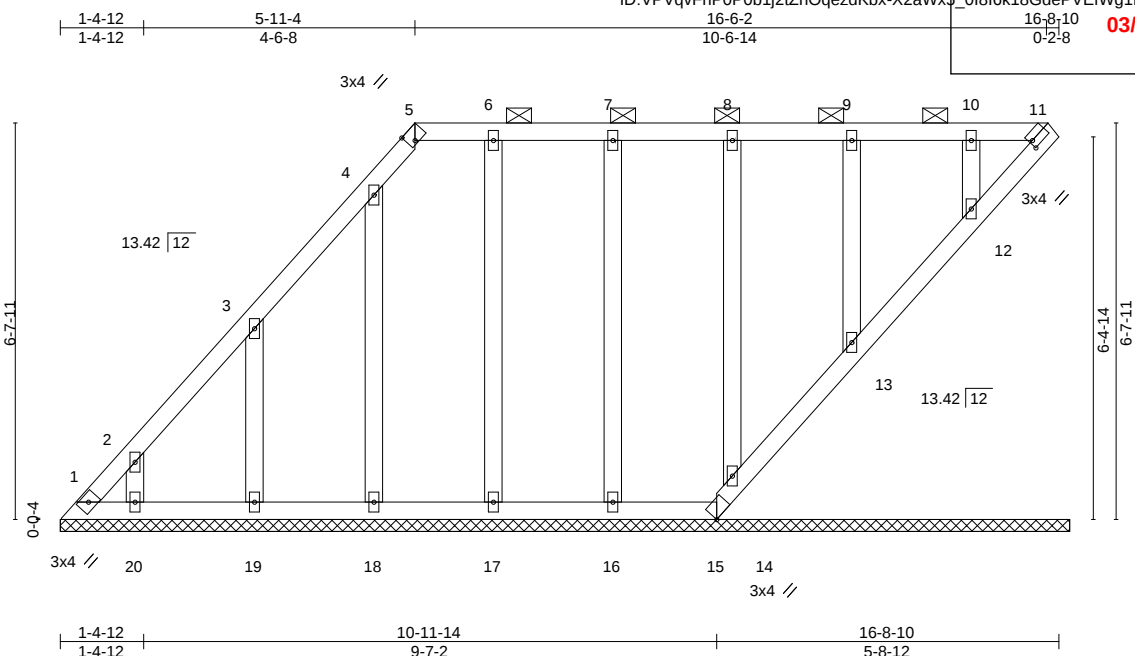
LEES SUMMIT, MISSOURI

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16-6-2 10-6-14 16-8-10 0-2-8

Job Reference (optional)

03/08/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	-0.00	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 81 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 5-11.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF No.2	

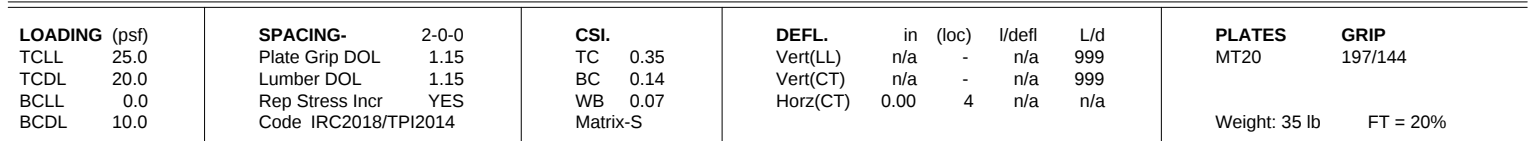
REACTIONS. All bearings 16-10-13.
(lb) - Max Horz 1=253(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 15, 12, 13, 14, 16, 17, 18 except 19=159(LC 12),
20=117(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 15, 12, 13, 14, 16, 17, 18, 20 except 19=263(LC 19)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-320/253

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-0, Interior(1) 3-3-0 to 5-11-4, Exterior(2R) 5-11-4 to 8-11-4, Interior(1) 8-11-4 to 16-4-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 15, 12, 13, 14, 16, 17, 18 except (jt=lb) 19=159, 20=117.
 - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 11, 12, 13, 14.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25,2021



REACTIONS. All bearings 10-2-4.
 (lb) - Max Horz 7=-163(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 5=-159(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=276(LC 1), 5=566(LC 26)

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 9-7-3 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
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 5=159.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Components**
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job

