



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



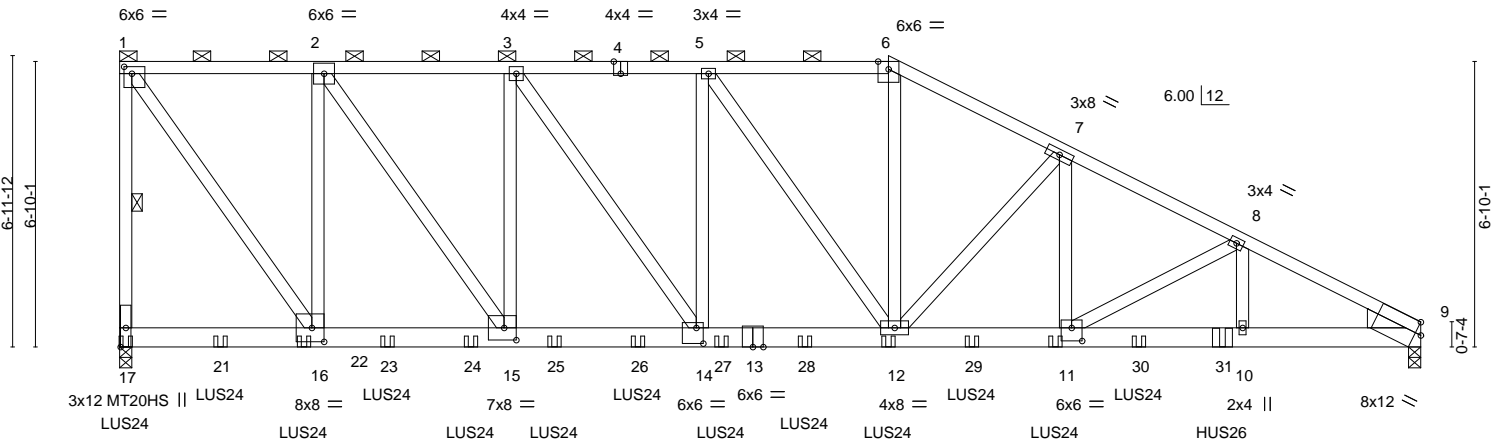
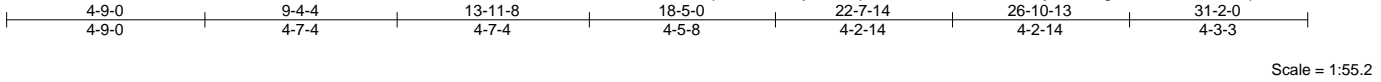
February 25, 2021

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	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965863
2630561	A1	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. Thu Feb 25 13:02:12 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-3mvRTV8kYxcvyRN?5egKx69I7RFYdXXkKpXI95zhb59



	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

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.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.18 12-14	>999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.64	Vert(CT)	-0.40 12-14	>936	180
BCLL 0.0	Rep Stress Incr	NO	WB 0.91	Horz(CT)	0.07 9	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS				
				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-

- 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 1225 lb uplift at joint 17 and 1086 lb uplift at joint 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.
- 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



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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 Woodside Ridge/MO	I44965863
2630561	A1	Half Hip Girder	1	2	Job Reference (optional)	

- 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)

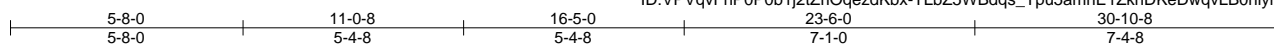
Job 2630561	Truss A2	Truss Type Half Hip	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965864
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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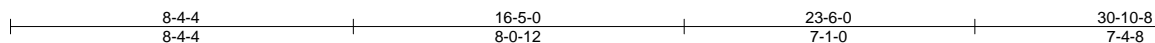
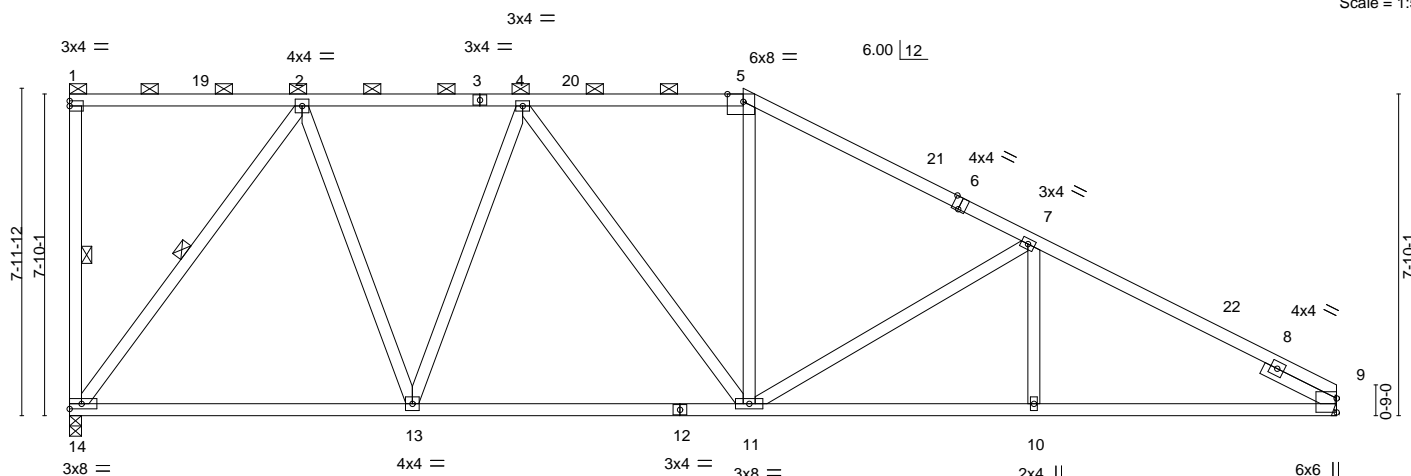


Plate Offsets (X,Y)--		[5:0-4-10,Edge], [6:0-2-0,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.12 13-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.26 10-11	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.10 9	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 143 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (4-1-6 max.): 1-5.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 1-14, 2-14

REACTIONS.

(size) 14=0-3-8, 9=Mechanical
Max Horz 14=-307(LC 10)
Max Uplift 14=-298(LC 8), 9=-218(LC 13)
Max Grav 14=1690(LC 1), 9=1690(LC 1)

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

TOP CHORD 2-4=-1350/275, 4-5=-1752/333, 5-7=-2101/332, 7-9=-2765/361
BOT CHORD 13-14=-117/1042, 11-13=-148/1596, 10-11=-236/2368, 9-10=-236/2368
WEBS 2-14=-1733/327, 2-13=-93/917, 4-13=-733/183, 4-11=-99/295, 5-11=-6/387, 7-11=-713/263

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 16-5-0, Exterior(2R) 16-5-0 to 20-7-15, Interior(1) 20-7-15 to 30-10-8 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 298 lb uplift at joint 14 and 218 lb uplift at joint 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.
- 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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WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

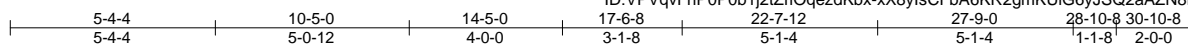
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



Scale = 1:60.2

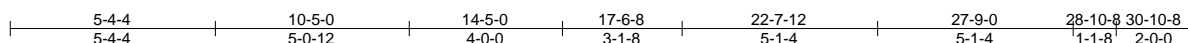
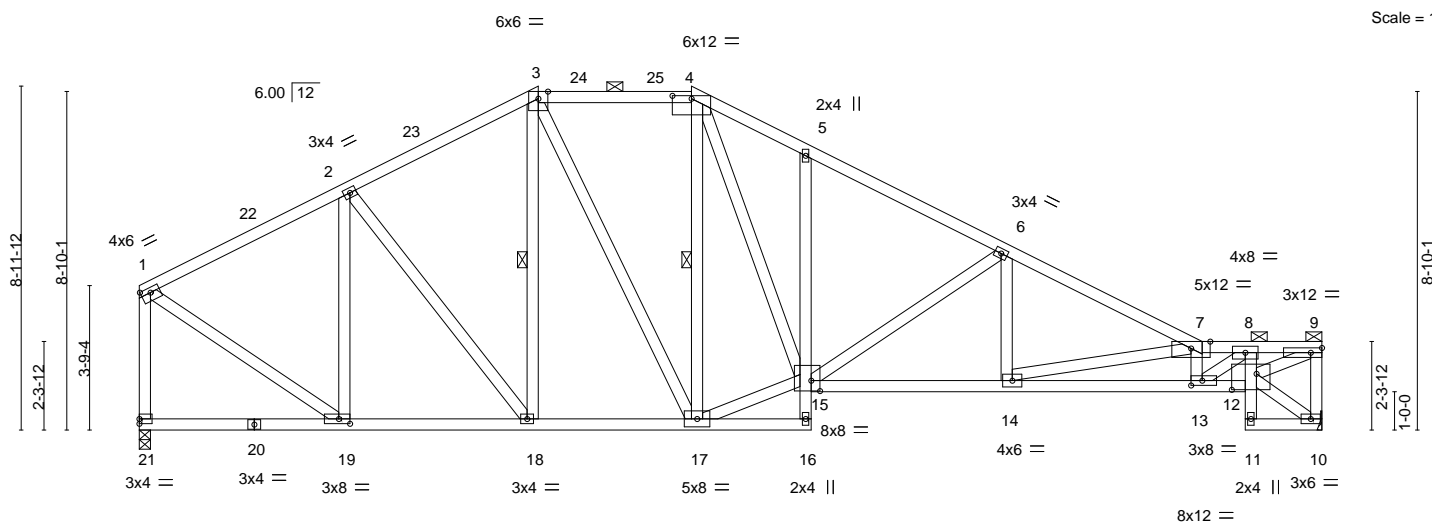


Plate Offsets (X,Y)-- [1:0-3,0,0-1-8], [4:0-6,0,0-0-15], [12:0-7-12,0-5-0], [13:0-3-8,0-1-8], [15:0-2-12,0-3-4], [19:0-3-8,0-1-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.16 13-14 >999 240	MT20	197/144
TCDL	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*		
	12-15: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 3-18, 4-17

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=-146/266, 2-3=-1611/341, 3-4=-1506/355, 4-5=-2327/469, 5-6=-2426/413,
6-7=-3301/466, 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=-1464/264, 7-13=-1438/253,
8-13=-198/1374, 9-12=-480/3272, 1-19=-206/1437

NOTES-

- 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) 0-1-12 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
- 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 235 lb uplift at joint 10 and 183 lb uplift at joint 21.
- 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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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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



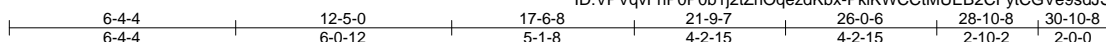
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965866
2630561	A4	Roof Special	3	1	Job Reference (optional)	

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

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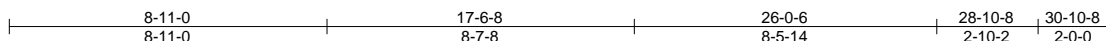
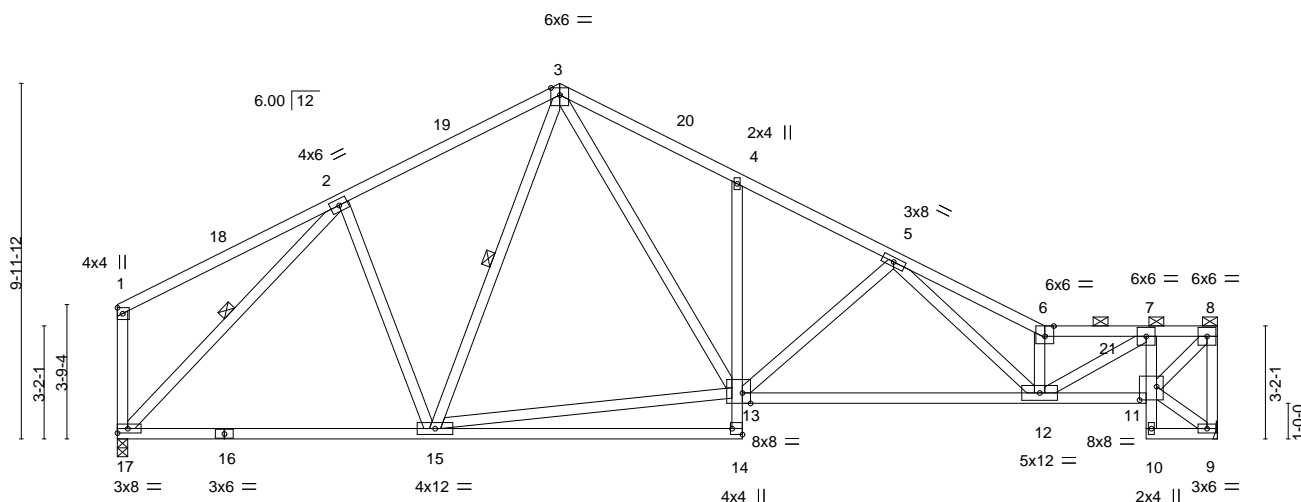


Plate Offsets (X,Y)-- [6:0-3-0,Edge], [11:0-5-12,0-4-8], [13:0-2-12,Edge], [14:Edge,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	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-

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 (2-10-5 max.): 6-8.
BOT CHORD Rigid ceiling directly applied.
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-

- 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 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 248 lb uplift at joint 9 and 199 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.



February 25, 2021

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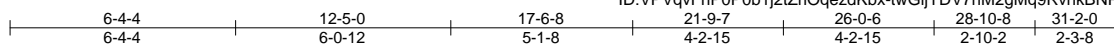
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Chesterfield, MO 63017



Scale = 1:64.9

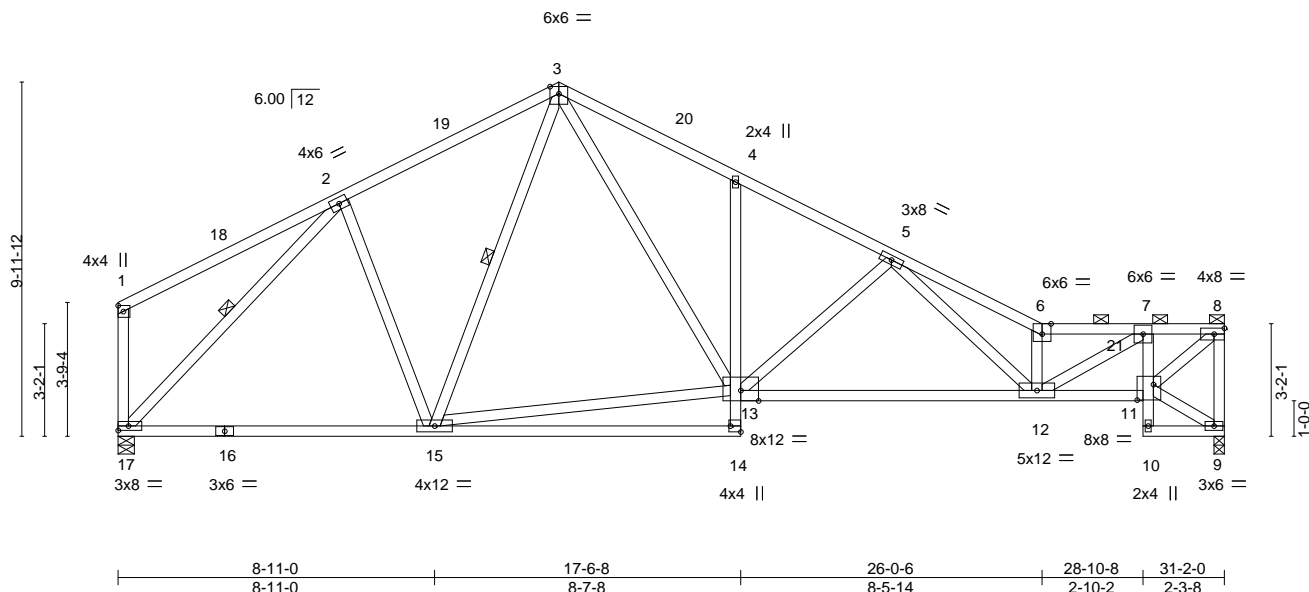


Plate Offsets (X,Y)-- [6:0-3-0,Edge], [11:0-5-8,0-5-4], [14:Edge,0-3-8]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.18 12-13 >999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.49 12-13 >749	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.17 9 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 165 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 (2-9-1 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=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=-2217/362,
7-12=-267/2248, 8-11=-378/2397, 2-17=-1829/253

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=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
- 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 252 lb uplift at joint 9 and 200 lb uplift at joint 17.
- 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 and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

WARNING: Velly design parameters are listed in the following table and included with the key reference to AISC M14-15 (16), 3/15/2020 by ONE 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/TPI 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 Woodside Ridge/MO	I44965868
2630561	A6	Roof Special	3	1	Job Reference (optional)	

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

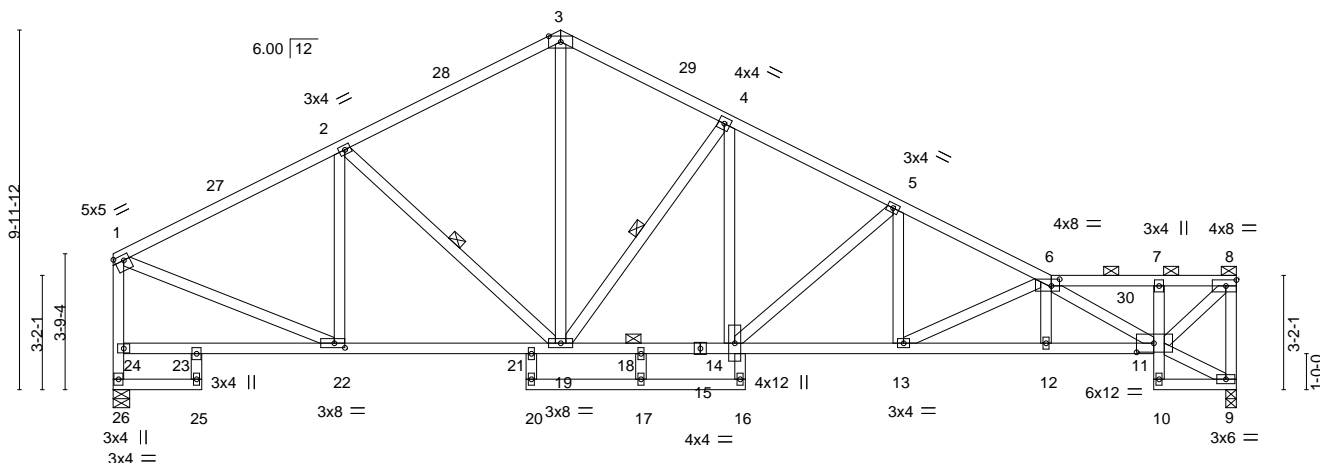
8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:20 2021 Page 1

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

4x8 =

Scale: 3/16"=1'



2-5-8	6-11-8	11-5-8	12-5-0	14-6-0	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	2-1-0	2-7-4	0-5-4	4-2-15	4-2-15	2-10-2	2-3-8

Plate Offsets (X,Y)-- [1:Edge,0-1-12], [6:0-2-12,0-2-4], [11:0-5-12,0-3-0], [22:0-3-8,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	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.



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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



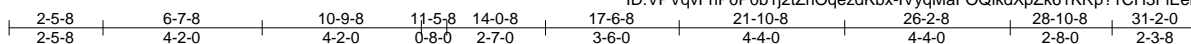
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965869
2630561	A7	Roof Special	1	1	Job Reference (optional)	

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

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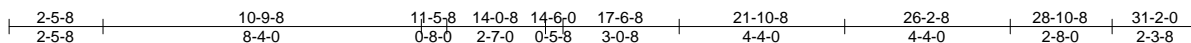
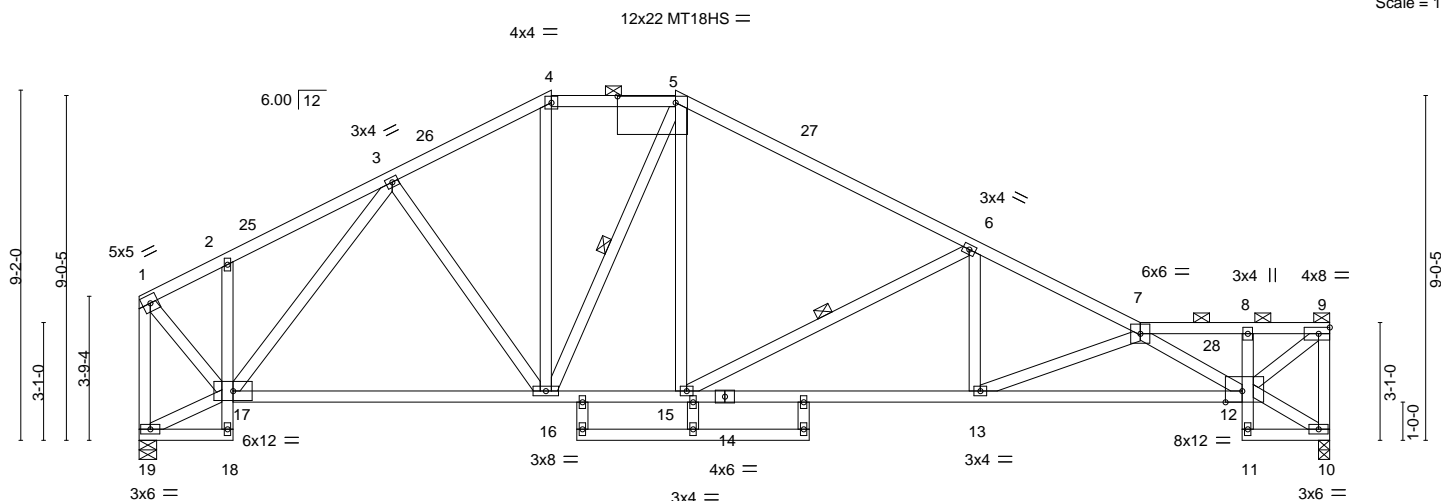


Plate Offsets (X,Y)-- [5:1-6-4,0-2-0], [12:0-5-4,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.97	Vert(LL)	-0.15 13-15	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.37 13-15	>990	180	MT18HS	197/144
BCLL 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-

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 (4-2-2 max.): 4-5, 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-16, 6-15

REACTIONS.