2630561

Truss

V2

Truss Type

Valley

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri

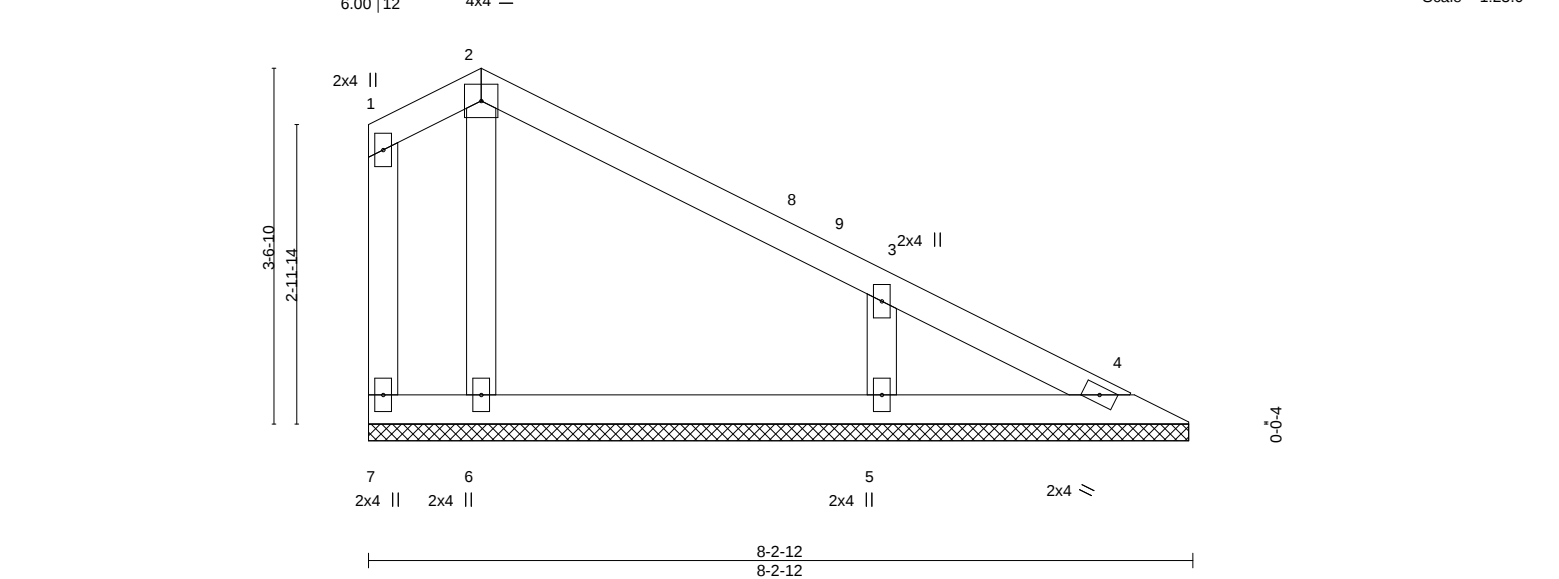
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-MBxnC83nt_2GSycP_vWvUwmgpg_xigTna_CmlFzhh4_

03/08/2021

Scale = 1:23.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.25	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 27 lb	FT = 20%

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

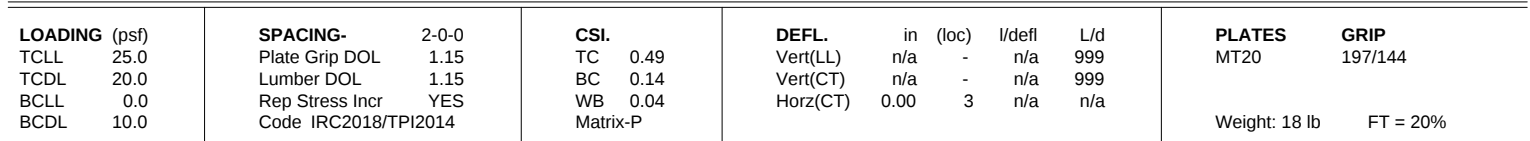
REACTIONS. All bearings 8-2-4.
 (lb) - Max Horz 7=121(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 7, 6 except 5=134(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 6=263(LC 1), 5=455(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 3-5=-381/281

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 7-7-3 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
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 6 except (jt=lb) 5=134.
 - 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.



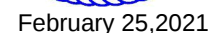
February 25,2021

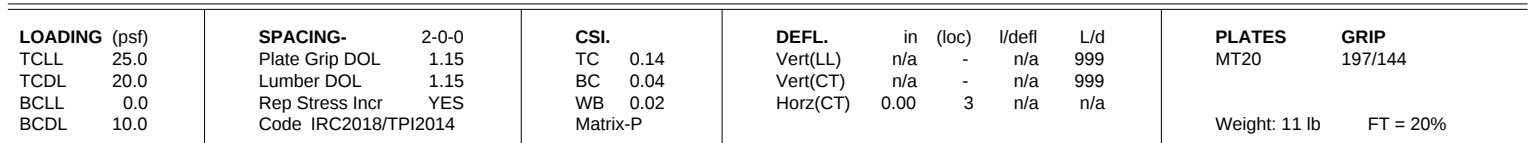


REACTIONS. (size) 5=6-2-4, 3=6-2-4, 4=6-2-4
 Max Horz 5=-79(LC 10)
 Max Uplift 5=-46(LC 3), 3=-41(LC 13), 4=-22(LC 13)
 Max Grav 5=15(LC 19), 3=237(LC 1), 4=352(LC 1)

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDFL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 1-1-8, Exterior(2R) 1-1-8 to 4-1-8, Interior(1) 4-1-8 to 5-7-3 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
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

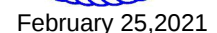




REACTIONS. (size) 5=4-2-4, 3=4-2-4, 4=4-2-4
 Max Horz 5=-38(LC 8)
 Max Uplift 5=-17(LC 12), 3=-24(LC 13), 4=-16(LC 13)
 Max Grav 5=42(LC 1), 3=131(LC 1), 4=207(LC 1)

NOTES-

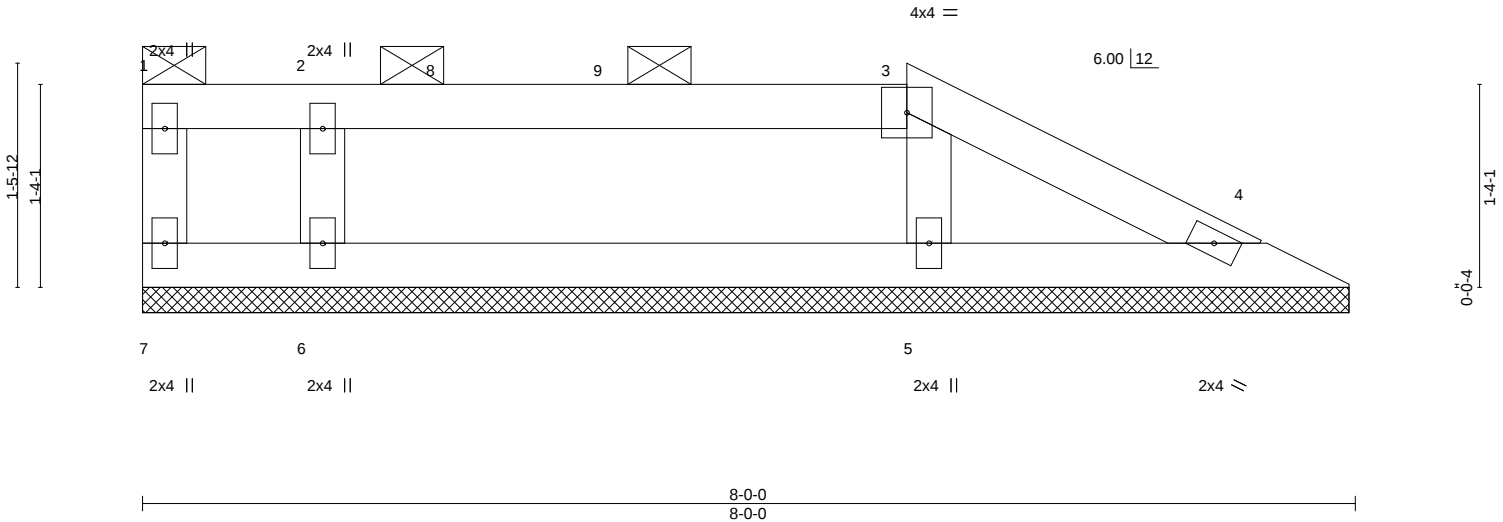
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left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



03/08/2021

Scale = 1:15.2

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	side Ridge/MO
2630561	V5	Valley	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, Missouri			
			Job Reference (optional)			
			ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-la3Ydg42PblzhGlo5JZNZLr0TTgPAa_41IhtL7zhb3y			
			5-0-8			
			5-0-8			
			8-0-0			
			2-11-8			



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 21 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 8-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-3.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS.

All bearings 7-11-8.
 (lb) - Max Horz 7=43(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 7, 4, 5, 6
 Max Grav All reactions 250 lb or less at joint(s) 7, 4 except 5=332(LC 1), 6=454(LC 1)

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

WEBS 3-5=-262/174, 2-6=-381/237

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-0-8, Exterior(2E) 5-0-8 to 7-4-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 4, 5, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

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

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job

2630561

Truss

V6

Truss Type

Valley

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. f14c6YOAht?pv16DGyQQtazhb3x

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-mmdwqA5gAvQqJQK

14-1-0

03/08/2021

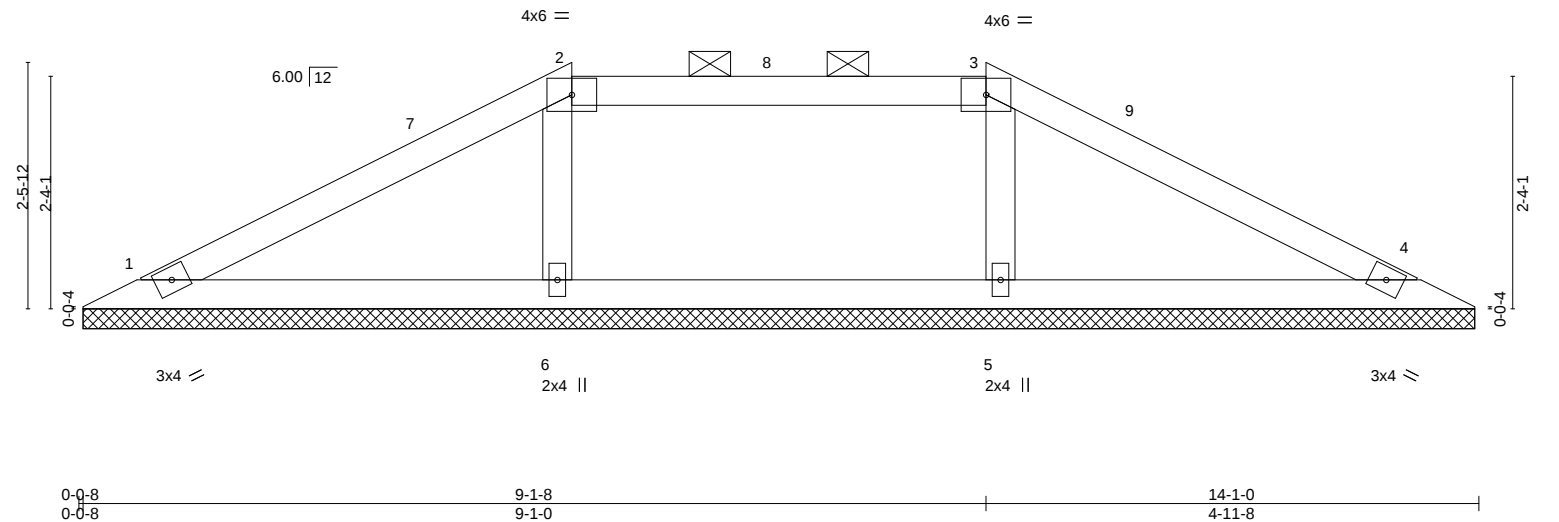
RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