(size) 10=0-3-8, 19=0-5-8
Max Horz 19=205(LC 8)
Max Uplift 10=244(LC 13), 19=187(LC 12)
Max Grav 10=1698(LC 1), 19=1698(LC 1)

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

TOP CHORD 1-2=-1117/231, 2-3=-1199/291, 3-4=-1803/378, 4-5=-1531/370, 5-6=-2079/387,
6-7=-3259/467, 7-8=-1837/241, 8-9=-1736/233, 9-10=-1638/246, 1-19=-1682/270
BOT CHORD 2-17=-322/142, 16-17=-283/1517, 15-16=-245/1705, 13-15=-436/2898, 12-13=-573/3789,
8-12=-252/86
WEBS 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-

- 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 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
- 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) 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 244 lb uplift at joint 10 and 187 lb uplift at joint 19.
- 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.



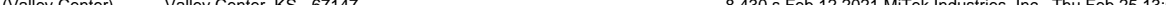
February 25, 2021

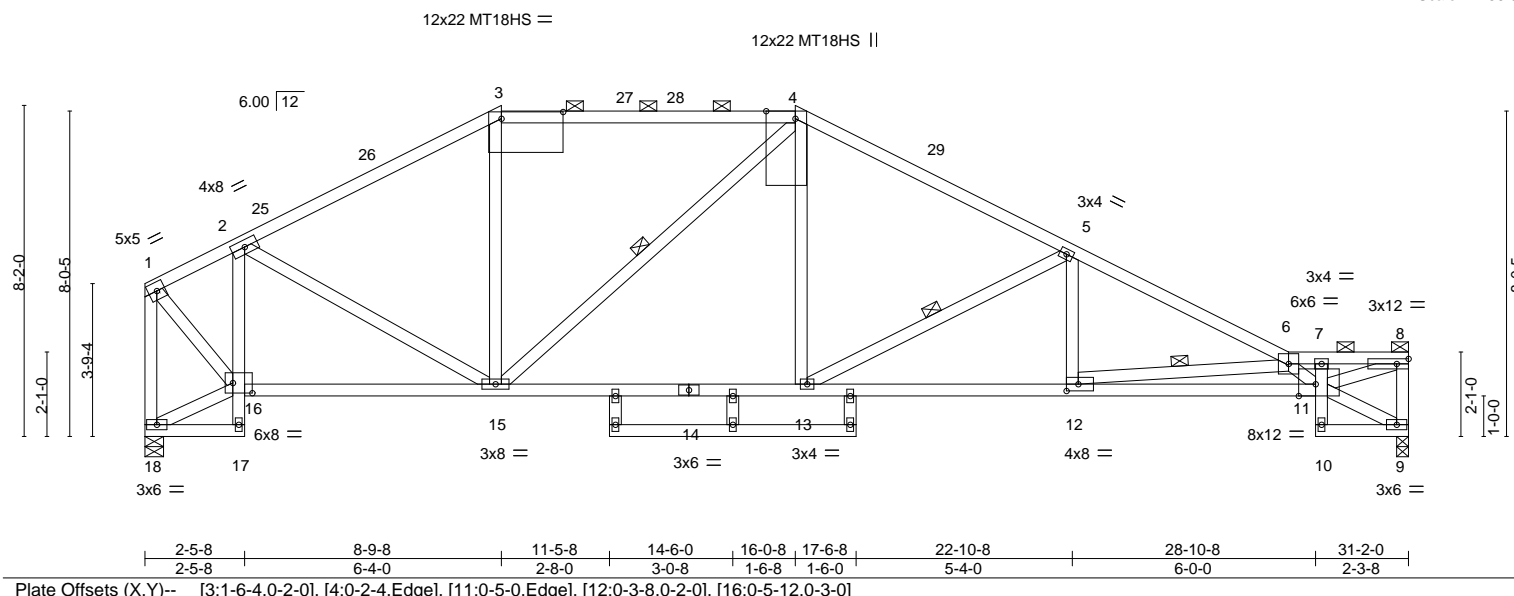
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:23 2021 Page 1
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 Scale = 1:56



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 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 sheathing 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.



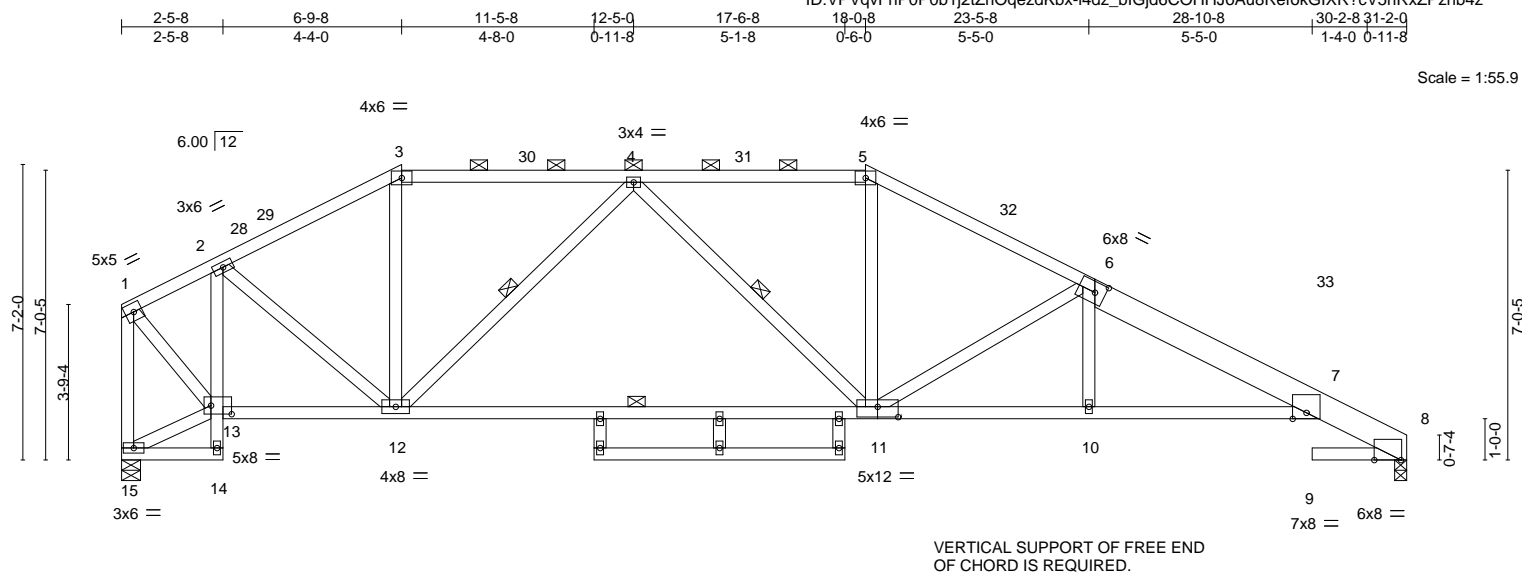
February 25, 2021



WARNING - Velly design parameters and READ NOTES ON THIS AND INCLUDED WITHIN KEY EXERCISE 1 AGE MH-475 (Rev. 3/19/2020) 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



	2-5-8	6-9-8	11-5-8	14-6-0	17-6-8	18-0-8	23-5-8	28-10-8	31-2-0
	2-5-8	4-4-0	4-8-0	3-0-8	3-0-8	0-6-0	5-5-0	5-5-0	2-3-8
Plate Offsets (X,Y)--	[6:0-3-0,0-3-0], [8:0-7-12,0-0-0], [11:0-6-0,0-3-0], [13:0-6-0,0-2-8]								
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 0.70	Vert(LL) -0.40	11-12	>938	240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15		BC 0.89	Vert(CT) -0.90	11-12	>410	180		
BCLL 0.0	Rep Stress Incr YES		WB 0.71	Horz(CT) 0.26	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 162 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 6-8: 2x8 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-4-15 max.): 3-5.
BOT CHORD	2x4 SPF No.2 *Except* 11-13,7-11: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied. Except: 10-0-0 oc bracing: 11-12
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 4-12, 4-11

REACTIONS. (size) 8=0-3-8, 15=0-5-8
 Max Horz 15=-186(LC 10)
 Max Uplift 8=-209(LC 13), 15=-145(LC 12)
 Max Gray 8=1701(LC 1), 15=1699(LC 1)

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

TOP CHORD 1-2=-1115/206, 2-3=-1840/303, 3-4=-1573/308, 4-5=-2263/391, 5-6=-2677/407,
6-7=-3514/483, 7-8=-712/121, 1-15=-1642/226

BOT CHORD 2-13=-1091/206, 12-13=-125/989, 11-12=-213/2209, 10-11=-351/3236, 7-10=-351/3230

WEBS 2-12=-120/793, 3-12=-10/389, 1-13=-168/1450, 5-11=-43/690, 4-12=-958/215,
6-11=-1089/289

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) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 6-9-8, Exterior(2R) 6-9-8 to 9-9-8, Interior(1) 9-9-8 to 18-0-8, Exterior(2R) 18-0-8 to 21-0-8, Interior(1) 21-0-8 to 31-0-5 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 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) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 209 lb uplift at joint 8 and 145 lb uplift at joint 15.
- 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.
- 11) 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 MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss A10	Truss Type Hip Girder	Qty 1	Ply 2	Summit/39 Woodside Ridge/MO 144965872
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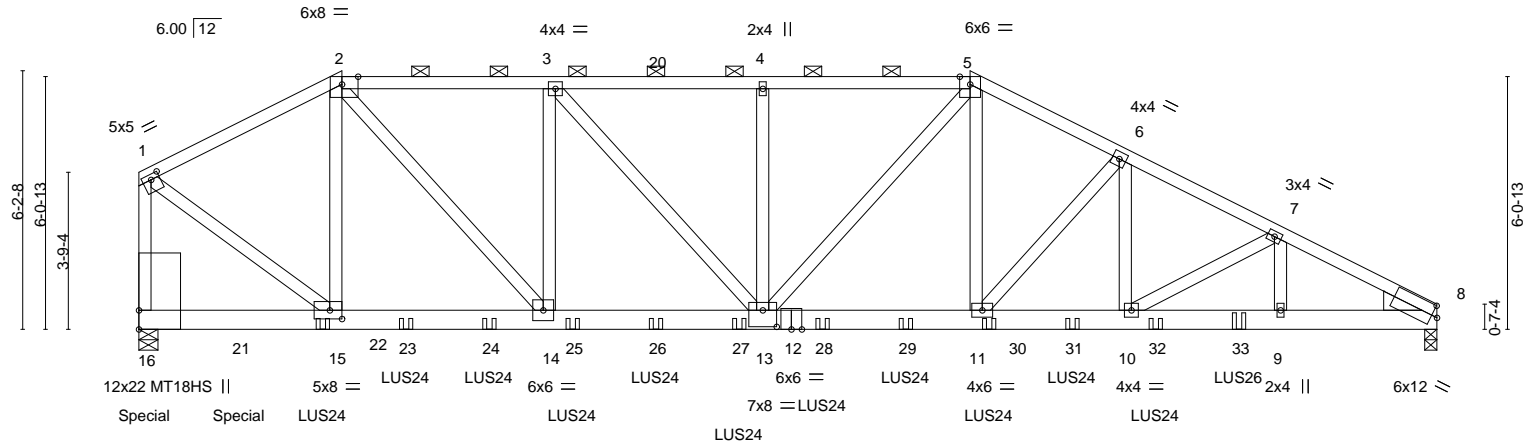
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:13 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-XyTpgr9NIFkmaayBeMBZUJhuqqWJM2QuZTGshXzhhb58

4-10-8	9-10-4	14-11-12	19-11-8	23-8-4	27-4-15	31-2-0
4-10-8	4-11-12	5-1-8	4-11-12	3-8-12	3-8-12	3-9-1

Scale = 1:55.3



4-10-8	9-10-4	14-11-12	19-11-8	23-8-4	27-4-15	31-2-0
4-10-8	4-11-12	5-1-8	4-11-12	3-8-12	3-8-12	3-9-1

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-	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)	-0.18 11-13	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.99	Vert(CT)	-0.39 11-13	>958	180	MT18HS	197/144
BCLL 0.0	Rep Stress Incr	NO	WB 0.67	Horz(CT)	0.08 8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 359 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	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 2x6 SPF No.2 *Except* 8-12: 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	
WEDGE	
Right: 2x6 SP No.2	

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

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 Woodside Ridge/MO	I44965872
2630561	A10	Hip Girder	1	2	Job Reference (optional)	

- NOTES-**
- 11) 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.
 - 12) 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.
 - 13) 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.
 - 14) Fill all nail holes where hanger is in contact with lumber.
 - 15) 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

1) 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)

Job 2630561	Truss B1	Truss Type Common	Qty 2	Ply 1	Summit/39 Woodside Ridge/MO 144965873
Job Reference (optional)					

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

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0-10-8 8-0-3 16-0-0 23-11-13 32-0-0
0-10-8 8-0-3 7-11-13 7-11-13 8-0-3

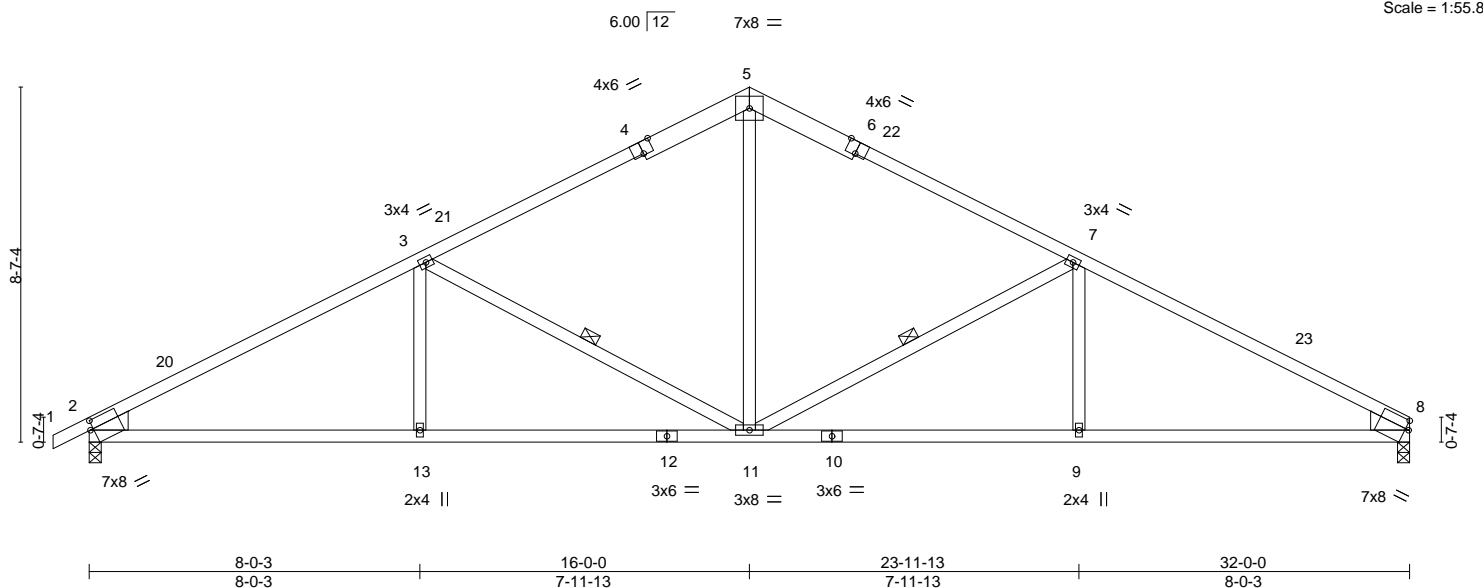


Plate Offsets (X,Y)--		[2:0-0-15,0-2-10], [4:0-3-0,Edge], [6:0-3-0,Edge], [8:Edge,0-2-10]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.12 11-13	>999	240
TCDL	20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.33 11-13	>999	180
BCLL	0.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.12 8	n/a	n/a
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS					
						PLATES	GRIP		
						MT20	197/144		
						Weight: 124 lb		FT = 20%	

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
1-4,6-8: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
WEDGE
Left: 2x6 SPF No.2 , Right: 2x6 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 7-11, 3-11

REACTIONS.

(size) 2=0-3-8, 8=0-3-8
Max Horz 2=155(LC 12)
Max Uplift 2=-258(LC 12), 8=-237(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=-3008/397, 3-5=-2145/363, 5-7=-2145/365, 7-8=-3013/399
BOT CHORD 2-13=-395/2555, 11-13=-395/2555, 9-11=-262/2561, 8-9=-262/2561
WEBS 5-11=-98/1003, 7-11=-937/292, 7-9=0/302, 3-11=-930/289, 3-13=0/301

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 16-0-0, Exterior(2R) 16-0-0 to 19-0-0, Interior(1) 19-0-0 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) 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 258 lb uplift at joint 2 and 237 lb uplift at joint 8.
- 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	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965874
2630561	B2	Hip	1	1		

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

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ID:VPVqvFnP0P0b1j2tZrIQezdKbx-eSljPHJWFFMwdaRhvbwcW3k6S4?lv0toY?w2eHzhb4x

0-10-8 7-4-5 14-8-4 17-3-12 24-7-11 32-0-0
0-10-8 7-4-5 7-3-15 2-7-8 7-3-15 7-4-5

Scale = 1:56.9

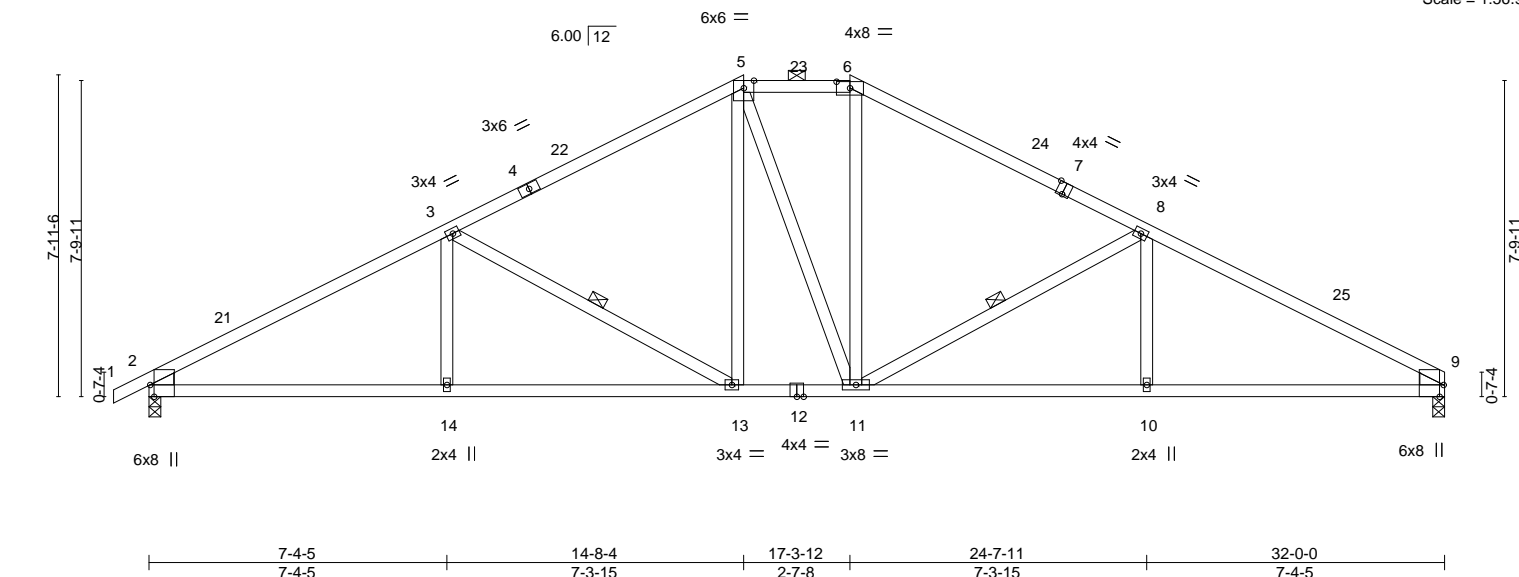


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [6:0-4-0,0-1-15], [7:0-2-0,Edge], [9:0-3-8,Edge]	
LOADING (psf)	SPACING	CSI	DEFL.
TCLL 25.0	2-0-0	TC 0.81	in (loc) l/defl L/d
TCDL 20.0	Plate Grip DOL 1.15	BC 0.81	Vert(LL) -0.14 13-14 >999 240
BCLL 0.0	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.35 13-14 >999 180
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.13 9 n/a n/a
	Code IRC2018/TPI2014		
		PLATES	GRIP
		MT20	197/144
		Weight: 132 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 (3-9-7 max.): 5-6.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEDGE	WEBS 1 Row at midpt 3-13, 8-11
Left: 2x4 SPF No.2, Right: 2x4 SPF No.2	

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

- 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 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
 - 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 260 lb uplift at joint 2 and 240 lb uplift at joint 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.
 - 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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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 Woodside Ridge/MO	144965875
2630561	B3	Hip	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:27 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-6fJ6cdK9?YUmFk0tIRr2GHGNUJNePvynfbAjb4w

-0-10-8	6-4-5	12-8-4	19-3-12	25-7-11	32-0-0
0-10-8	6-4-5	6-3-15	6-7-8	6-3-15	6-4-5

Scale = 1:55.3

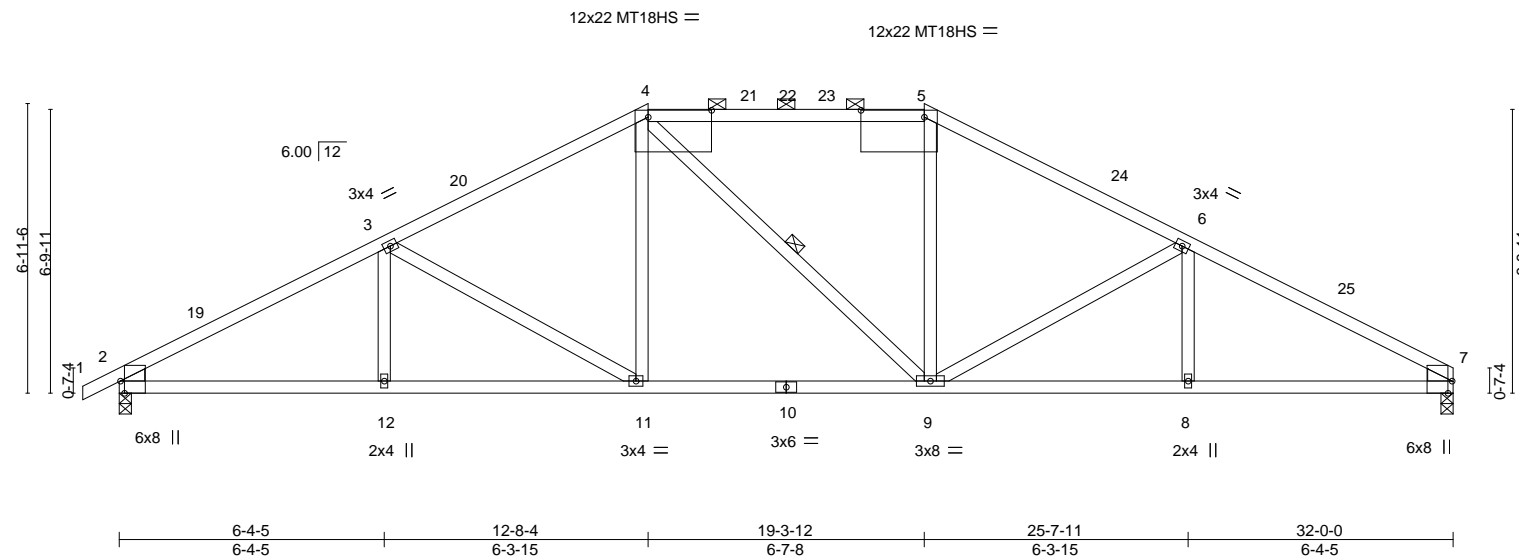


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:1-6-4,0-2-0], [5:1-6-4,0-2-0], [7:0-3-8,Edge]			
LOADING (psf)		SPACING-	2-0-0	CSI.	DEFL. in (loc) l/defl L/d
TCLL 25.0		Plate Grip DOL	1.15	TC 0.87	Vert(LL) -0.14 11-12 >999 240
TCDL 20.0		Lumber DOL	1.15	BC 0.88	Vert(CT) -0.32 11-12 >999 180
BCLL 0.0		Rep Stress Incr	YES	WB 0.54	Horz(CT) 0.13 7 n/a n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS	
				PLATES	
				MT20 197/144	
				MT18HS 197/144	
				Weight: 127 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 (2-2-0 max.): 4-5.
WEBS 2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied.
WEDGE		WEBS	1 Row at midpt 4-9
Left: 2x4 SPF No.2 , Right: 2x4 SPF No.2			

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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965876
2630561	B4	Hip	1	1		

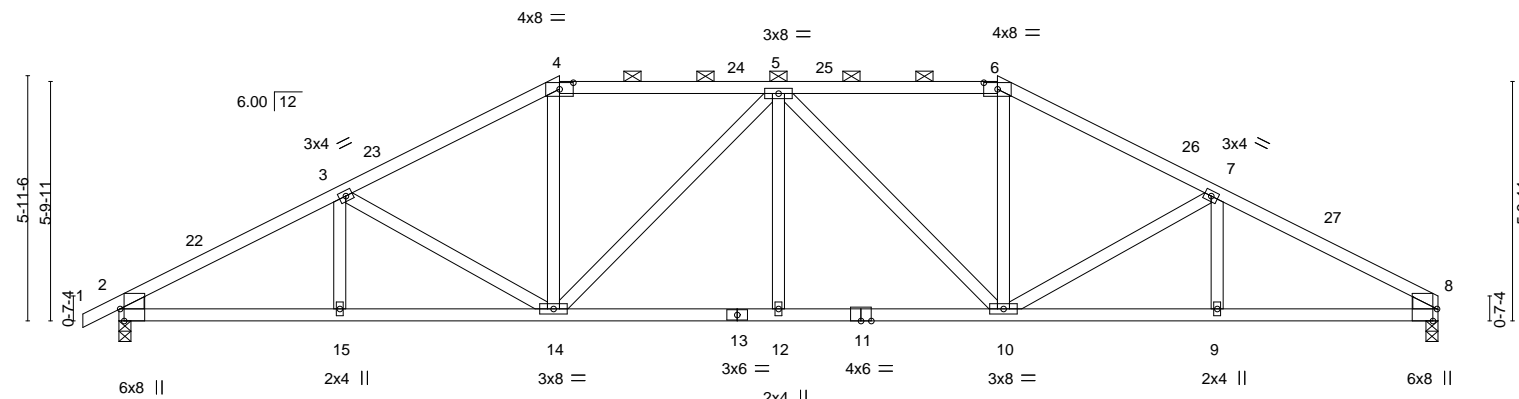
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:28 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-brtUqzLnmsddtub41?y4bUpV8tgDnrG50IP8iAzhb4v

-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

Scale = 1:55.9



	5-4-5	10-8-4	16-0-0	21-3-12	26-7-11	32-0-0
	5-4-5	5-3-15	5-3-12	5-3-12	5-3-15	5-4-5

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:0-4-0,0-1-15], [6:0-4-0,0-1-15], [8:0-3-8,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 0.61	Vert(LL)	-0.15	12	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.32	10-12	>999	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.60	Horz(CT)	0.13	8	n/a	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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss B5	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965877
Job Reference (optional)					

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:29 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-31Rs1JMPXAIUU2AGajUJ8hMdPH_M6FbFEy8iEczhb4u

-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

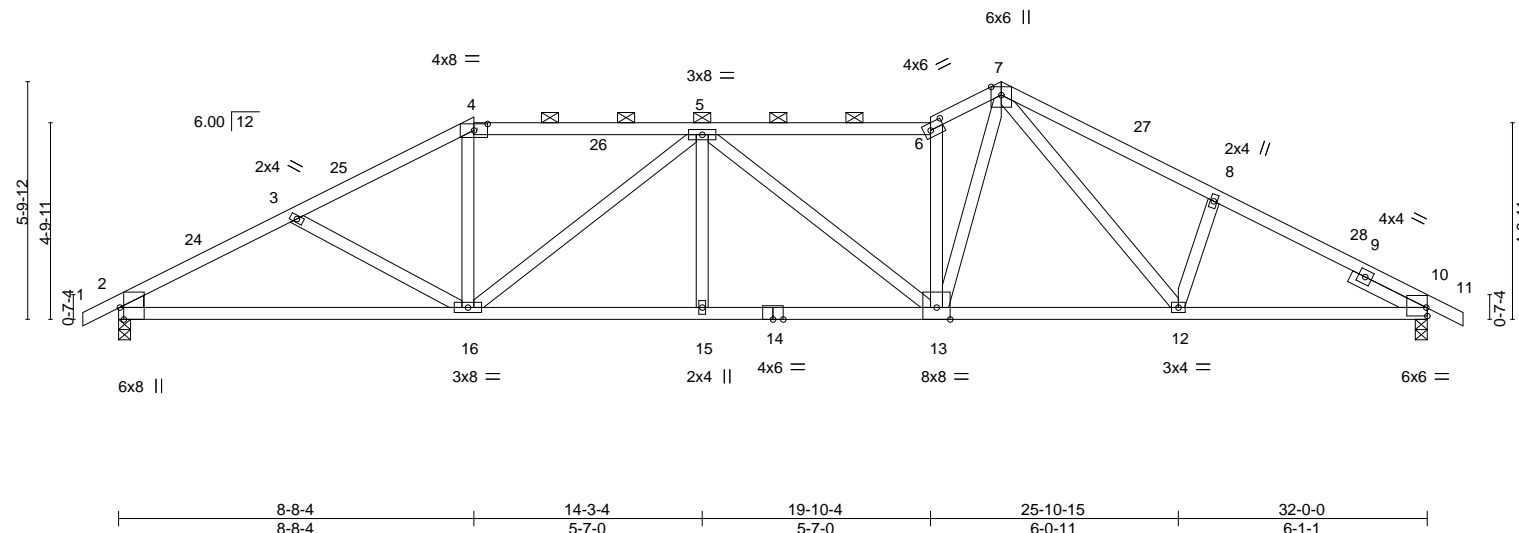


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-4-0,0-1-15], [6:0-4-0,0-2-0], [10:Edge,0-2-8]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	L/defl	L/d
TCLL 25.0		Plate Grip DOL	1.15	TC	0.77	Vert(LL)	-0.19 15	>999	240
TCDL 20.0		Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.42 13-15	>909	180
BCLL 0.0		Rep Stress Incr	YES	WB	0.79	Horz(CT)	0.14 10	n/a	n/a
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS					
								PLATES	GRIP
								MT20	197/144
								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-**
- 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 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
 - 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 308 lb uplift at joint 2 and 211 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

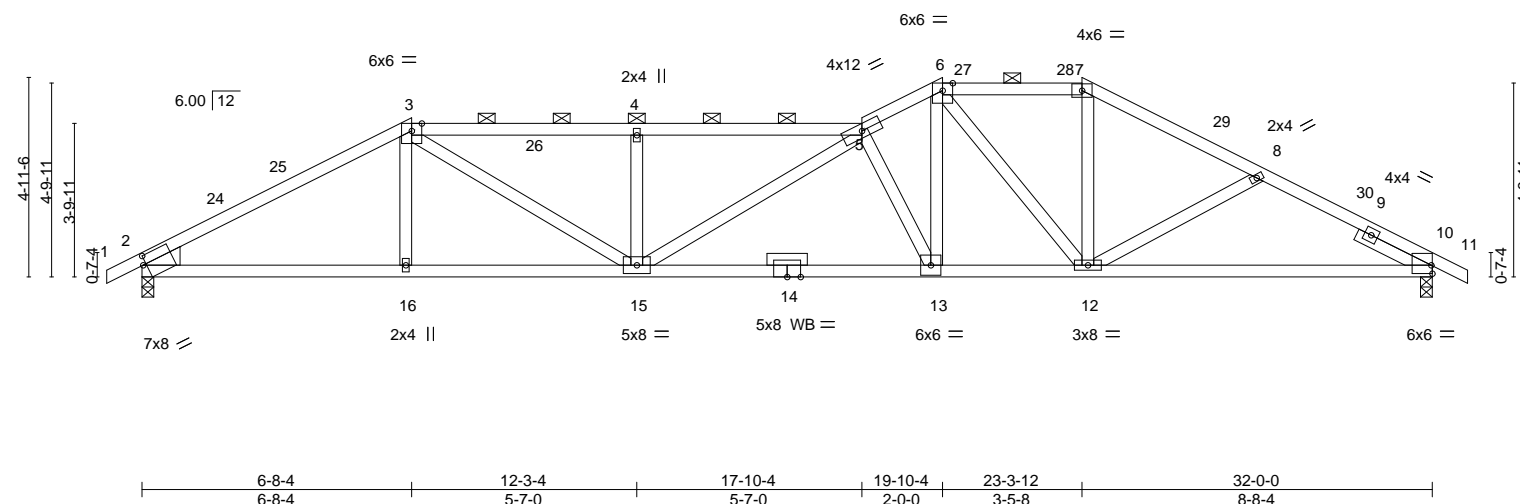
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:31 2021 Page 1
 ID:VPVqvFnP0P0b1jtZrI0qezdKbx-?QYcS?Nf3n?CkLkfi8WnD6RzK5fgaCX7iGdpJvzhb4s
 -0-10-8 6-8-4 12-3-4 17-10-4 19-10-4 23-3-12 27-7-11 32-0-0 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
 Scale = 1:57.



LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-2-0 max.): 3-5, 6-7. Rigid ceiling directly applied.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	
OTHERS	2x4 SPF No.2		
WEDGE			
Left: 2x6 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=-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=-2477/1450, 4-15=-629/196, 5-13=-1984/393, 6-13=-3077/1877, 6-12=-852/163, 7-12=-89/751		

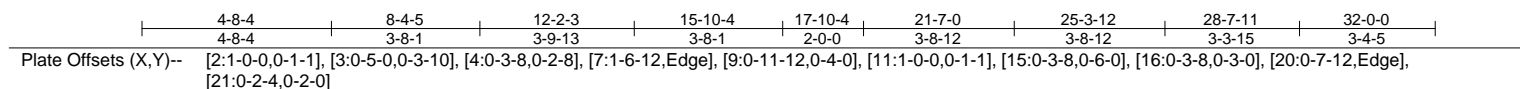
NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; 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 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 gipr 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

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:32 2021 Page 1
 ID:VPVqvFnP0P0bjt2IzrIQeqzdKbx-Tc6?KOHq573LVvrGr10IK_4bV1iJZ?hwxNMrxzhb4r
 -0-10-8 4-8-4 8-4-5 12-2-3 15-10-4 17-10-4 21-7-0 25-3-12 28-7-10 32-0-0 37-10-8
 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
 Scale = 1:57.



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%

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

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.

(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)

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

- 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; 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



February 25, 2021



WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 167, § 9.5.2020 by ONE USE.
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965879
2630561	B7	ROOF SPECIAL GIRDER	1	1	Job Reference (optional)	

- 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 Woodside Ridge/MO I44965880
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:33 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrOqezdKbx-xpgNtgPvbOFwzT1pZYFIXWNTuU424jq9a6vNNzhb4q

0-10-8 6-2-15 12-9-0
0-10-8 6-2-15 6-6-1

Scale = 1:39.2

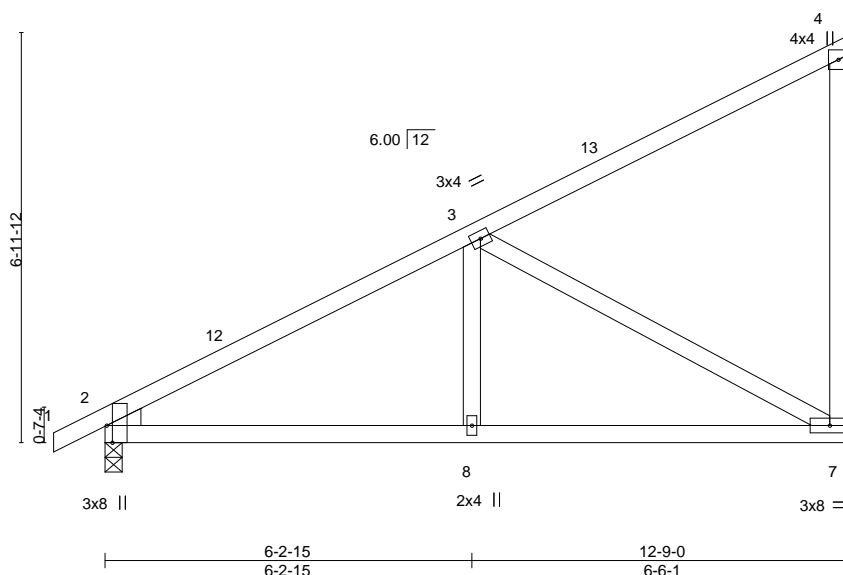


Plate Offsets (X,Y)-- [2:0-3-8,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.51	Vert(LL)	-0.04	7-8 >999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.07	7-8 >999	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.01	7 n/a	n/a
BCDL 10.0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

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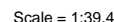
16023 Swingley Ridge Rd
Chesterfield, MO 63017

144965881

Job Reference (optional)

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ID:VPVayFnP0P0b1j2tZrIOgezdkbx-P?EI40QYMiNnbp2ENG3Ugl3X?InfnbH OEStwpzhp4p



Rigid ceiling directly applied



Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965882
2630561	C3	Jack-Closed	3	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:35 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-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

Scale = 1:39.4

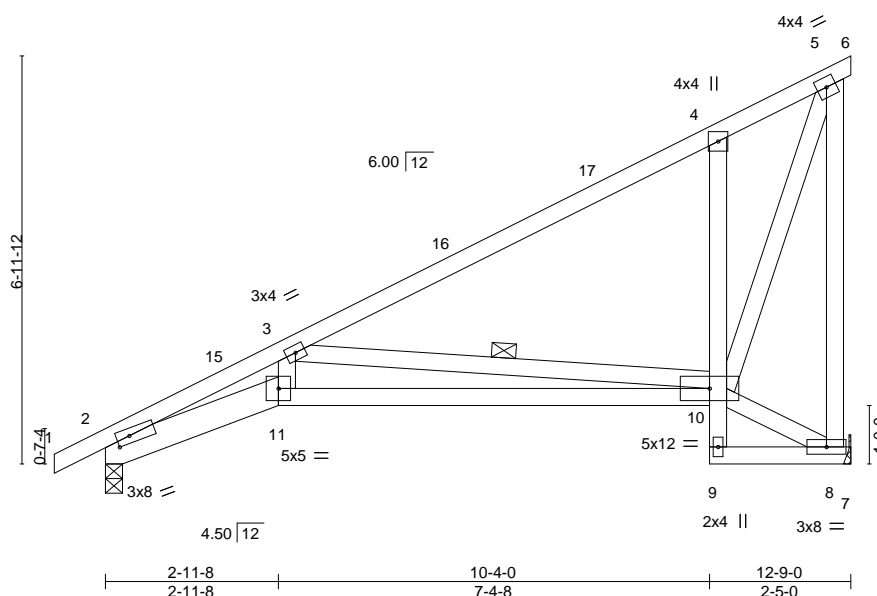


Plate Offsets (X,Y)--		[2:0-2-11,0-1-8]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.11 10-11 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.28 10-11 >528 180		
BCLL	0.0	Rep Stress Incr	YES	WB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

LUMBER-

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

BRACING-

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965883
2630561	C4	Jack-Closed	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:36 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-MOMVViRouJdVq7CcVh6ywA8nC6QpFT9GrYLa_izhb4n

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

Scale = 1:41.0

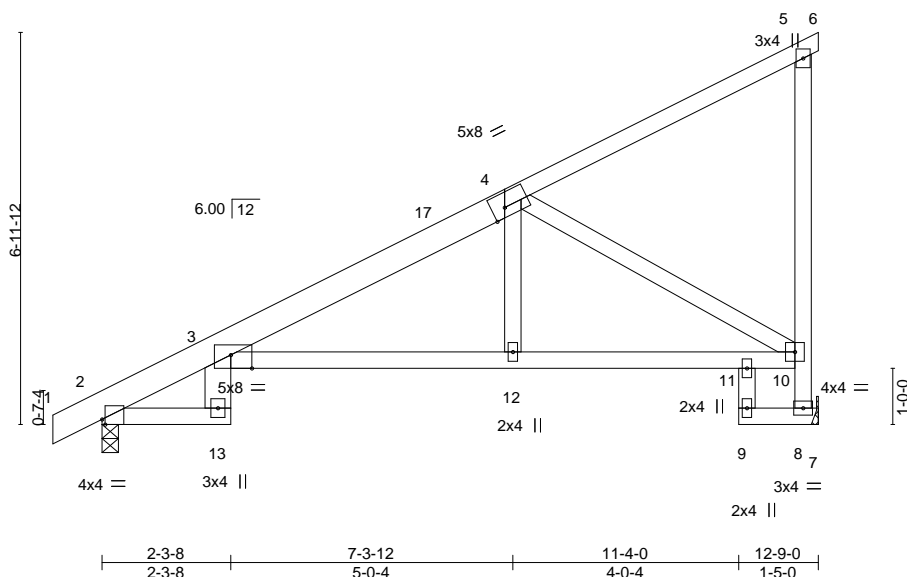


Plate Offsets (X,Y)-- [2:0-0-10,Edge], [3:0-4-8,Edge], [4:0-2-12,Edge]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.15	3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.34	3-12	>446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