14965943



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.30	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 36 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (6-0-0 max.): 2-3.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 14-0-0.
 (lb) - Max Horz 1=37(LC 16)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 4, 6, 5
 Max Grav All reactions 250 lb or less at joint(s) 1, 4 except 6=507(LC 25), 5=507(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-6=-398/161, 3-5=-398/159

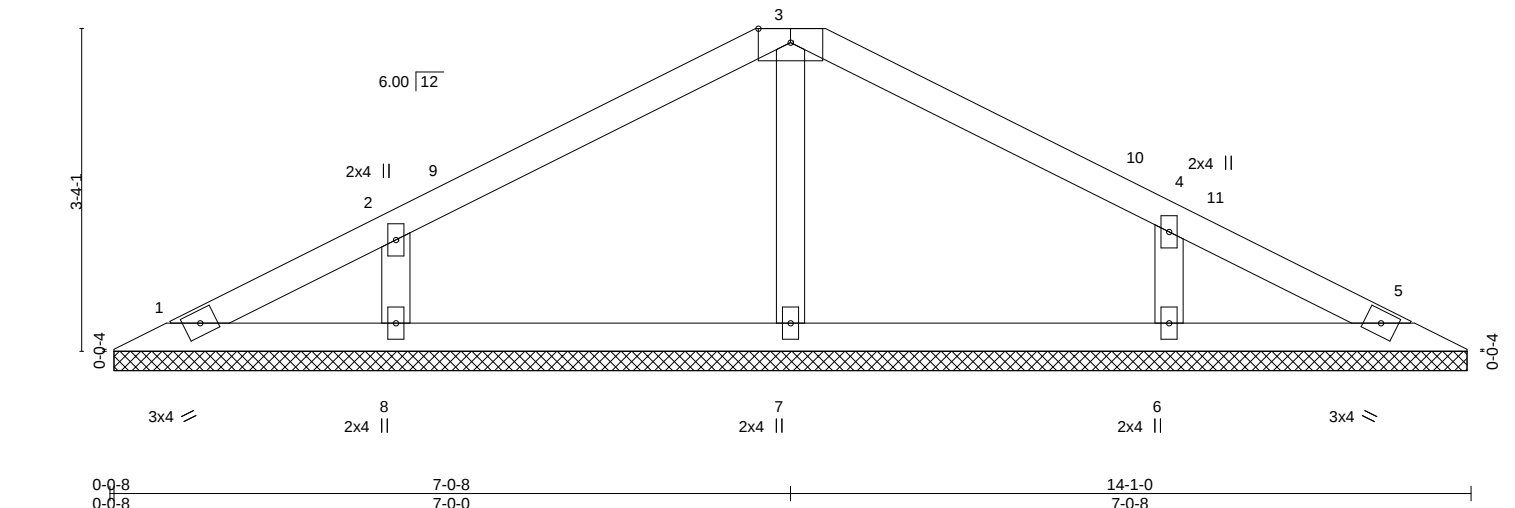
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-11-8, Exterior(2E) 4-11-8 to 13-5-7 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 3) Provide adequate drainage to prevent water ponding.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 6, 5.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

Job 2630561	Truss V7	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woods	Side Ridge/MO
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Feb 12 2021 MiTek Industries, Inc. Feb 14 2021 Missouri			
			Job Reference (optional)			
			ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-mmdwqA5gAvQqJQK_f14c6YOBxt0Hv10DGyQQtazhb3x			
			0-0-8 7-0-8 14-1-0 6-11-8			
			4x8 =			
			Scale: 1/2"=1'			

RELEASE FOR CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
03/08/2021



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 38 lb	FT = 20%

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

REACTIONS. All bearings 14-0-0.
 (lb) - Max Horz 1=-57(LC 17)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 8=-126(LC 12), 6=-123(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 8=432(LC 25), 6=423(LC 26), 7=387(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 2-8=-360/180, 4-6=-352/178, 3-7=-303/54

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 7-0-8, Exterior(2R) 7-0-8 to 11-3-7, Interior(1) 11-3-7 to 13-5-7 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) Gable requires continuous bottom chord bearing.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7 except (jt=lb) 8=126, 6=123.
 - 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job

2630561

Truss

V8

Truss Type

Valley

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965945

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-FzBI2W6lxDZhxavBDkbremwIBHJGeT4NVcA_Q0zhh3w