LUMBER-

TOP CHORD 2x6 SPF No.2 *Except*
4-6: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
3-13: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

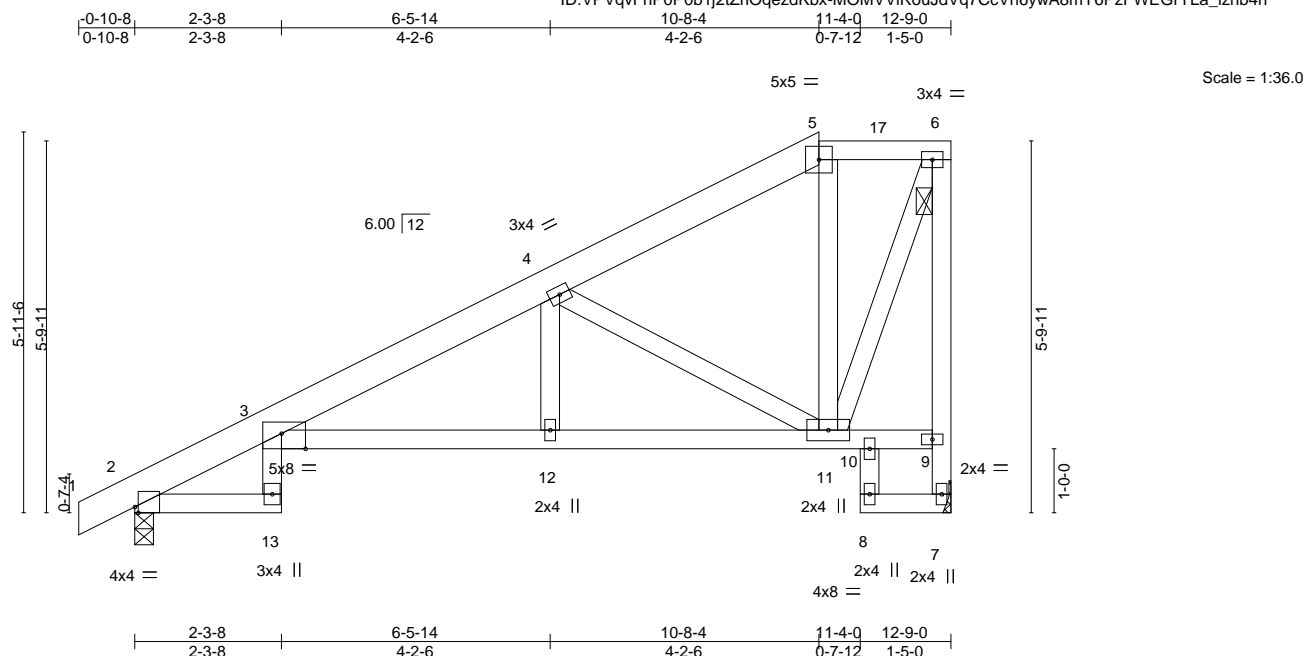


Plate Offsets (X,Y)--		[2:0-0-10,Edge], [3:0-4-8,Edge]									
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.14 3-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.30 3-12	>499	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.21 7	n/a	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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss C6	Truss Type Half Hip	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965885
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:37 2021 Page 1

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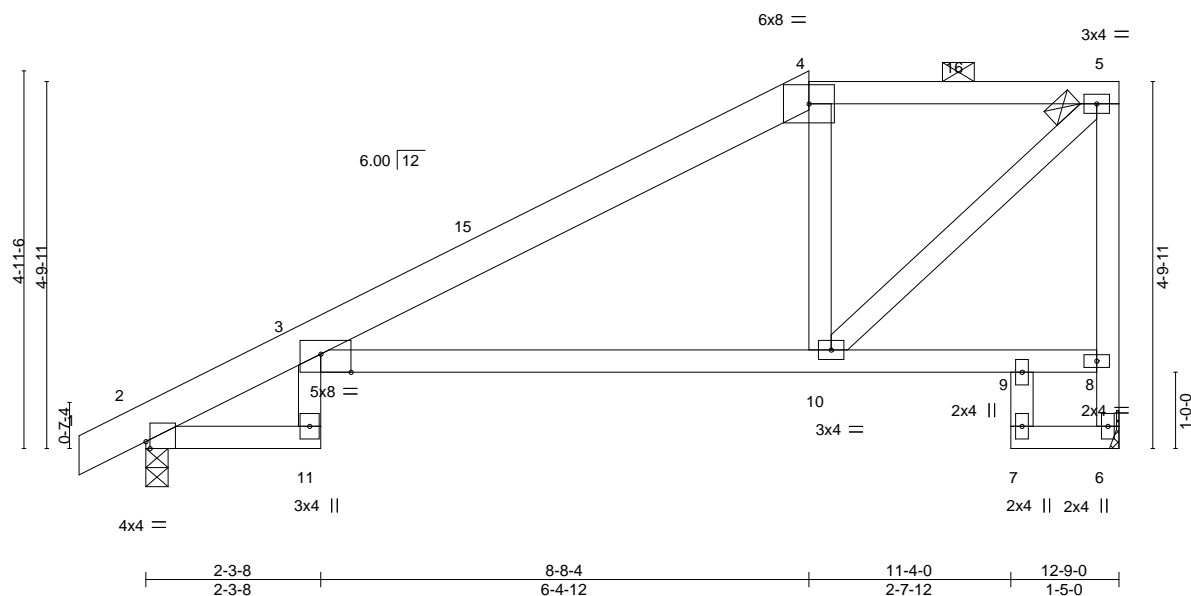
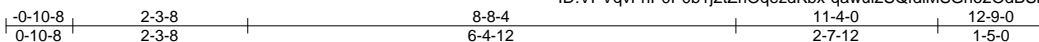


Plate Offsets (X, Y)--		[2:0-0-10,Edge], [3:0-4-12,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.97	Vert(LL)	-0.22 3-10	>693	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.50 3-10	>303	180		
BCLL	0.0	Rep Stress 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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss C7	Truss Type Half Hip	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965886
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Builders FirstSource (Valley Center),

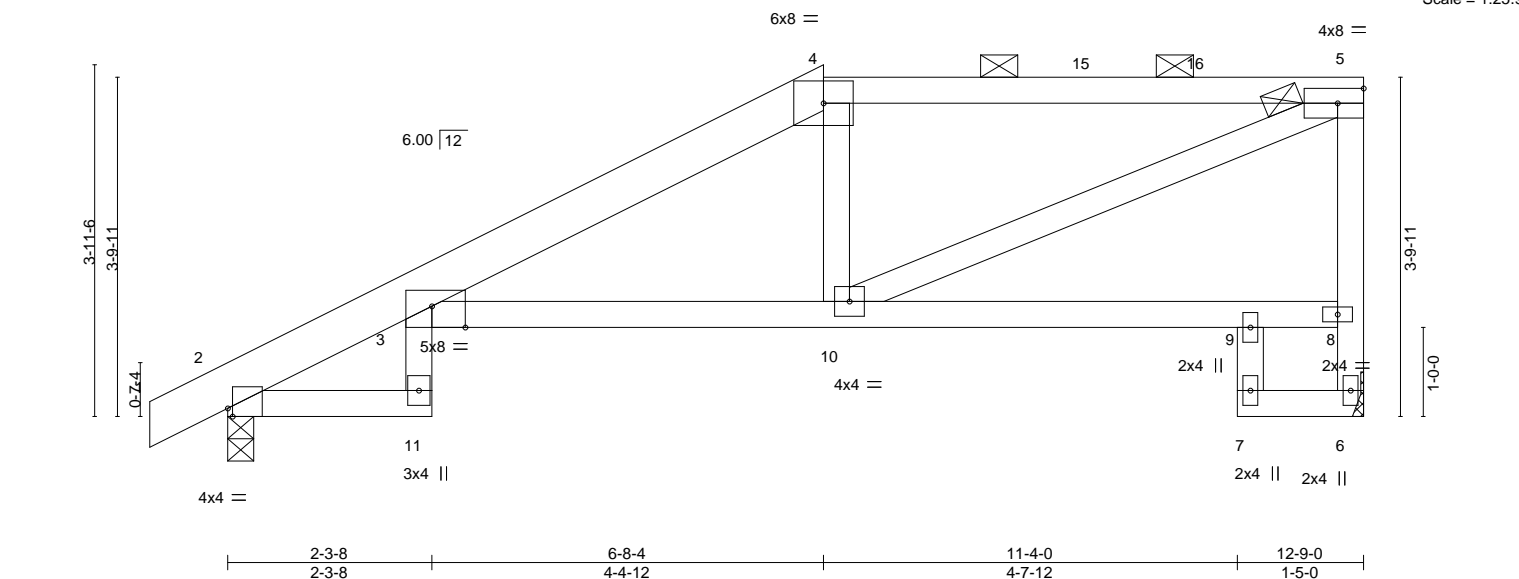
Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:38 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-lmUGwOT2QwtD4QM?c68Q?ae62v5WjTLZJsqg3bzbh4l

-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
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Scale = 1:25.9



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 0.97	Vert(LL)	-0.15	3-10	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.33	3-10	>459	180	197/144
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-

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 (5-2-9 max.): 4-5.
BOT CHORD Rigid ceiling directly applied.

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-

- 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 2-1-12, 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
- 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 121 lb uplift at joint 6 and 133 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 C8	Truss Type Half Hip Girder	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965887
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:41 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-iL9OYPVxirFnxu5aHEh7dDseg77jwn60?q2Lgwzhh4i

Job Reference (optional)

0-10-8	2-3-8	4-8-4	8-0-2	11-4-0	12-9-0
0-10-8	2-3-8	2-4-12	3-3-14	3-3-14	1-5-0

Scale = 1:23.3

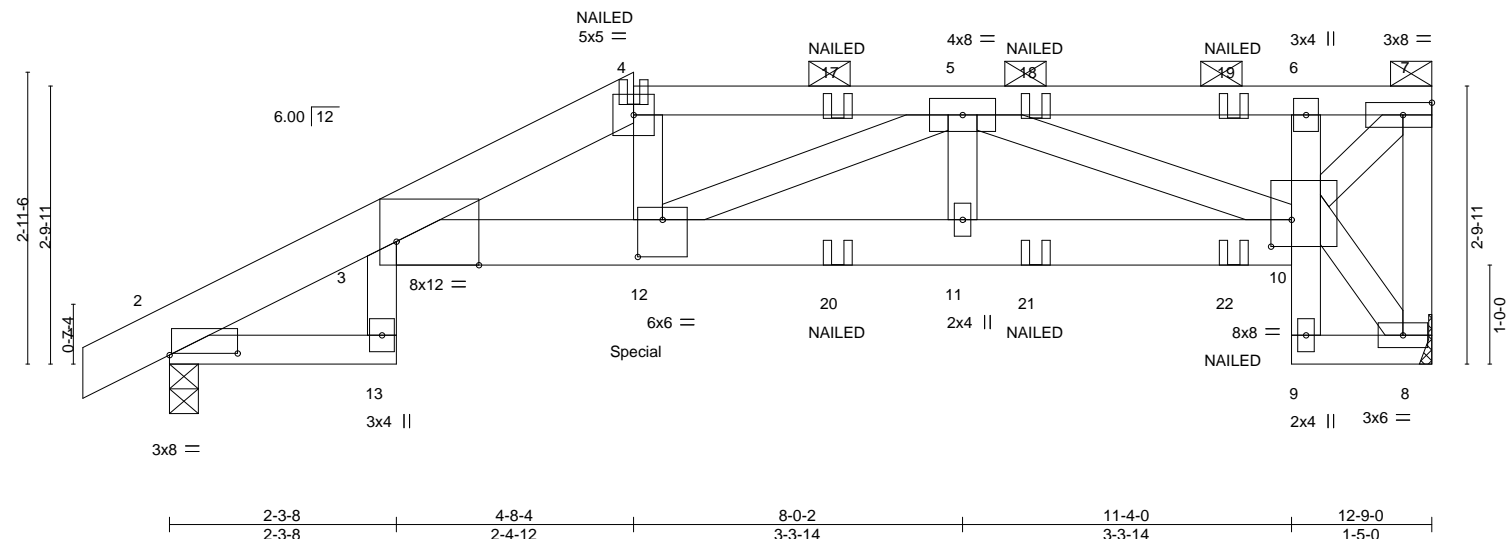


Plate Offsets (X,Y)-- [2:0-8-4,0-0-3], [3:0-10-0,Edge], [10:0-2-8,0-3-4], [12:0-3-0,0-4-8]									
LOADING (psf)		SPACING 2-0-0		CSI		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.12 3-12 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.26 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



February 25, 2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965887
2630561	C8	Half Hip Girder	1	1	Job Reference (optional)	

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)



Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965888
2630561	CJ1	Diagonal Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:42 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-AXjnmIWZT9NeY2fmyDM9QOxiXTUfJ59EUouCMzhb4h



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	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.06	7-8	>999	240	MT20	197/144	
TCDL 20.0	Lumber DOL	1.15	BC 0.71	Vert(CT)	-0.12	7-8	>622	180	MT20HS	148/108	
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.05	7	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR								
									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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965889
2630561	CJ2	Diagonal Hip Girder	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:42 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-AXjnmIWZT9NeY2fmyDM9QO?sXdifl39EUouCMzhb4h

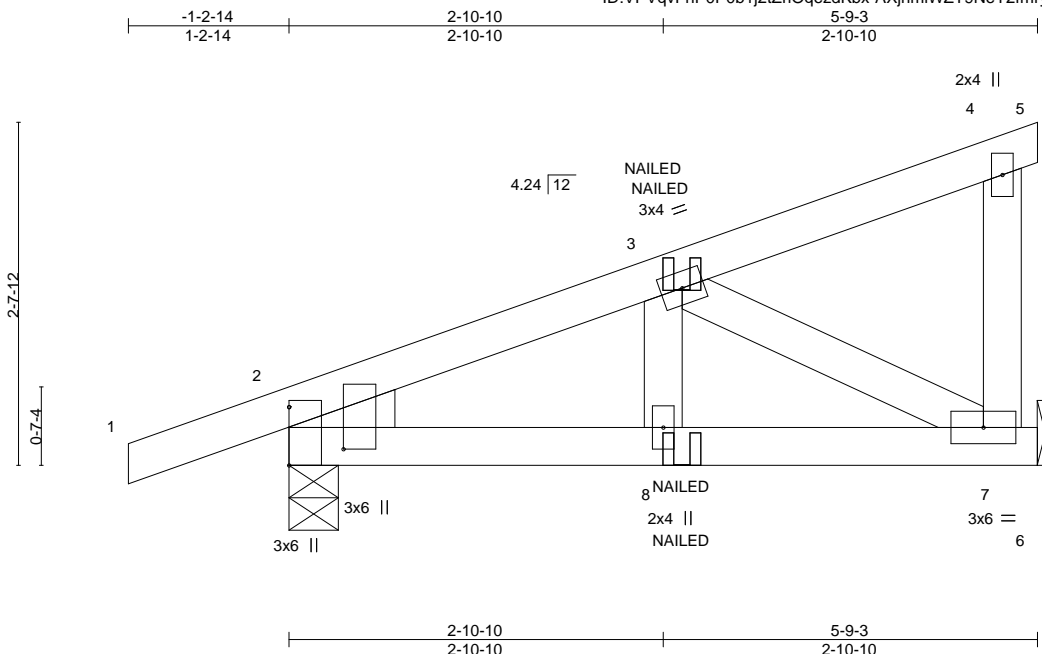


Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]							
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00 8 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	-0.01 8 >999 180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.00 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP				Weight: 23 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 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

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 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).

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: 8=-14(F=-7, B=-7)



February 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965890
2630561	CJ3	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:43 2021 Page 1
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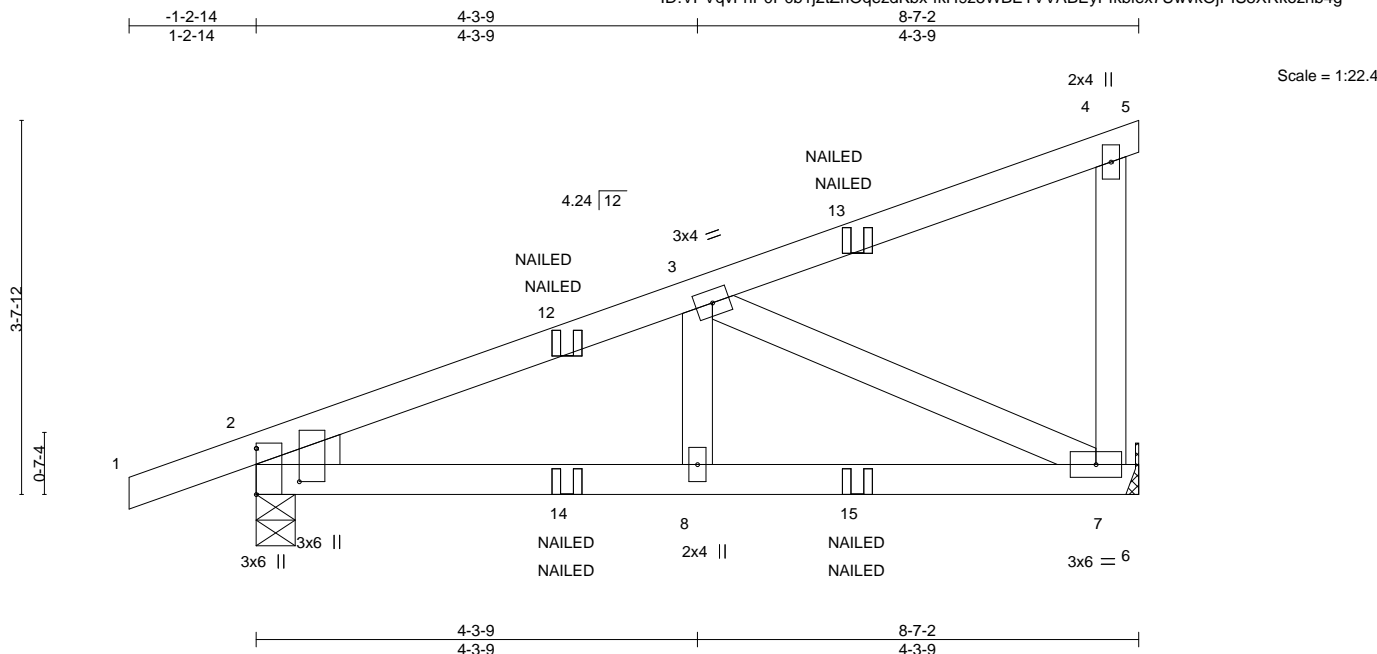


Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.01	7-8	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.04	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss CJ4	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	Summit/39 Woodside Ridge/MO 144965891
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:44 2021 Page 1					
Job Reference (optional) ID:VPVqvFnP0P0b1j2tZrOqezdKbx-7wrXARXp?meMoLp9zNFqERUL7Kle7C7ShoH?GEzHb4f					

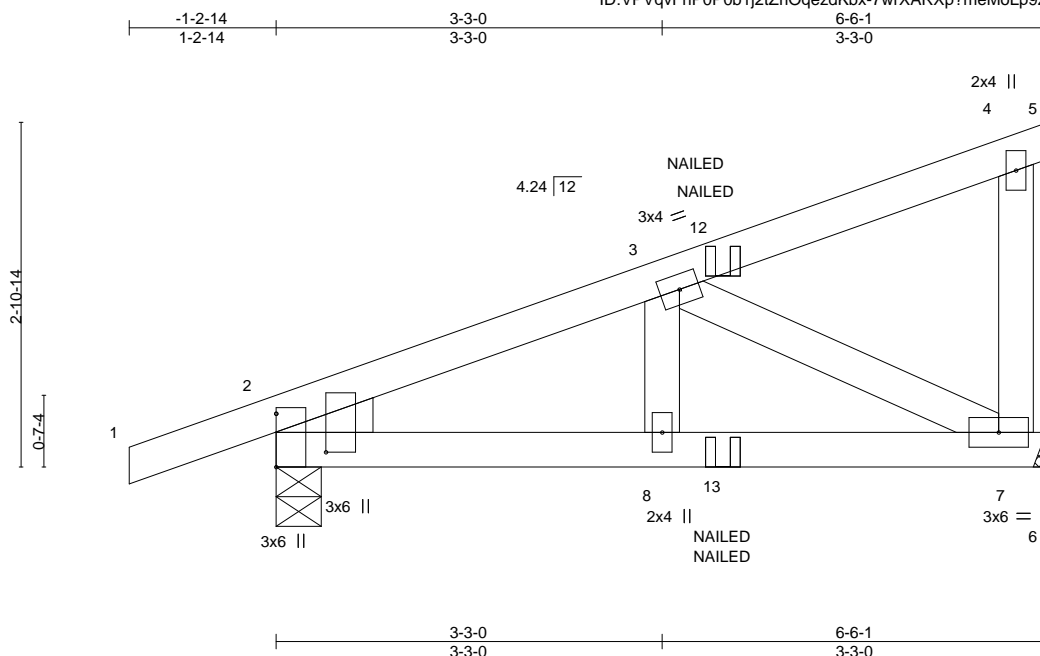


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]		3-3-0 3-3-0		6-6-1 3-3-0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.01 8 >999 240
TCDL 20.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	-0.01 7-8 >999 180
BCLL 0.0	Rep Stress Incr	NO	WB 0.09	Horz(CT)	0.00 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.

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

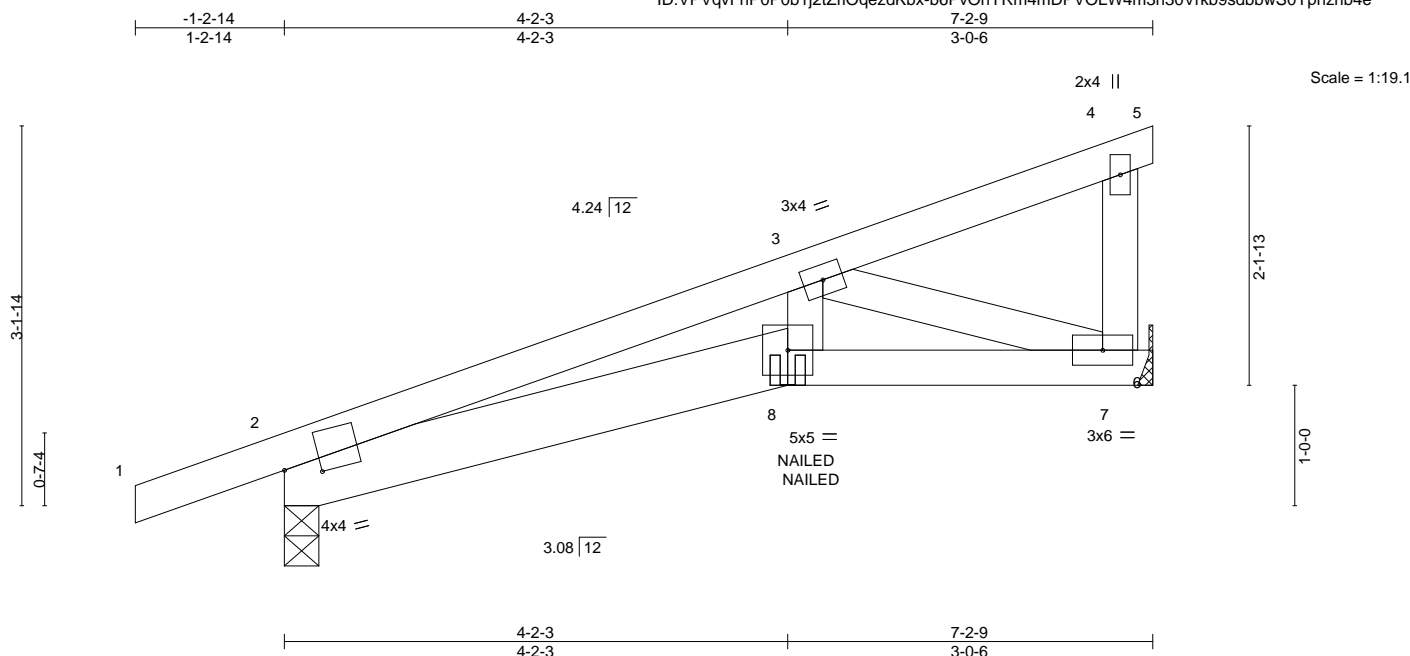


Plate Offsets (X,Y)-- [2:0-3-10,0-1-1]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	-0.03	8	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.05	8	>999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.21	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP							Weight: 27 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-8: 2x6 SPF No.2
WEBS 2x4 SPF No.2

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.

REACTIONS.

(size) 2=0-3-7, 7=Mechanical
Max Horz 2=110(LC 5)
Max Uplift 2=-162(LC 4), 7=-158(LC 8)
Max Grav 2=598(LC 1), 7=532(LC 1)

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

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) 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).

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, 8-9=-20, 6-8=-20
Concentrated Loads (lb)
Vert: 8=-238(F=-119, B=-119)



February 25, 2021



WARNING – Velly design parameters are listed below and included with the key reference to AISC M14-15 16f, 17f, 18f, 19f, 20f, 21f, 22f, 23f, 24f, 25f, 26f, 27f, 28f, 29f, 30f, 31f, 32f, 33f, 34f, 35f, 36f, 37f, 38f, 39f, 40f, 41f, 42f, 43f, 44f, 45f, 46f, 47f, 48f, 49f, 50f, 51f, 52f, 53f, 54f, 55f, 56f, 57f, 58f, 59f, 60f, 61f, 62f, 63f, 64f, 65f, 66f, 67f, 68f, 69f, 70f, 71f, 72f, 73f, 74f, 75f, 76f, 77f, 78f, 79f, 80f, 81f, 82f, 83f, 84f, 85f, 86f, 87f, 88f, 89f, 90f, 91f, 92f, 93f, 94f, 95f, 96f, 97f, 98f, 99f, 100f, 101f, 102f, 103f, 104f, 105f, 106f, 107f, 108f, 109f, 110f, 111f, 112f, 113f, 114f, 115f, 116f, 117f, 118f, 119f, 120f, 121f, 122f, 123f, 124f, 125f, 126f, 127f, 128f, 129f, 130f, 131f, 132f, 133f, 134f, 135f, 136f, 137f, 138f, 139f, 140f, 141f, 142f, 143f, 144f, 145f, 146f, 147f, 148f, 149f, 150f, 151f, 152f, 153f, 154f, 155f, 156f, 157f, 158f, 159f, 160f, 161f, 162f, 163f, 164f, 165f, 166f, 167f, 168f, 169f, 170f, 171f, 172f, 173f, 174f, 175f, 176f, 177f, 178f, 179f, 180f, 181f, 182f, 183f, 184f, 185f, 186f, 187f, 188f, 189f, 190f, 191f, 192f, 193f, 194f, 195f, 196f, 197f, 198f, 199f, 200f, 201f, 202f, 203f, 204f, 205f, 206f, 207f, 208f, 209f, 210f, 211f, 212f, 213f, 214f, 215f, 216f, 217f, 218f, 219f, 220f, 221f, 222f, 223f, 224f, 225f, 226f, 227f, 228f, 229f, 230f, 231f, 232f, 233f, 234f, 235f, 236f, 237f, 238f, 239f, 240f, 241f, 242f, 243f, 244f, 245f, 246f, 247f, 248f, 249f, 250f, 251f, 252f, 253f, 254f, 255f, 256f, 257f, 258f, 259f, 260f, 261f, 262f, 263f, 264f, 265f, 266f, 267f, 268f, 269f, 270f, 271f, 272f, 273f, 274f, 275f, 276f, 277f, 278f, 279f, 280f, 281f, 282f, 283f, 284f, 285f, 286f, 287f, 288f, 289f, 290f, 291f, 292f, 293f, 294f, 295f, 296f, 297f, 298f, 299f, 300f, 301f, 302f, 303f, 304f, 305f, 306f, 307f, 308f, 309f, 310f, 311f, 312f, 313f, 314f, 315f, 316f, 317f, 318f, 319f, 320f, 321f, 322f, 323f, 324f, 325f, 326f, 327f, 328f, 329f, 330f, 331f, 332f, 333f, 334f, 335f, 336f, 337f, 338f, 339f, 340f, 341f, 342f, 343f, 344f, 345f, 346f, 347f, 348f, 349f, 350f, 351f, 352f, 353f, 354f, 355f, 356f, 357f, 358f, 359f, 360f, 361f, 362f, 363f, 364f, 365f, 366f, 367f, 368f, 369f, 370f, 371f, 372f, 373f, 374f, 375f, 376f, 377f, 378f, 379f, 380f, 381f, 382f, 383f, 384f, 385f, 386f, 387f, 388f, 389f, 390f, 391f, 392f, 393f, 394f, 395f, 396f, 397f, 398f, 399f, 400f, 401f, 402f, 403f, 404f, 405f, 406f, 407f, 408f, 409f, 410f, 411f, 412f, 413f, 414f, 415f, 416f, 417f, 418f, 419f, 420f, 421f, 422f, 423f, 424f, 425f, 426f, 427f, 428f, 429f, 430f, 431f, 432f, 433f, 434f, 435f, 436f, 437f, 438f, 439f, 440f, 441f, 442f, 443f, 444f, 445f, 446f, 447f, 448f, 449f, 450f, 451f, 452f, 453f, 454f, 455f, 456f, 457f, 458f, 459f, 460f, 461f, 462f, 463f, 464f, 465f, 466f, 467f, 468f, 469f, 470f, 471f, 472f, 473f, 474f, 475f, 476f, 477f, 478f, 479f, 480f, 481f, 482f, 483f, 484f, 485f, 486f, 487f, 488f, 489f, 490f, 491f, 492f, 493f, 494f, 495f, 496f, 497f, 498f, 499f, 500f, 501f, 502f, 503f, 504f, 505f, 506f, 507f, 508f, 509f, 510f, 511f, 512f, 513f, 514f, 515f, 516f, 517f, 518f, 519f, 520f, 521f, 522f, 523f, 524f, 525f, 526f, 527f, 528f, 529f, 530f, 531f, 532f, 533f, 534f, 535f, 536f, 537f, 538f, 539f, 540f, 541f, 542f, 543f, 544f, 545f, 546f, 547f, 548f, 549f, 550f, 551f, 552f, 553f, 554f, 555f, 556f, 557f, 558f, 559f, 560f, 561f, 562f, 563f, 564f, 565f, 566f, 567f, 568f, 569f, 570f, 571f, 572f, 573f, 574f, 575f, 576f, 577f, 578f, 579f, 580f, 581f, 582f, 583f, 584f, 585f, 586f, 587f, 588f, 589f, 590f, 591f, 592f, 593f, 594f, 595f, 596f, 597f, 598f, 599f, 600f, 601f, 602f, 603f, 604f, 605f, 606f, 607f, 608f, 609f, 610f, 611f, 612f, 613f, 614f, 615f, 616f, 617f, 618f, 619f, 620f, 621f, 622f, 623f, 624f, 625f, 626f, 627f, 628f, 629f, 630f, 631f, 632f, 633f, 634f, 635f, 636f, 637f, 638f, 639f, 640f, 641f, 642f, 643f, 644f, 645f, 646f, 647f, 648f, 649f, 650f, 651f, 652f, 653f, 654f, 655f, 656f, 657f, 658f, 659f, 660f, 661f, 662f, 663f, 664f, 665f, 666f, 667f, 668f, 669f, 670f, 671f, 672f, 673f, 674f, 675f, 676f, 677f, 678f, 679f, 680f, 681f, 682f, 683f, 684f, 685f, 686f, 687f, 688f, 689f, 690f, 691f, 692f, 693f, 694f, 695f, 696f, 697f, 698f, 699f, 700f, 701f, 702f, 703f, 704f, 705f, 706f, 707f,



16023 Swingley Ridge Rd
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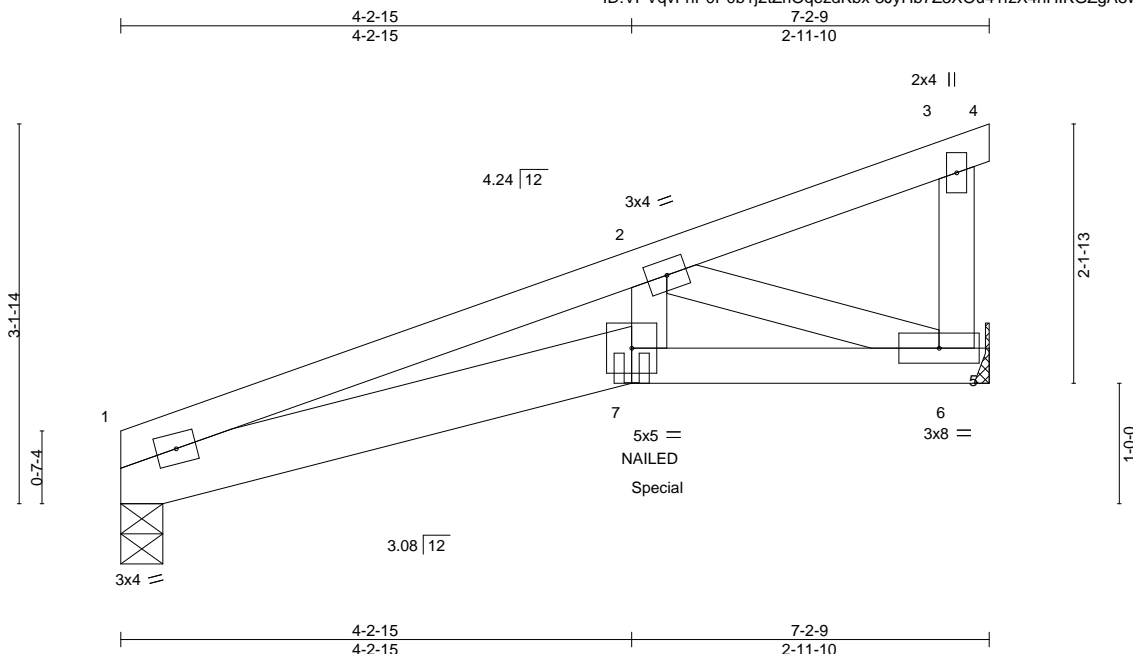
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965893
2630561	CJ6	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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Scale = 1:19.1

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 0.25	Vert(LL)	-0.03	7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.05	7	>999	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.21	Horz(CT)	0.02	6	n/a	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-

- 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) 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 105 lb uplift at joint 1 and 163 lb uplift at joint 6.
- 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: 1-3=-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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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
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Job 2630561	Truss CJ7	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965894
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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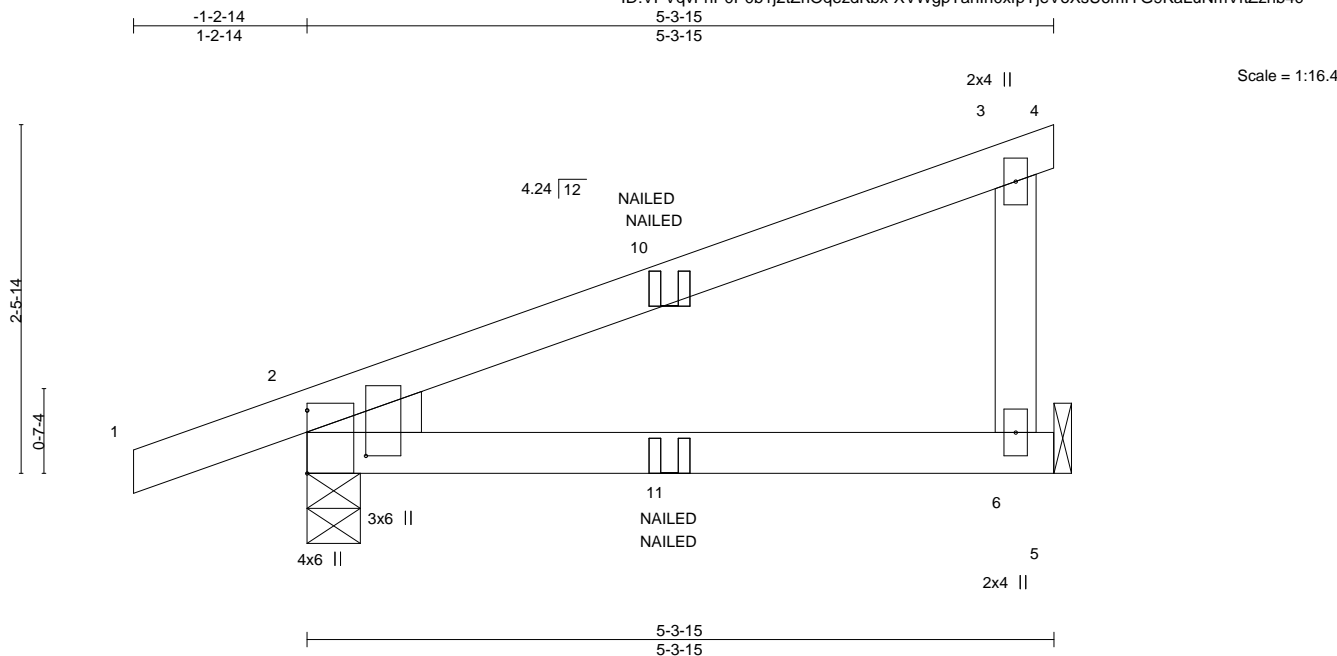


Plate Offsets (X,Y)-- [2:0-3-14,0-5-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.04 6-9 >999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	-0.09 6-9 >693	180	
BCLL	0.0	Rep Stress Incr	NO	WB	0.00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

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

REACTIONS.

(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.

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 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).

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=-40, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-11(F=-5, B=-5)



February 25, 2021

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Chesterfield, MO 63017

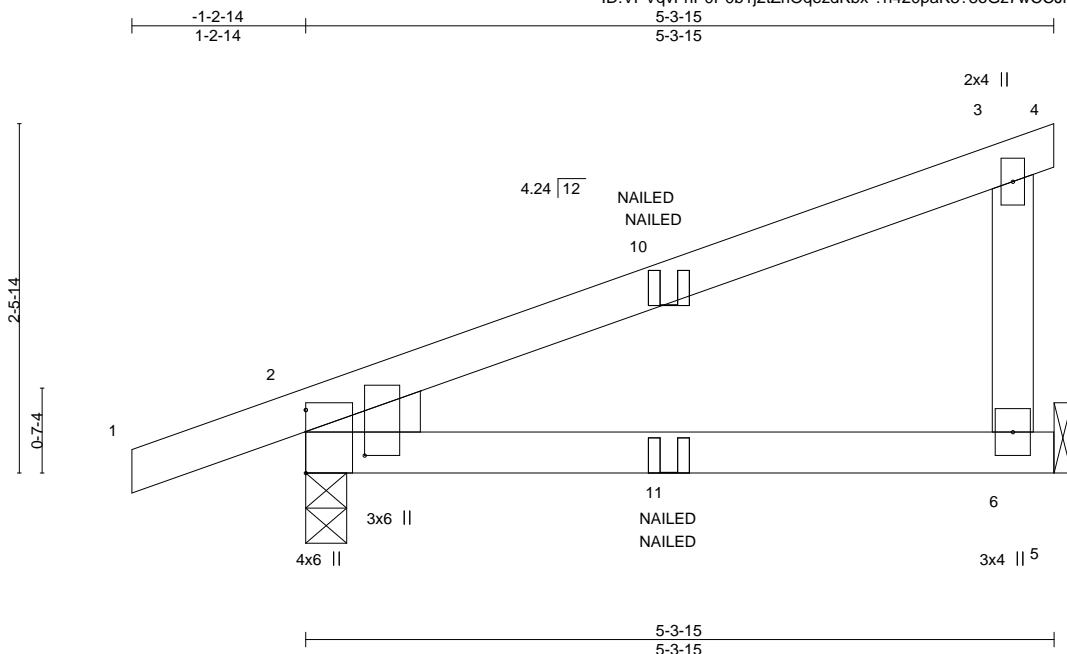
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965895
2630561	CJ8	Diagonal Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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ID:VPVqvFnP0P0b1j2tZrOqezdKbx-?h420paK3?8oGz7wCCJmPhex7xcS3192cQFCP0znb4b



Scale = 1:16.4

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	0.48	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%

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

REACTIONS.

(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.

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 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).