11-9-1

5-10-8

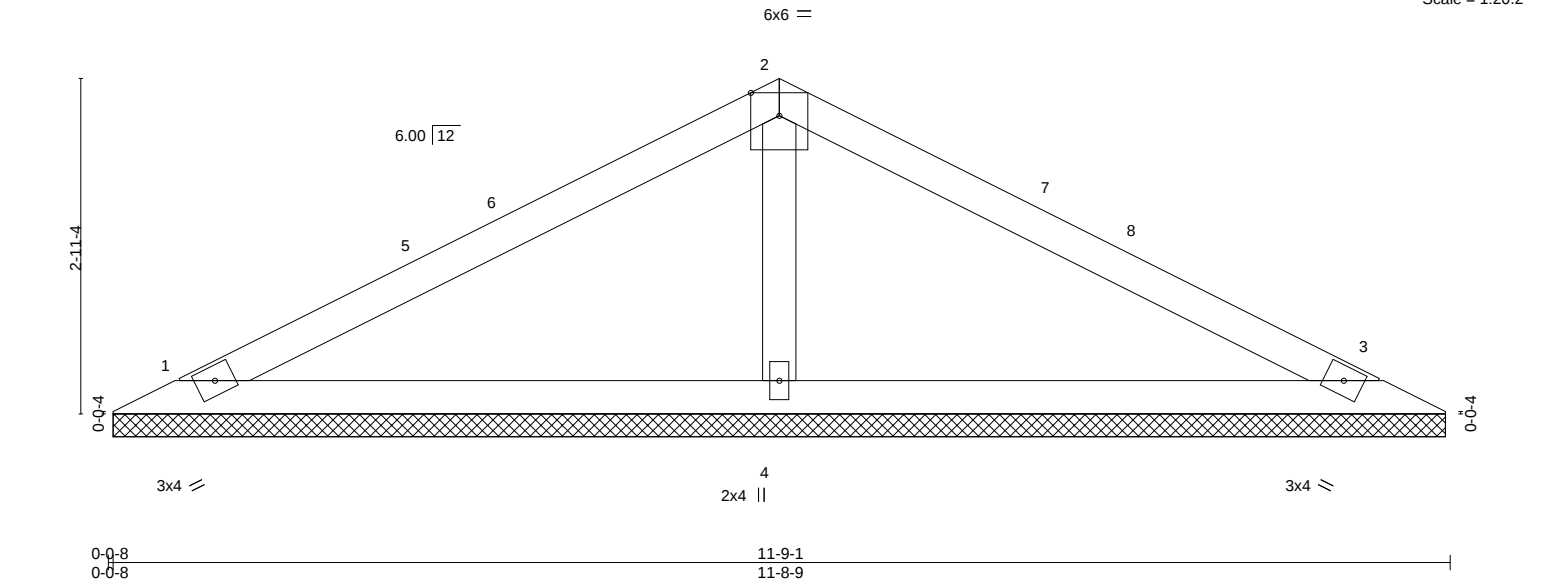
Lee's Summit, Missouri

03/08/2021

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

Scale = 1:20.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 29 lb	FT = 20%

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

REACTIONS. (size) 1=11-8-1, 3=11-8-1, 4=11-8-1
Max Horz 1=46(LC 16)
Max Uplift 1=-51(LC 12), 3=-60(LC 13), 4=-54(LC 12)
Max Grav 1=268(LC 25), 3=268(LC 26), 4=624(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-456/197

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-10-8, Exterior(2R) 5-10-8 to 8-10-8, Interior(1) 8-10-8 to 11-1-8 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
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



February 25, 2021

Job

2630561

Truss

V9

Truss Type

Valley

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, Missouri

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-j9kgFr6wWhYYjUNmS64BzTXjhwhNxxWkGvXySzhb3v

7-9-1

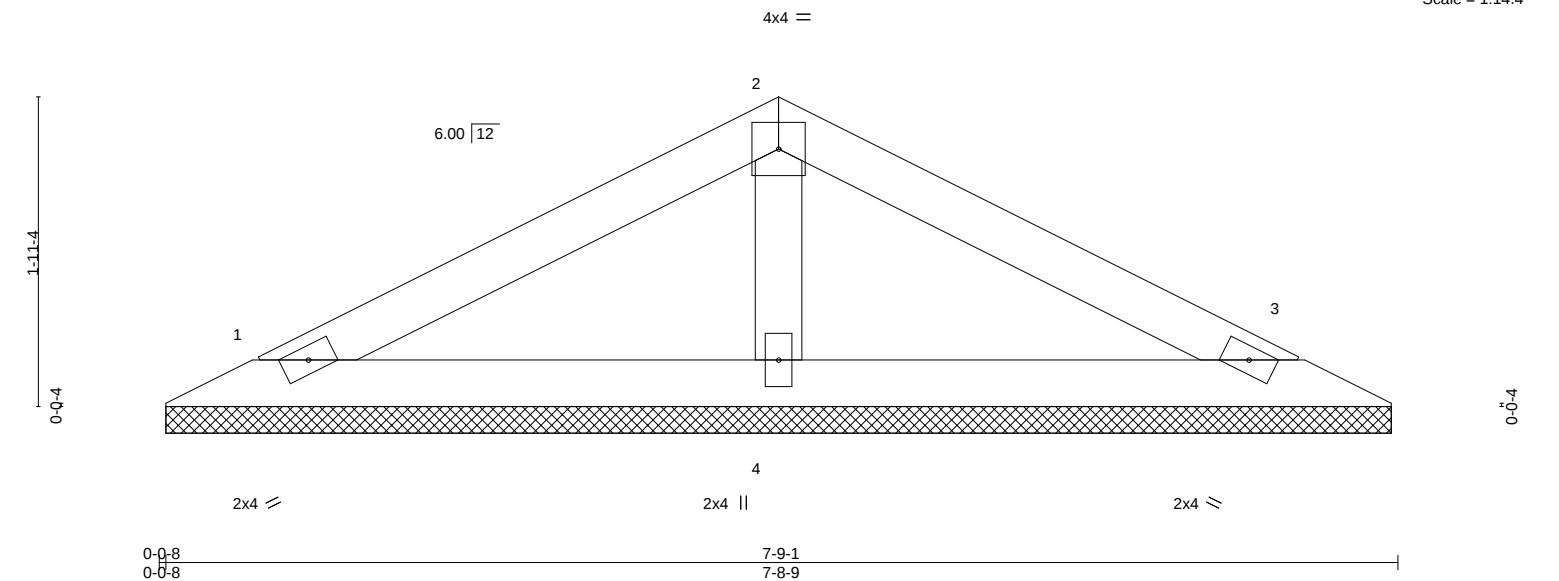
3-10-8

03/08/2021

Scale = 1:14.4

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	197/144
BCDL 20.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 19 lb	FT = 20%

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

REACTIONS. (size) 1=7-8-1, 3=7-8-1, 4=7-8-1
Max Horz 1=-29(LC 17)
Max Uplift 1=-38(LC 12), 3=-44(LC 13), 4=-20(LC 12)
Max Grav 1=184(LC 1), 3=184(LC 1), 4=346(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-264/154

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



February 25, 2021

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woods	Side Ridge/MO
2630561	V10	Valley	1	1		

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

8.430 s Feb 12 2021 MiTek Industries, Inc. 14965947

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-ydFfa60va3ghbVtrImzCsH8CySyPVJVLu0z6hwzhh41

03/08/2021

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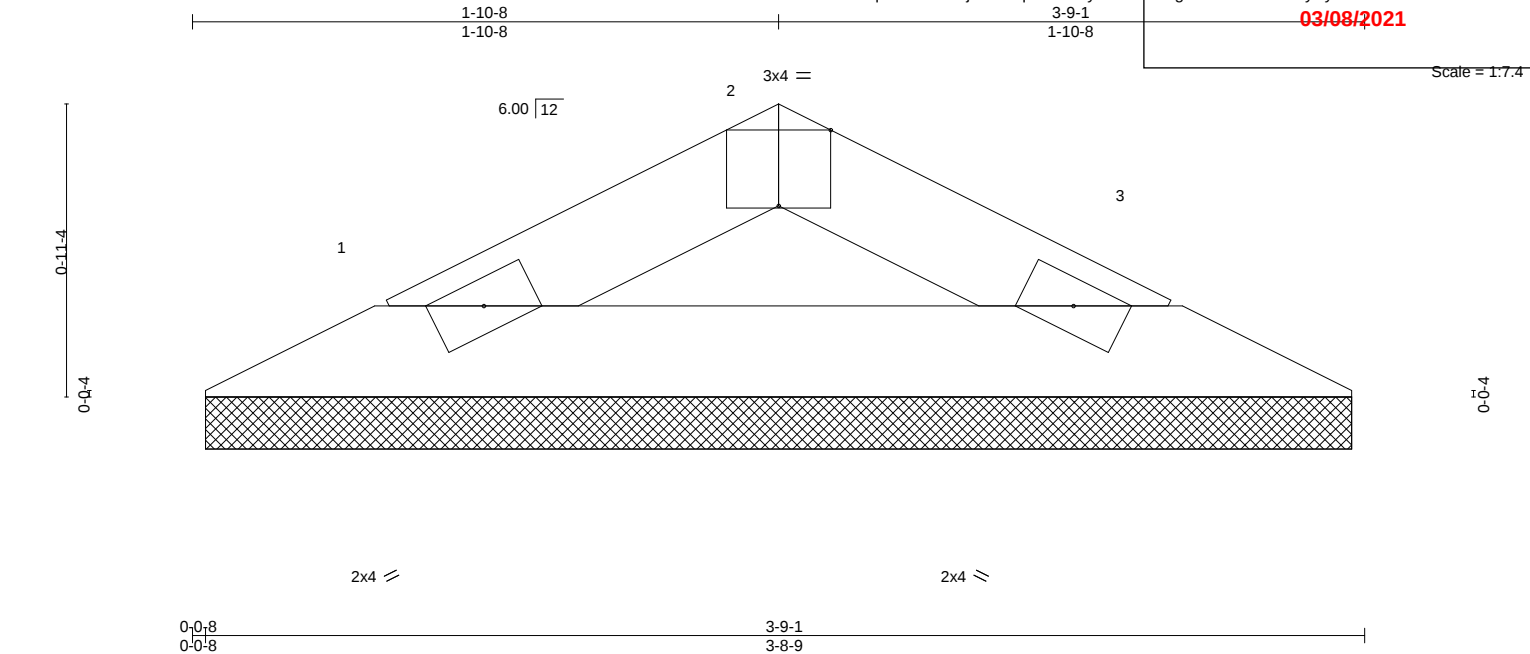


Plate Offsets (X,Y)-- [2:0-2:0,Edge]		[2:0-2:0,Edge]		[2:0-2:0,Edge]		[2:0-2:0,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a
TCDL 20.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-P				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 7 lb	FT = 20%		

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-9-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-8-1, 3=3-8-1
Max Horz 1=-11(LC 13)
Max Uplift 1=-19(LC 12), 3=-19(LC 13)
Max Grav 1=137(LC 1), 3=137(LC 1)

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

NOTES-

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



February 25, 2021

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job: 2630561

Truss: V11

Truss Type: Valley

Qty: 1

Ply: 1

Summit/39 Woodside Ridge/MO

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AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