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=-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 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 Woodside Ridge/MO	144965896
2630561	CJ9	Diagonal Hip Girder	2	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:48 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-?h420paK3?8oGz7wCCJmPhEysxbh3yR2cQFCP0zhb4b

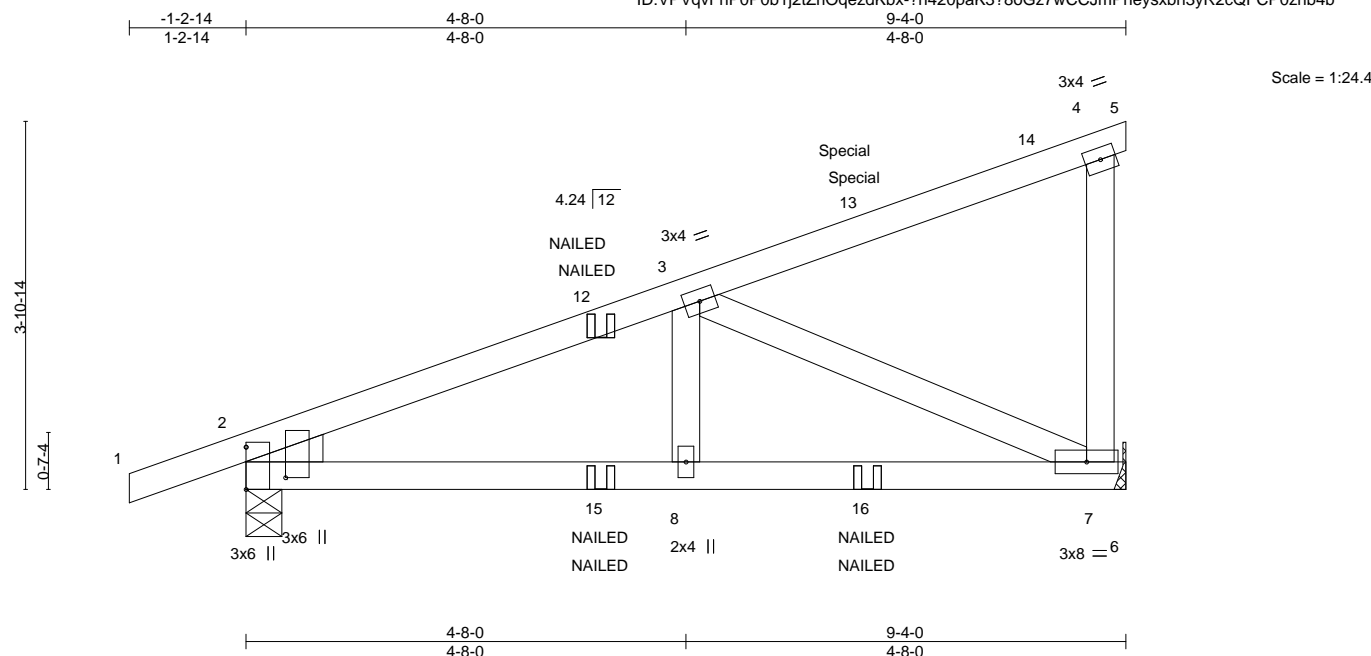


Plate Offsets (X,Y)--		[2:0-3-14,0-5-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.43	Vert(LL)	-0.02	7-8	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.04	7-8	>999	180	
BCLL	0.0	Rep Stress Incr	NO	WB	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)



February 25, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss D1	Truss Type Half Hip Girder	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965897
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:50 2021 Page 1

ID:VPVqVFnP0P0b1j2tZrOqezdKbx-x4CoRUcabcOWWGHJdMEU6kl?HOXrqK3jkJUuzhb4Z

-0-10-8 0-10-8	4-8-4 4-8-4	7-9-10 3-1-6	11-2-8 3-4-14
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Scale = 1:23.5

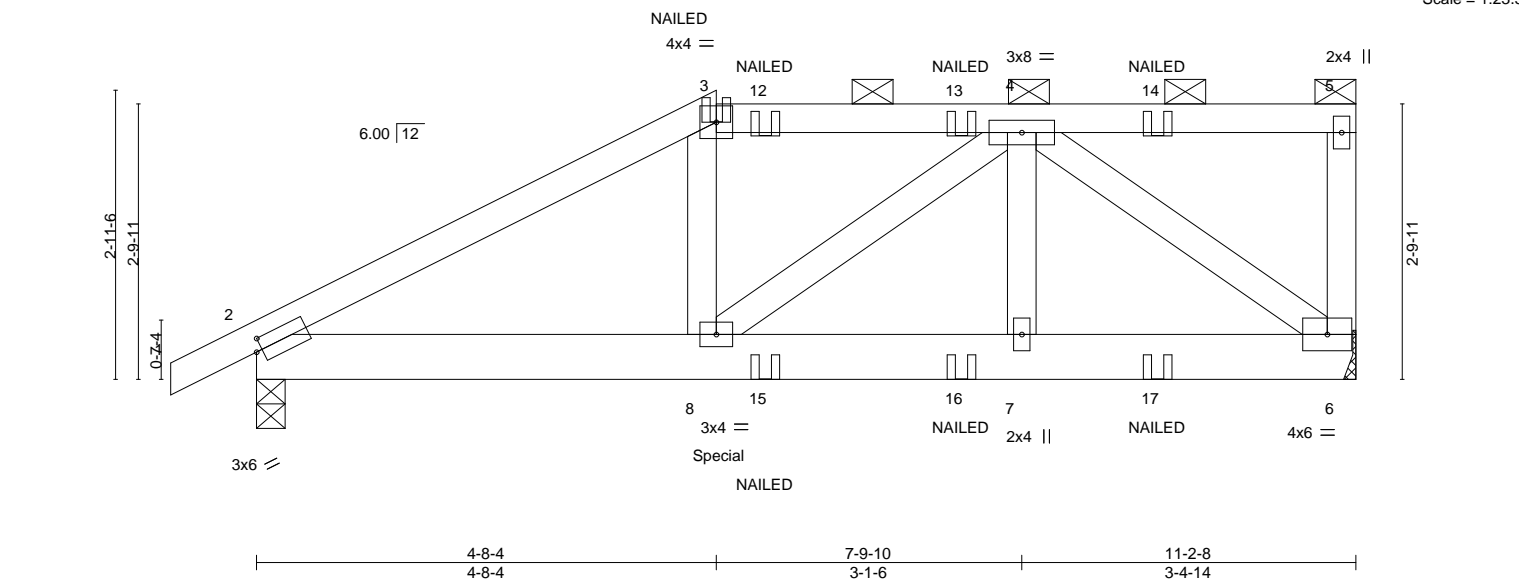


Plate Offsets (X,Y)-- [2:0-0-12,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.02 8 >999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.05 7-8 >999	180		
BCLL	0.0	Rep Stress Incr	NO	WB	0.40	Horz(CT)	0.01 6 n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 50 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 4-2-14 oc purlins, except end verticals, and 2-0-0 oc purlins (4-9-5 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

- 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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

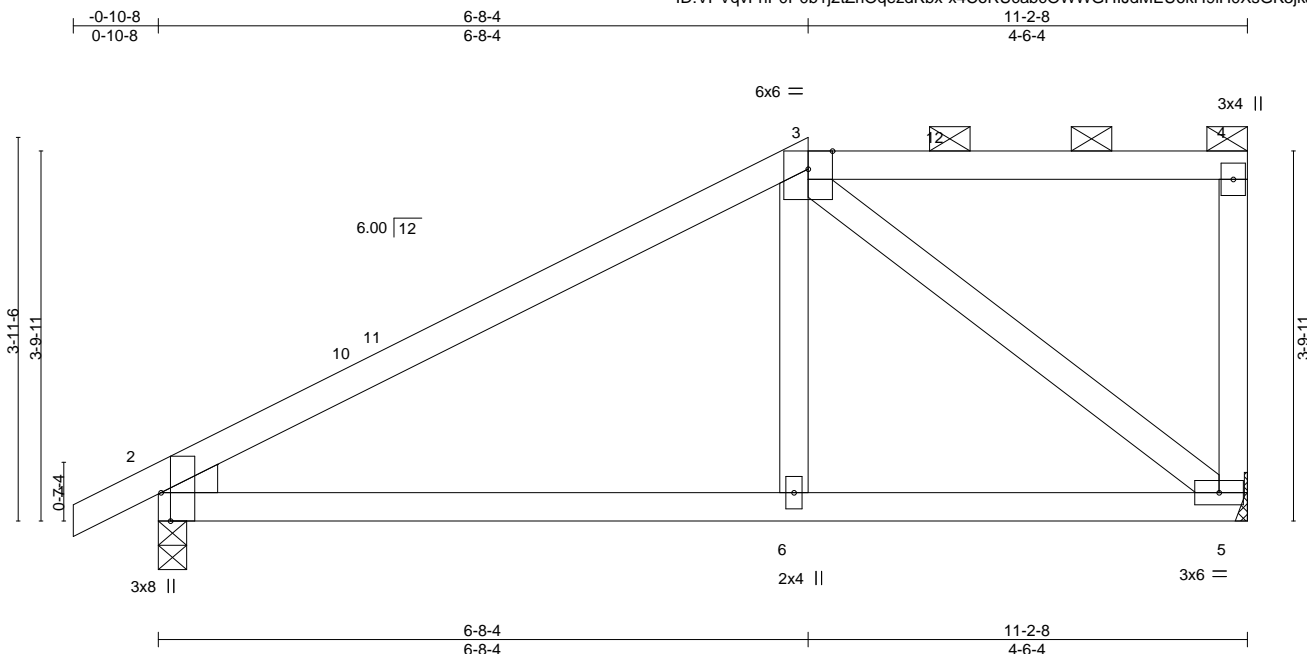
Job 2630561	Truss D2	Truss Type Half Hip	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965898
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:50 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-x4CoRUcabcoWWGHIJdMEU6kH9IH0XsGK3jkJUuzhb4Z



Scale = 1:23.7

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	0.51	Vert(LL)	0.06	6-9	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.11	6-9	>999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.37	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 42 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.): 3-4.
BOT CHORD Rigid ceiling directly applied.

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss D3	Truss Type Half Hip	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965899
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:51 2021 Page 1

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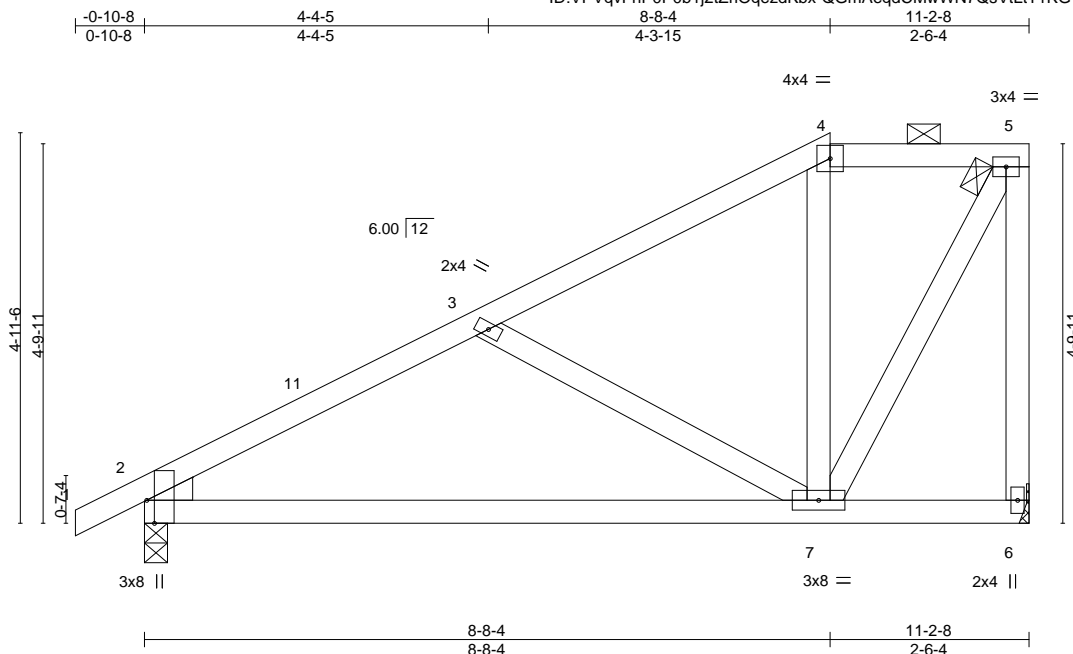


Plate Offsets (X,Y)--		[2:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d			PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.09	7-10	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.18	7-10	>748	180	
BCLL	0.0	Rep Stress Incr	YES	WB	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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss D4	Truss Type Half Hip	Qty 2	Ply 1	Summit/39 Woodside Ridge/MO 144965900
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:52 2021 Page 1
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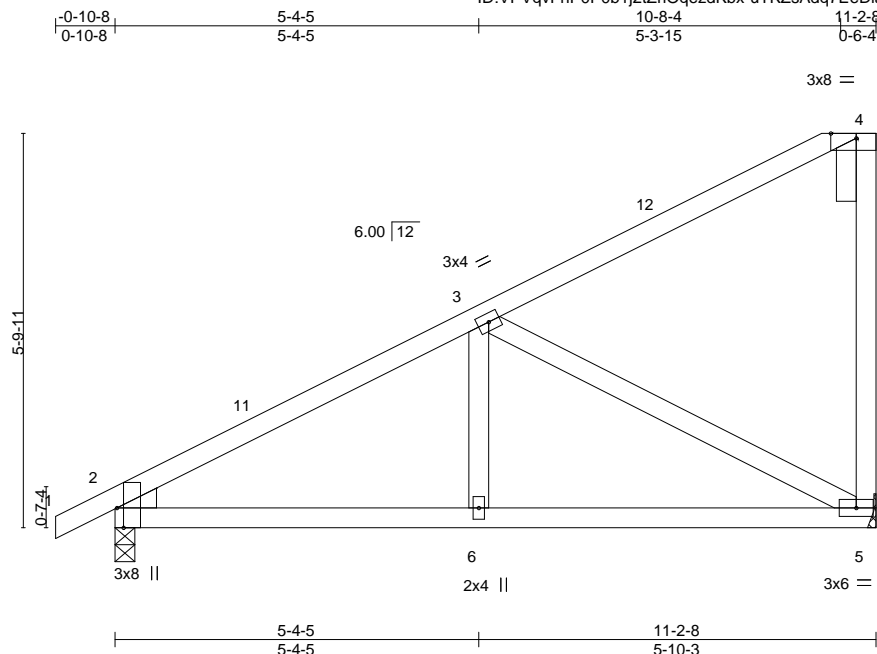


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:0-4-8,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.40	Vert(LL)	-0.03	5-6	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	-0.06	5-6	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.01	5	n/a
BCDL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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss D5	Truss Type Jack-Closed	Qty 7	Ply 1	Summit/39 Woodside Ridge/MO I44965901
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:53 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-Mfux3WeSuXm4Nk?t_mvX6LpGyK_kBSnmhyz5Dzhh4W

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0-10-8	5-5-11	5-8-13

Scale = 1:35.5

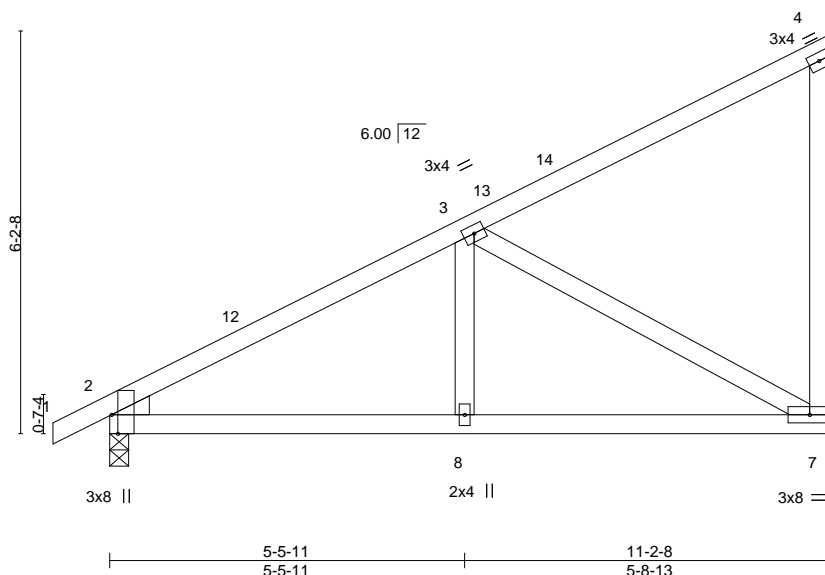


Plate Offsets (X,Y)--		[2:0-3-8,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.39		Vert(LL) -0.02 7-8 >999 240		MT20		197/144	
TCDL	20.0	Lumber DOL 1.15		BC 0.27		Vert(CT) -0.04 7-8 >999 180					
BCLL	0.0	Rep Stress Incr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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss E1	Truss Type Roof Special	Qty 2	Ply 1	Summit/39 Woodside Ridge/MO 144965902
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:54 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-qrRJHsf5frux_ua4YTQAeyu1rMf0TiPw_LiXdfzhb4V



4x6 ||

Scale = 1:23.3

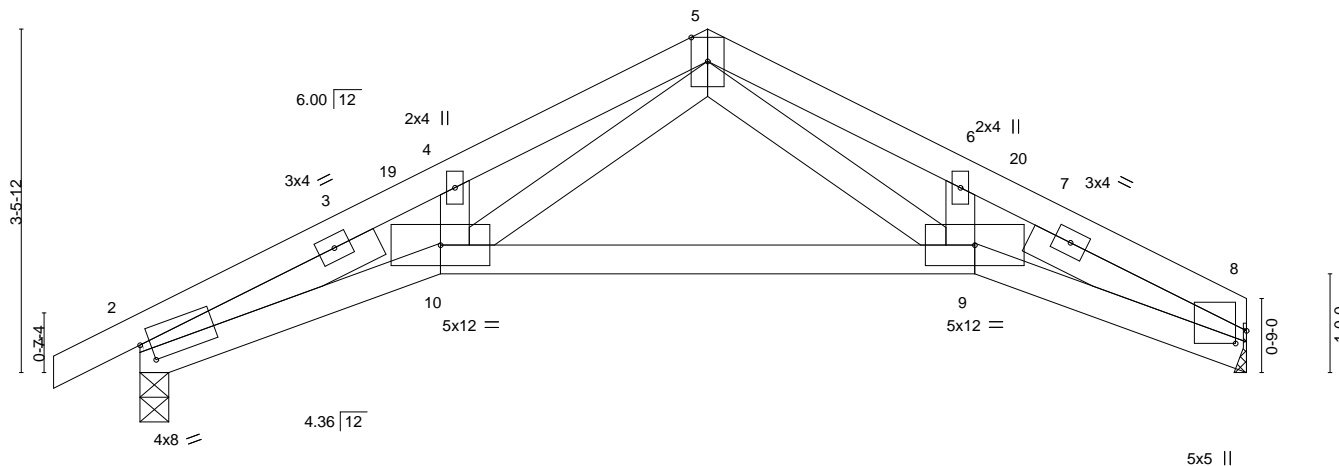


Plate Offsets (X,Y)--	[2:0-1-4,0-2-5], [8:0-1-9,0-1-5]
-----------------------	----------------------------------

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
TCDL 20.0	Lumber DOL	1.15	BC 0.35	Vert(CT)	-0.15	9-10	>886	180	197/144
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-

TOP CHORD 2x4 SPF No.2
 BOT CHORD 2x4 SPF No.2
 WEBS 2x4 SPF No.2
 SLIDER Left 2x4 SPF No.2 -t 2-8-1, Right 2x4 SPF No.2 -t 2-5-5

BRACING-

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

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-

- 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 11-2-8 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
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 8 and 103 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.



February 25, 2021

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job 2630561	Truss E2	Truss Type Roof Special	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965903
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:55 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlQeqzdKbx-11?hUCgJP90oc19G6AxPBARCM_bC9V3D?R496zhh4U

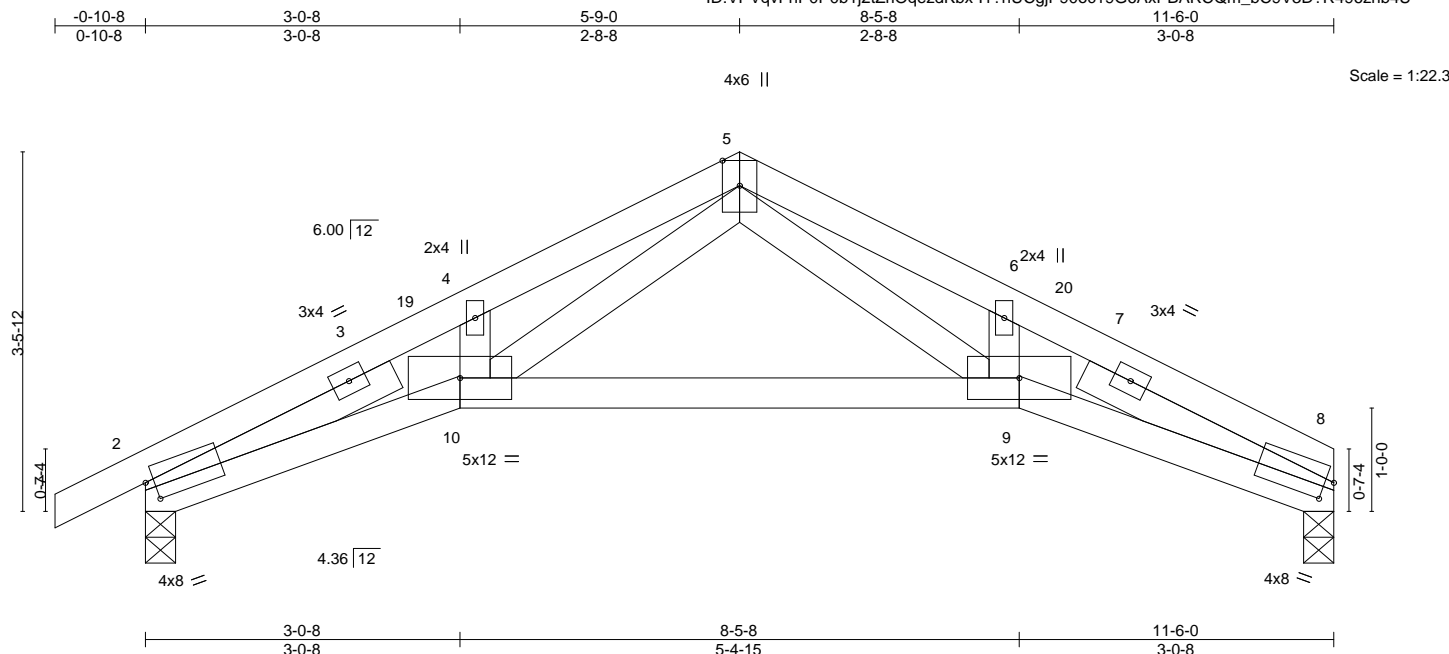


Plate Offsets (X,Y)-- [2:0-1-0,0-2-5], [8:0-1-0,0-2-5]							
LOADING (psf)	SPACING	2-0-0	CSI	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	-0.06 9-10	>999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.39	Vert(CT)	-0.17 9-10	>820	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.09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

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2
WEBS 2x4 SPF No.2
SLIDER Left 2x4 SPF No.2 -t 2-8-1, Right 2x4 SPF No.2 -t 2-8-1

BRACING-

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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