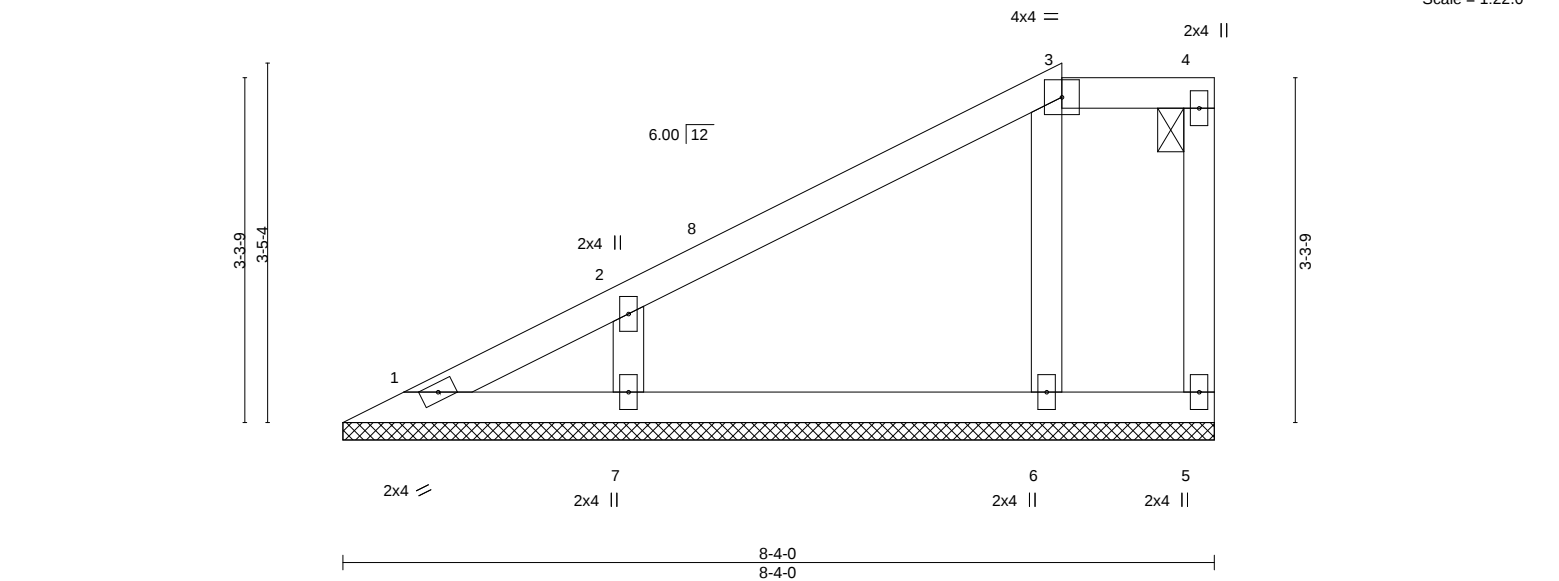
03/08/2021

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

8.430 s Feb 12 2021 MiTek Industries, Inc. See 14965948

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Scale = 1:22.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 26 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	

REACTIONS. All bearings 8-4-0.

(lb) - Max Horz 1=124(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 5, 6 except 7=-135(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=286(LC 1), 7=457(LC 1)

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

WEBS 2-7=-385/254

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 6-10-8, Exterior(2E) 6-10-8 to 8-2-4 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) Provide adequate drainage to prevent water ponding.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 6 except (jt=lb) 7=135.
 - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25,2021

Job

2630561

Truss

V12

Truss Type

Valley

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

LE'S SUMMIT MISSOURI

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc.

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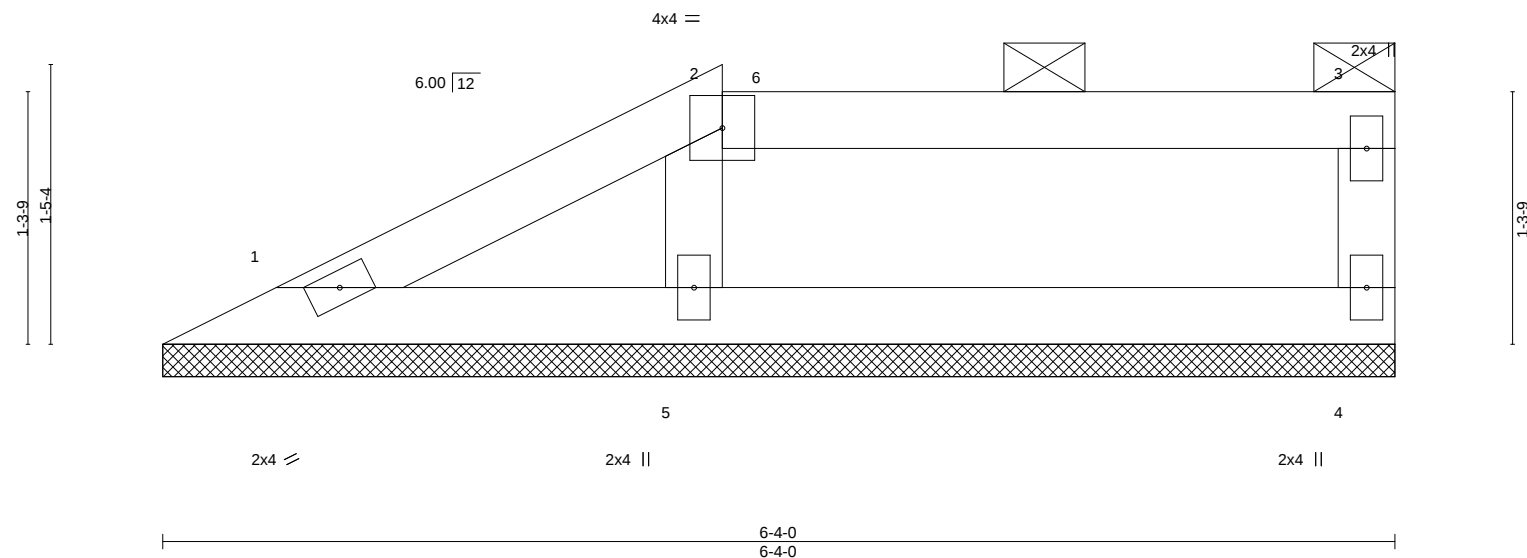
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DEVELOPMENT SERVICES

03/08/2021

Scale = 1:11.8



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	-0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 16 lb	FT = 20%

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

REACTIONS. (size) 1=6-4-0, 4=6-4-0, 5=6-4-0
Max Horz 1=41(LC 9)
Max Uplift 1=-19(LC 12), 4=-36(LC 8), 5=-46(LC 9)
Max Grav 1=95(LC 1), 4=177(LC 1), 5=341(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-271/186

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - Gable requires continuous bottom chord bearing.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



February 25, 2021

Job

2630561

Truss

V13

Truss Type

VALLEY

Qty

1

Ply

1

Summit/39 Woods

side Ridge/MO

Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Lee's Summit, MO 64086-1111

ID:VPVqvFnP0P0b1j2tZrLOqezdKbx-u?NP?o296gwPqo1DQB?gxiDKGeYzDTelKSDlpzhb4?