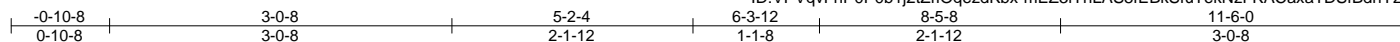
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965904
2630561	E3	Hip Girder	1	1		

Builders FirstSource (Valley Center),

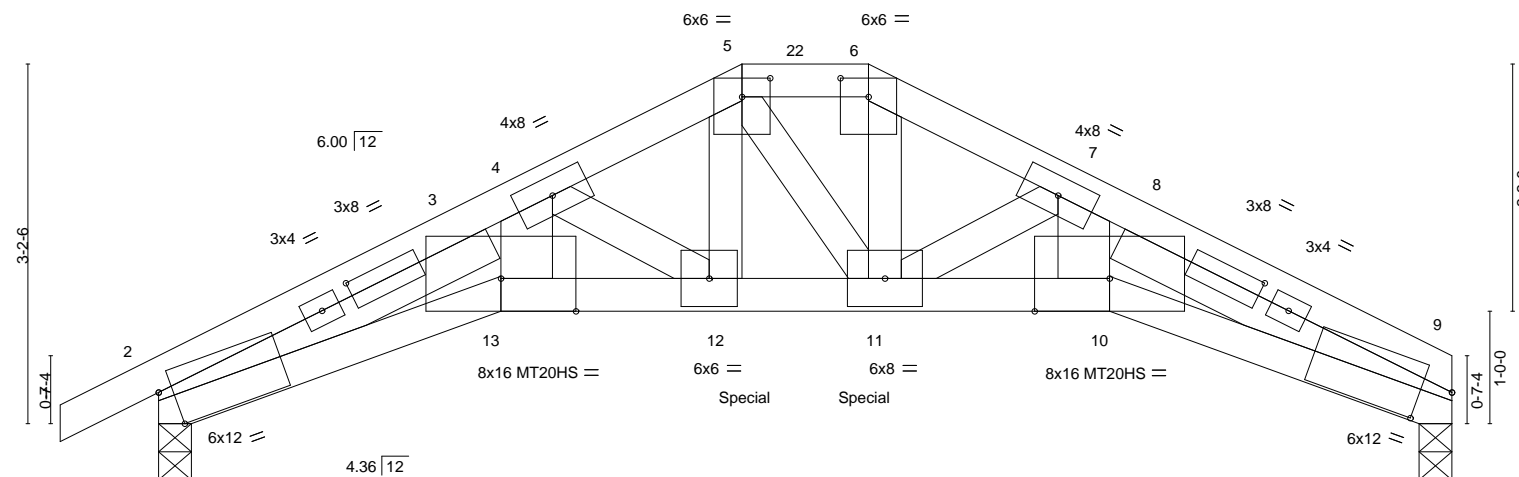
Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:56 2021 Page 1

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Scale = 1:20.5



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

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]

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

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965904
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. Thu Feb 25 13:02:56 2021 Page 2
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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)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965905
2630561	F1	Roof Special Girder	1	1		

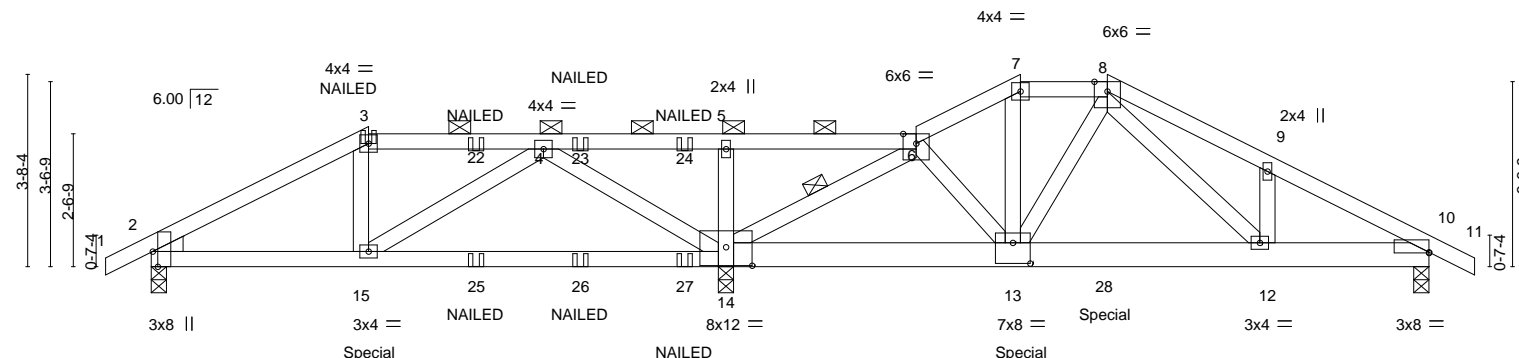
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:57 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrlQeqzdKbx-EQ7RvuhzxmGWrLJeDb_tGbWRlaeYg_XMgJwBE_zhb4S

0-10-8	4-2-0	7-6-4	9-5-0	11-0-4	14-8-0	16-8-0	18-4-0	21-4-13	24-6-0	25-4-8
0-10-8	4-2-0	3-4-4	1-10-12	1-7-4	3-7-12	2-0-0	1-8-0	3-0-13	3-1-3	0-10-8

Scale = 1:44.2



	4-2-0	7-7-2	11-0-4	14-8-0	16-8-0	18-4-0	21-4-13	24-6-0
	4-2-0	3-5-2	3-5-2	3-7-12	2-0-0	1-8-0	3-0-13	3-1-3

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	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.68	Vert(LL)	-0.09 14-15	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.55	Vert(CT)	-0.20 14-15	>656	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.53	Horz(CT)	0.02 10	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						
								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

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 Woodside Ridge/MO	I44965905
2630561	F1	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. Thu Feb 25 13:02:58 2021 Page 2
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-ichq7Dibi4ONTVurnJV6po3cVz_mPRnWvzgkmQzhh4R

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)

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965906
2630561	F2	Roof Special	1	1		

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

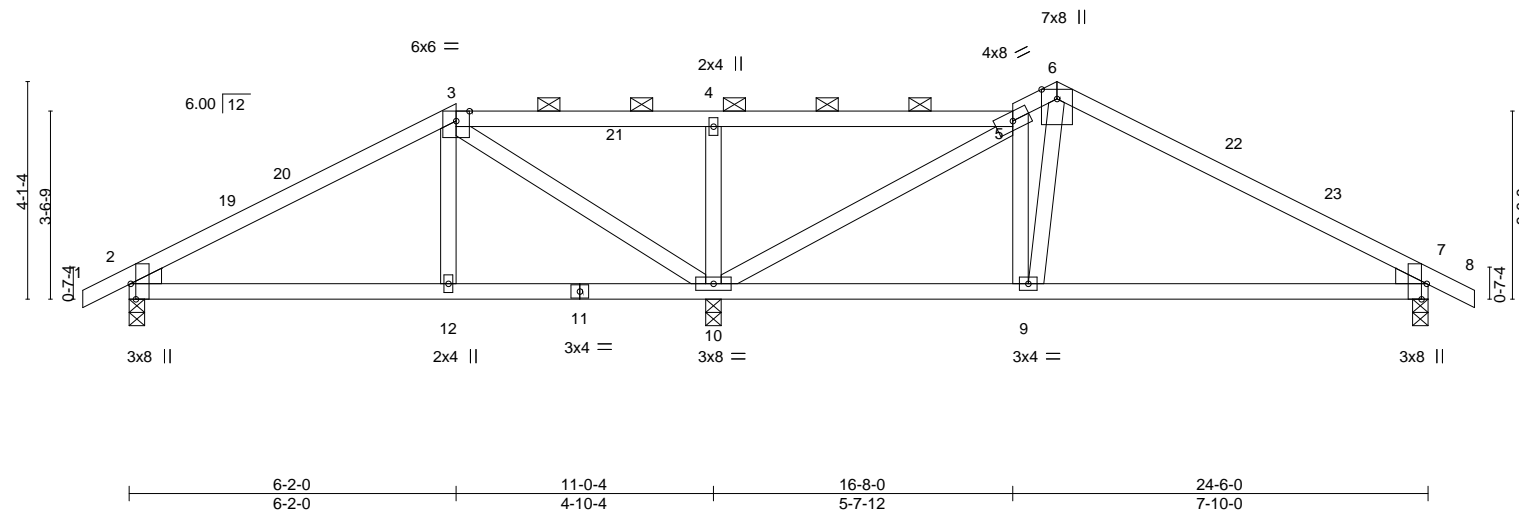
8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:02:58 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-ichq7Dibi4ONTVurnJV6po3eGz?IPQ6WvzgkmQzhh4R

Job Reference (optional)

0-10-8	6-2-0	11-0-4	11-5-0	16-8-0	17-6-0	24-6-0	25-4-8
0-10-8	6-2-0	4-10-4	0-4-12	5-3-0	0-10-0	7-0-0	0-10-8

Scale = 1:43.5



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	BC 0.57	in (loc) l/defl L/d	MT20	197/144
TCDL 20.0	Plate Grip DOL 1.15	TC 0.45	Vert(LL) 0.07 9-18 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.64	Vert(CT) -0.16 9-18 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.02 2 n/a n/a		
	Code IRC2018/TPI2014			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-**
- 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 6-2-0, 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
 - 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 130 lb uplift at joint 2, 148 lb uplift at joint 7 and 214 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

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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

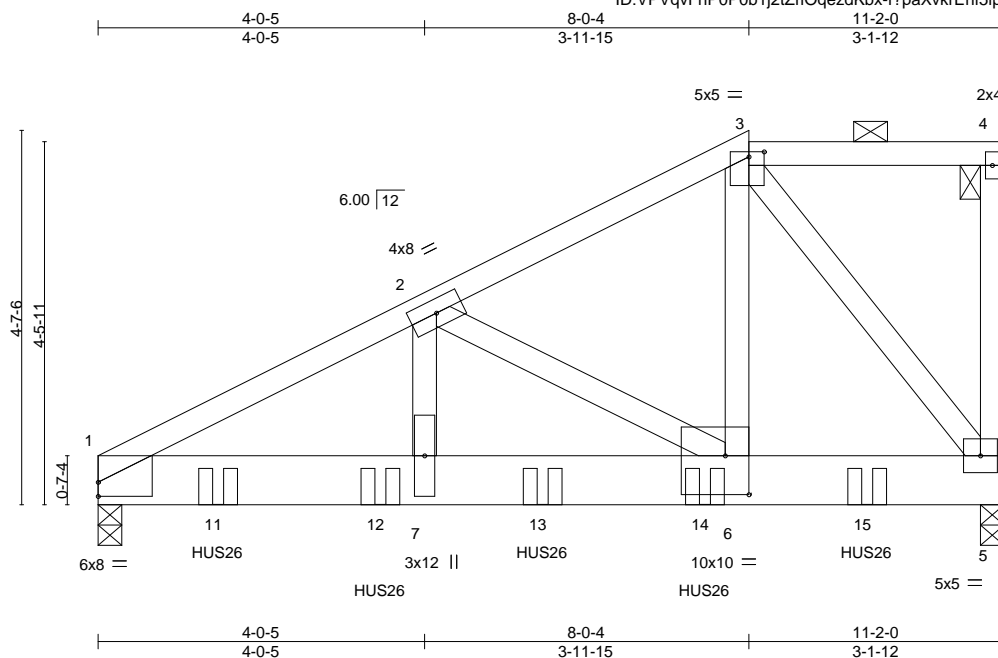
Job 2630561	Truss F3	Truss Type Half Hip Girder	Qty 1	Ply 2	Summit/39 Woodside Ridge/MO 144965907
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:00 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-f?paXvkrEhf5ip2DukXauD81BnintJspNH9rrJzhb4P



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-

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

BRACING-

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

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

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



February 25, 2021

Continued on page 2

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965907
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.
Thu Feb 25 13:03:00 2021
Page 2
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-f?paXvkrEhf5ip2DukXauD81BnintJspNH9rrJzhb4P

LOAD CASE(S)
Standard

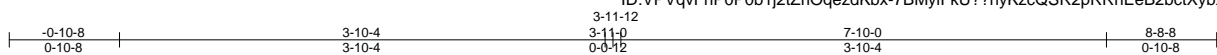
Uniform Loads (plf)
Vert: 1-3=-90, 3-4=-90, 5-8=-20
Concentrated Loads (lb)
Vert: 11=-1670(F) 12=-1662(F) 13=-1662(F) 14=-1662(F) 15=-1662(F)

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965908
2630561	G1	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:01 2021 Page 1

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Scale = 1:18.3

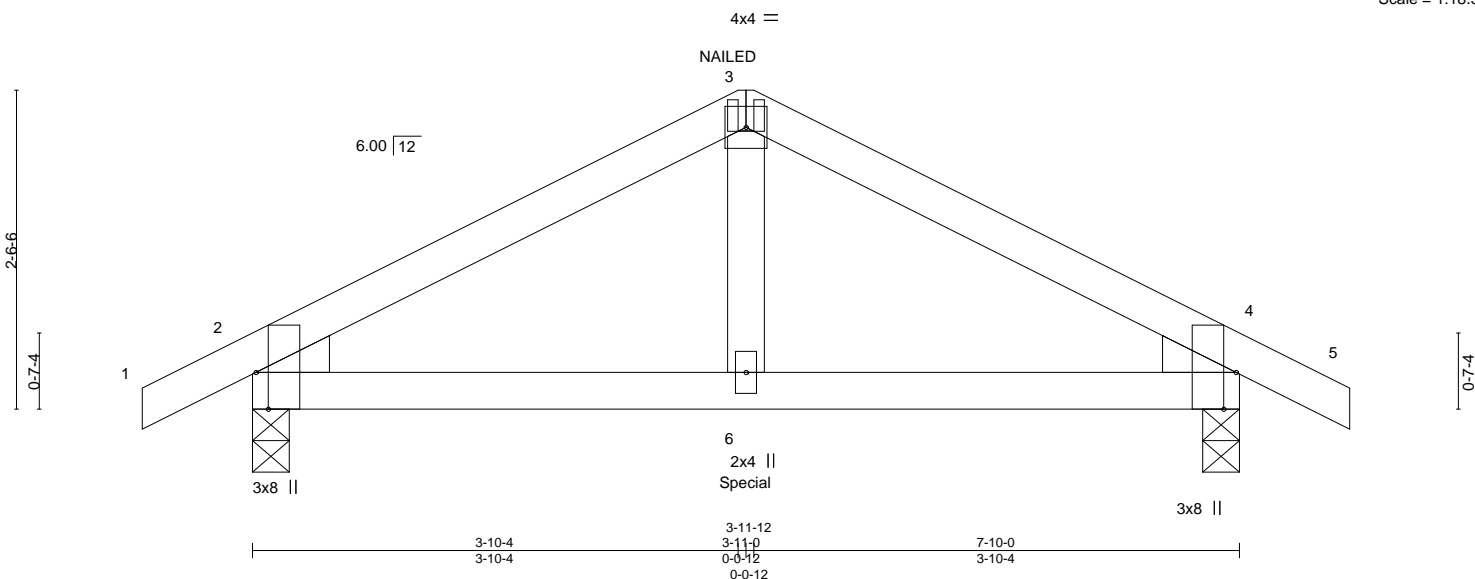


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-3-8,Edge]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	-0.01 6-9 >999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.02 6-9 >999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.15	Horz(CT)	0.01 4 n/a 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
 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-

- 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
- 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 193 lb uplift at joint 2 and 193 lb uplift at joint 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.
- "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) 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.
- 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, 3-5=-90, 7-10=-20
 Concentrated Loads (lb)
 Vert: 6=-555(F) 3=-51(F)



February 25, 2021

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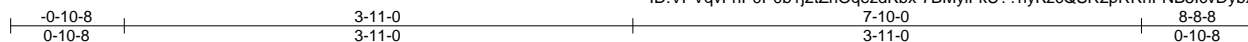
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965909
2630561	G2	Common	3	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

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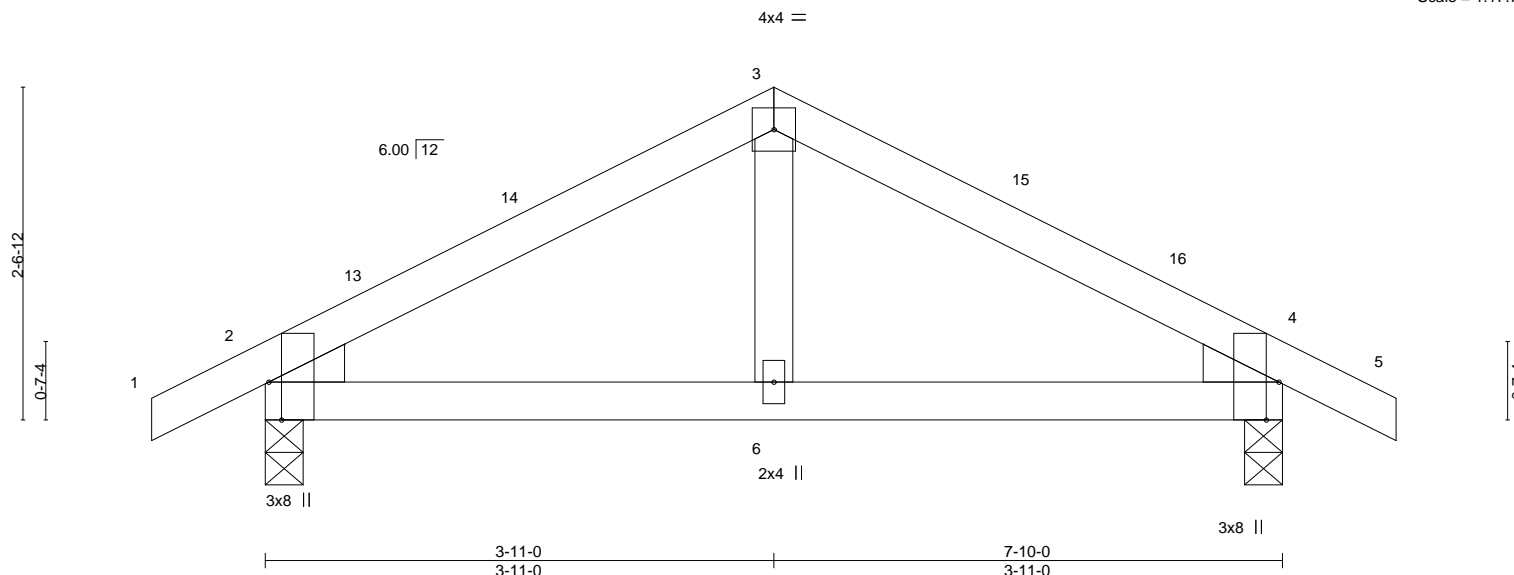


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [4:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19
TCDL 20.0	Lumber DOL	1.15	BC 0.18
BCLL 0.0	Rep Stress Incr	YES	WB 0.04
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) -0.01 6-9 >999 240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

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

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

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



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Chesterfield, MO 63017

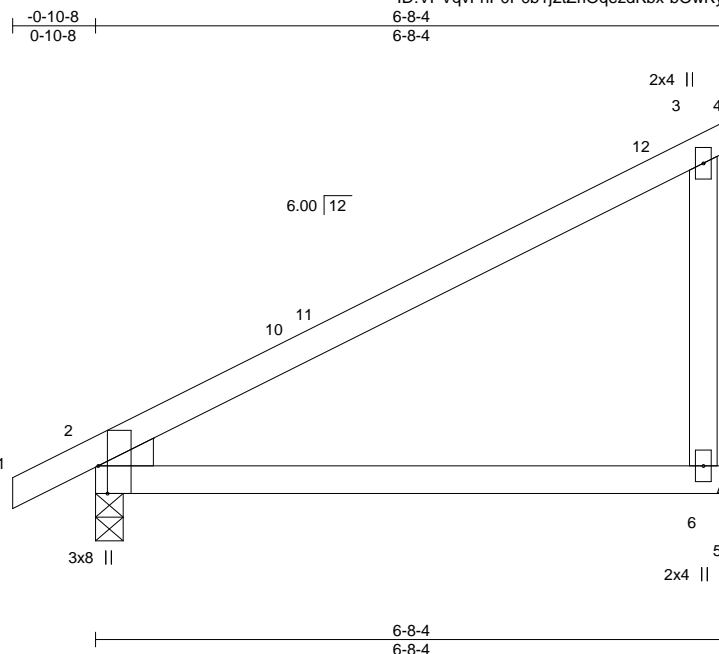
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO
2630561	J1	Jack-Closed	5	1	I44965910
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:02 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-bOwKybl6mlvpy6Bc08a2zeDIJbMLLM25qbeyvCzhb4N



Scale = 1:24.3

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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