RELEASE FOR CONSTRUCTION

AS NOTED ON PLANS REVIEW

DEVELOPMENT SERVICES

03/08/2021

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

3-10-0

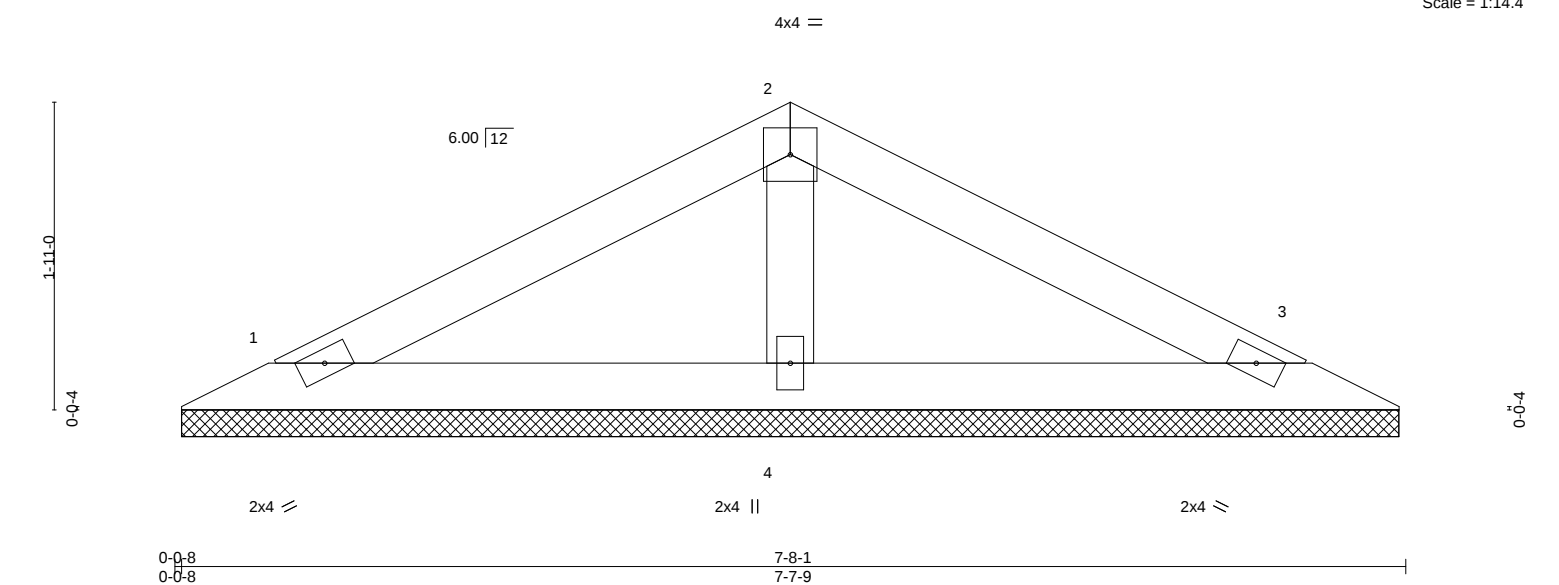
3-10-0

7-8-1

3-10-1

4x4 =

Scale = 1:14.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	197/144
BCDL 20.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 18 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

OTHERS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS. (size) 1=7-7-1, 3=7-7-1, 4=7-7-1

Max Horz 1=28(LC 16)

Max Uplift 1=-38(LC 12), 3=-43(LC 13), 4=-20(LC 12)

Max Grav 1=182(LC 1), 3=182(LC 1), 4=341(LC 1)

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

WEBS 2-4=-261/153

NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCCL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

5) Non Standard bearing condition. Review required.

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



February 25, 2021

Symbols

RELEASE FOR
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DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI



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- 3/16" from outside edge of truss.

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

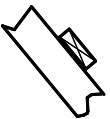
* Plate location details available in **MiTek 20120** software or upon request.

PLATE SIZE

4 X 4

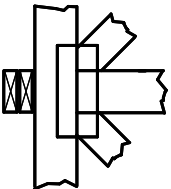
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



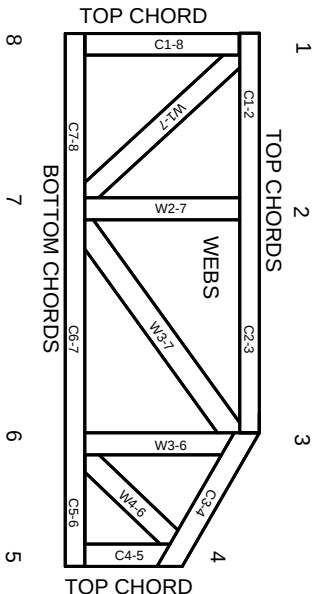
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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