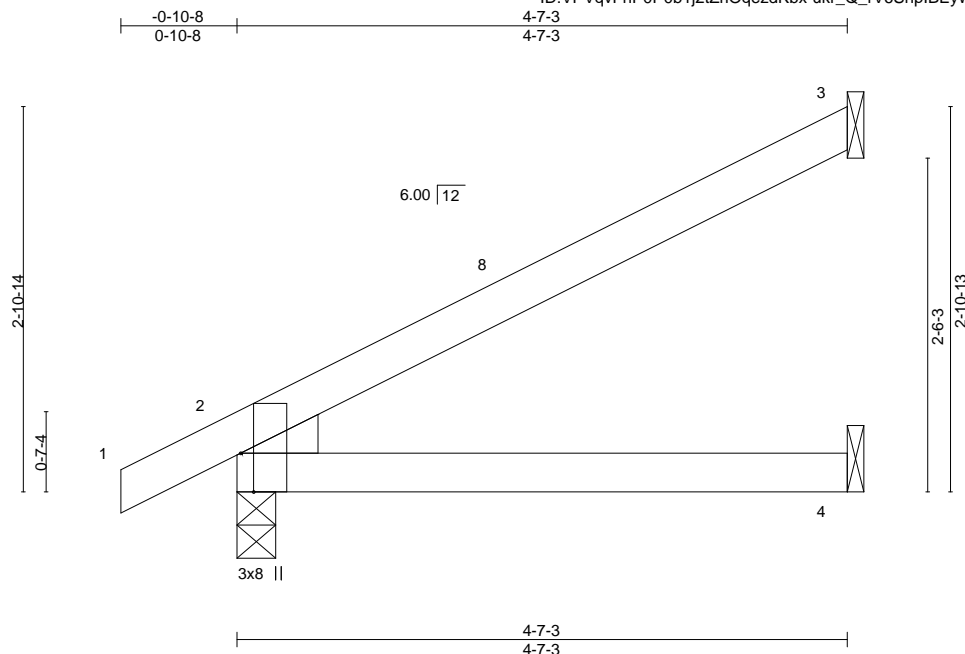
Job 2630561	Truss J2	Truss Type Jack-Open	Qty 3	Ply 1	Summit/39 Woodside Ridge/MO I44965911
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:09 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-ukr_Q_rV6SnplBEyw7Chl70ZFPp_UXn7RBqpfz4G



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 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=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

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

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

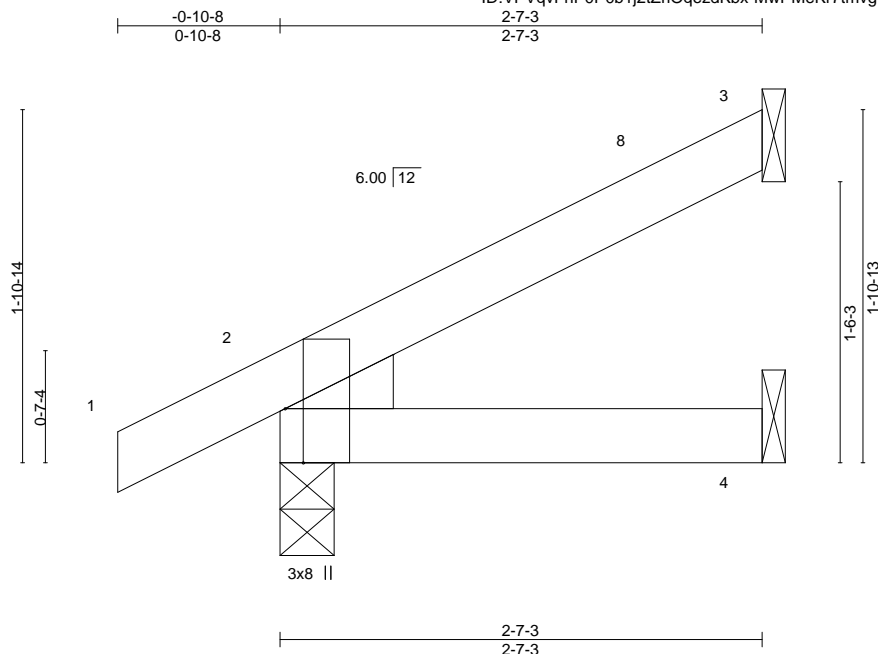
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J3	Truss Type Jack-Open	Qty 7	Ply 1	Summit/39 Woodside Ridge/MO I44965912
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:10 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-MwPMekr7tmvgvLo8UqjwIKZoppB5D_1HgraNBkzhb4F



Scale = 1:12.4

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 0.08
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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

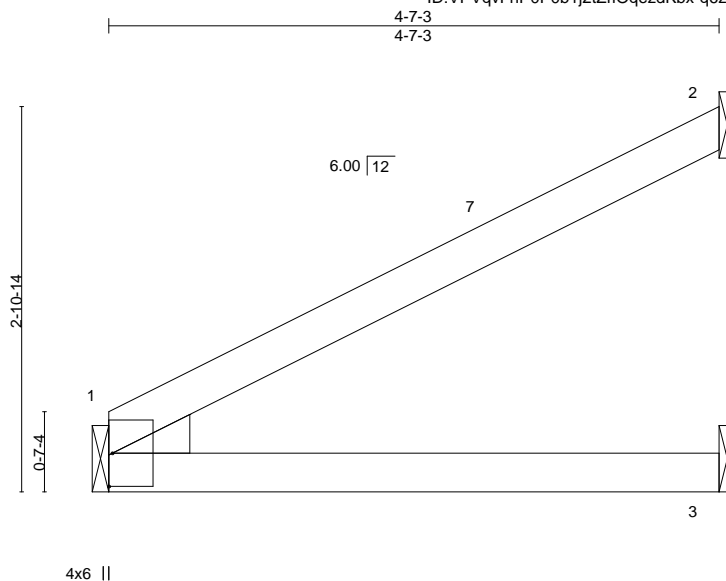
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO
2630561	J4	Jack-Open	1	1	I44965913
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:11 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-q6zkrsgle31XXVNL2XE9qY5vWDT?yRHQuVKwjAzhb4E



Scale = 1:17.4

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 0.34	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

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

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



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Chesterfield, MO 63017

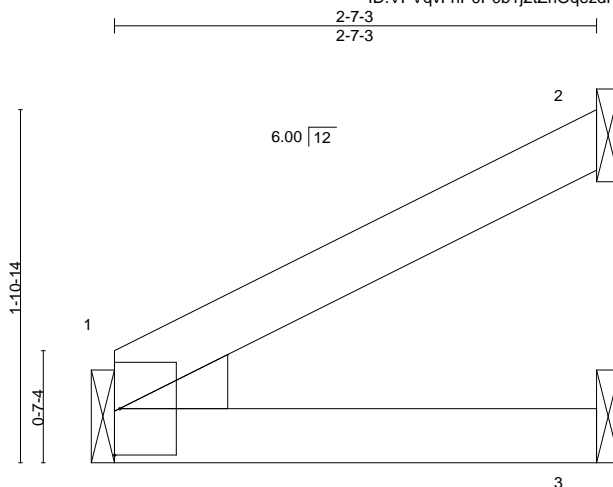
Job 2630561	Truss J5	Truss Type Jack-Open	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965914
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:11 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-q6zkrsgle31XXVNL2XE9qY5zNDWvyRHQuVKwjAzhb4E



Scale = 1:12.4

4x6 ||

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

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

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



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Chesterfield, MO 63017

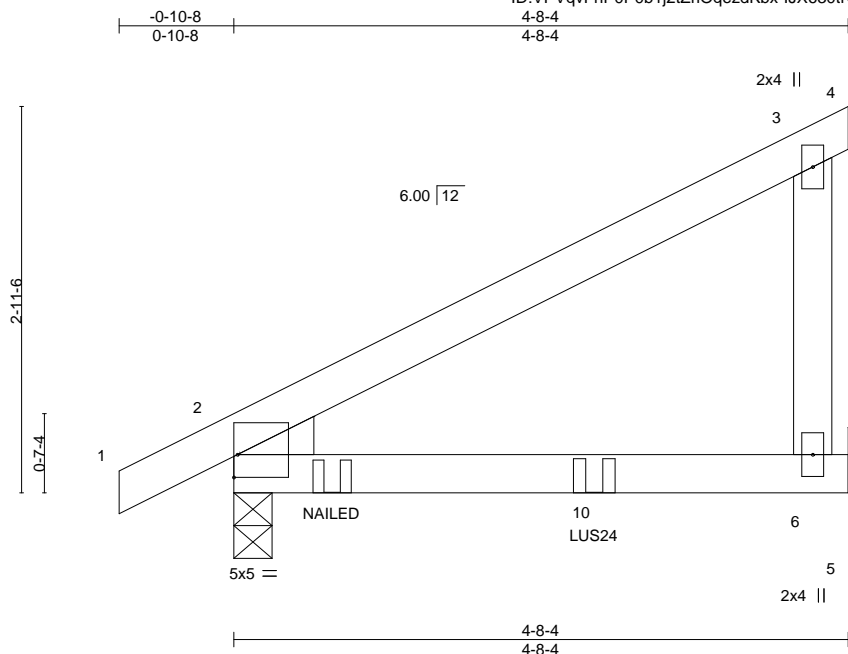
Job 2630561	Truss J6	Truss Type Jack-Closed Girder	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965915
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:12 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-IJX630tNPN9O9fyXbFIONle1GdiWhuXa793UGdzhb4D



Scale = 1:17.6

Plate Offsets (X,Y)-- [2:Edge,0-2-1]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.05	6-9	>969	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.12	6-9	>443	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: 16 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 4-8-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 6=Mechanical, 2=0-3-8
Max Horz 2=111(LC 7)
Max Uplift 6=82(LC 8), 2=71(LC 8)
Max Grav 6=412(LC 1), 2=521(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; 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 82 lb uplift at joint 6 and 71 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) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 2-9-0 from the left end to connect truss(es) to front face of bottom chord.
- 7) Fill all nail holes where hanger is in contact with lumber.
- 8) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 9) 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=-40, 5-7=-20
Concentrated Loads (lb)
Vert: 9=-122(F) 10=-230(F)



February 25, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

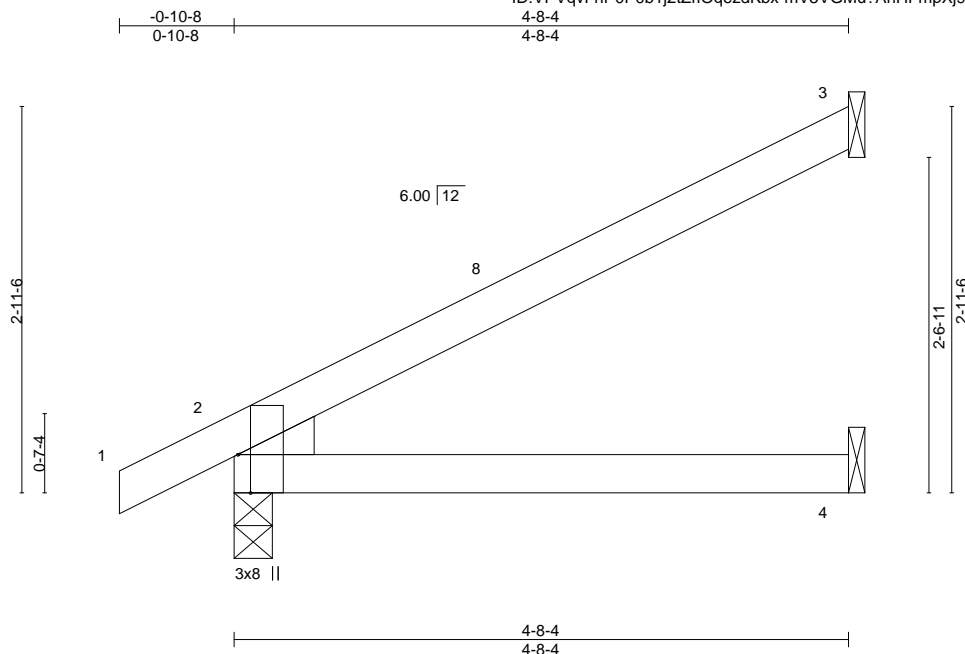
Job 2630561	Truss J7	Truss Type Jack-Open	Qty 8	Ply 1	Summit/39 Woodside Ridge/MO I44965916
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:13 2021 Page 1

ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-mV5VGMu?AhHFmpXj9yGdwzBF?09lQLnjMpp1o3zhh4C



Scale = 1:17.6

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	0.34	Vert(LL)	0.04	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.26	Vert(CT)	-0.06	4-7	>942	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-AS							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

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J8	Truss Type Jack-Open	Qty 4	Ply 1	Summit/39 Woodside Ridge/MO 144965917
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:13 2021 Page 1					
Job Reference (optional) ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-mV5VGMu?AhHFmpXj9yGdwzBDp08TQLnjMpp1o3zhh4C					

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0-10-8	2-3-8	2-4-12

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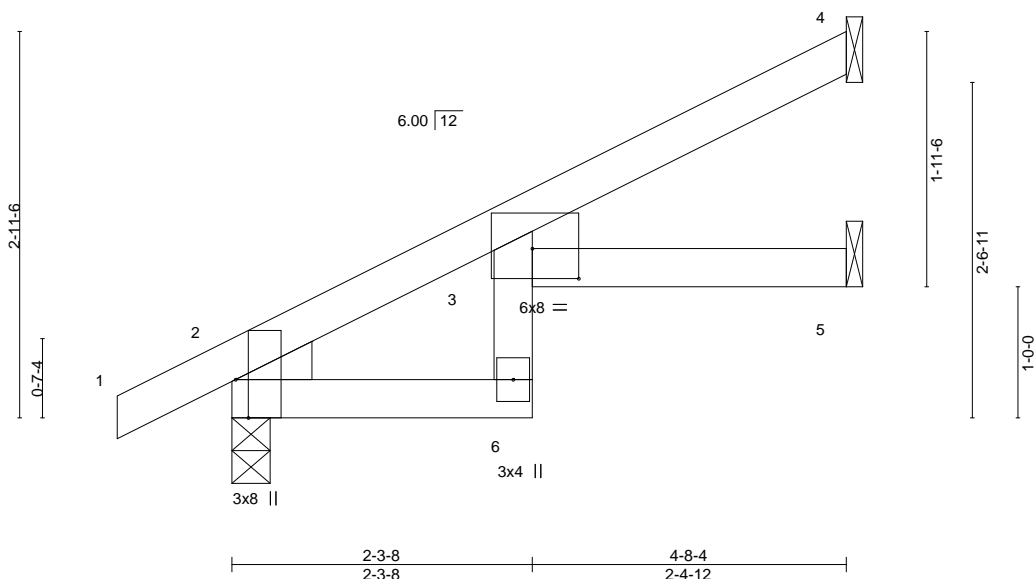


Plate Offsets (X,Y)--		[2:0-3-8,Edge], [3:0-4-4,0-2-12]							
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc) l/defl L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.48		Vert(LL)	0.06 6 >949 240	MT20	197/144
TCDL 20.0		Lumber DOL	1.15	BC 0.35		Vert(CT)	-0.09 6 >609 180		
BCLL 0.0		Rep Stress Incr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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J9	Truss Type Jack-Open	Qty 2	Ply 1	Summit/39 Woodside Ridge/MO 144965918
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:14 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrI0qezdKbx-EhftIudx_P6Oy6wjgnsSAjUZQYz9o1sbSYakVzhb4B



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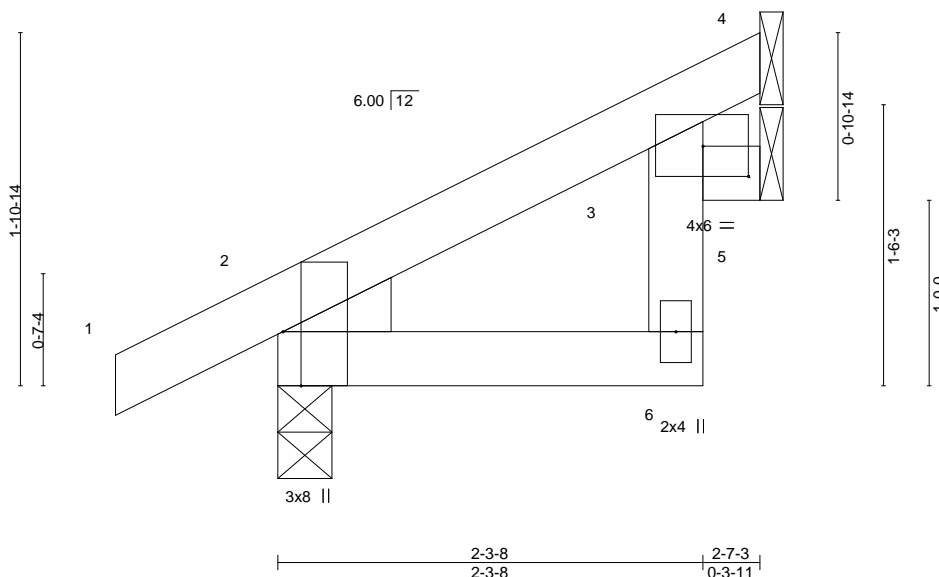


Plate Offsets (X,Y)-- [2:0-3-8,Edge], [3:0-2-15,0-1-15]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	-0.00	9	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.01	6	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	5	n/a
BCDL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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J10	Truss Type Jack-Open	Qty 4	Ply 1	Summit/39 Woodside Ridge/MO I44965919
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:03 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-3aUjAxmkXc1gaGmoas5HWsmYo_mK4pIF3FNVRezhh4M

Job Reference (optional)

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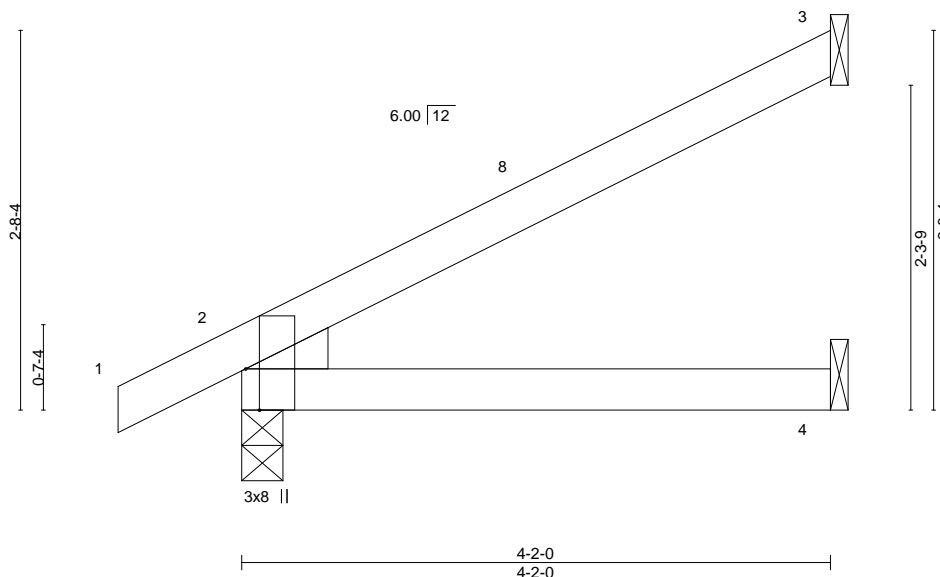


Plate Offsets (X,Y)--		[2:0-3-8,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26
TCDL 20.0	Lumber DOL	1.15	BC 0.21
BCLL 0.0	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2018/TPI2014	Matrix-AS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.02 4-7 >999 240
			Vert(CT) -0.04 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

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

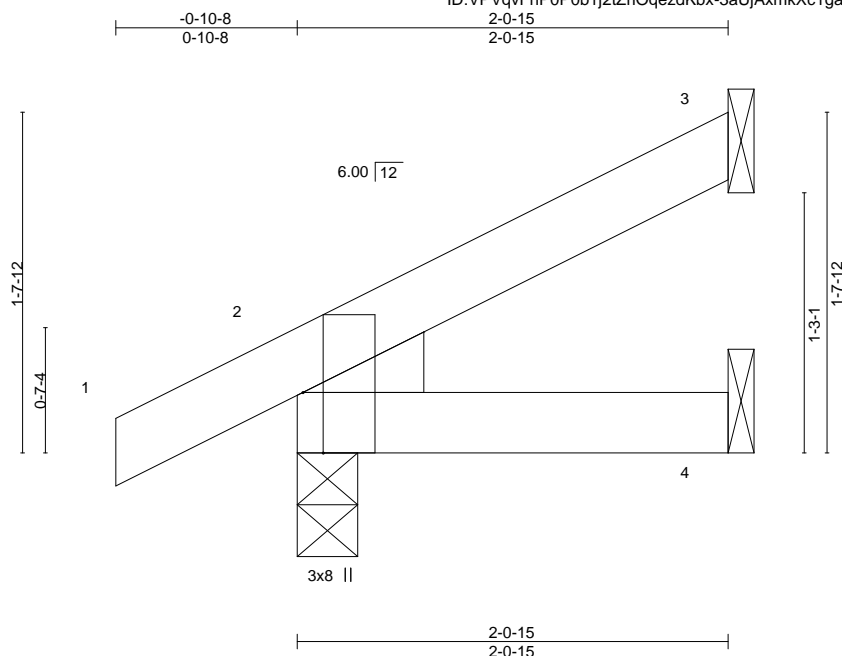
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J11	Truss Type Jack-Open	Qty 5	Ply 1	Summit/39 Woodside Ridge/MO 144965920
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:03 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-3aUjAxmKXc1gaGmoas5HWsmbo_py4pIF3FNVRezhh4M



Scale = 1:11.1

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 0.07		Vert(LL)	-0.00 7	>999	240	MT20	197/144
TCDL 20.0		Lumber DOL	1.15	BC 0.04		Vert(CT)	-0.00 7	>999	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.00 3	n/a	n/a		
BCDL 10.0		Code IRC2018/TPI2014		Matrix-MP						Weight: 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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

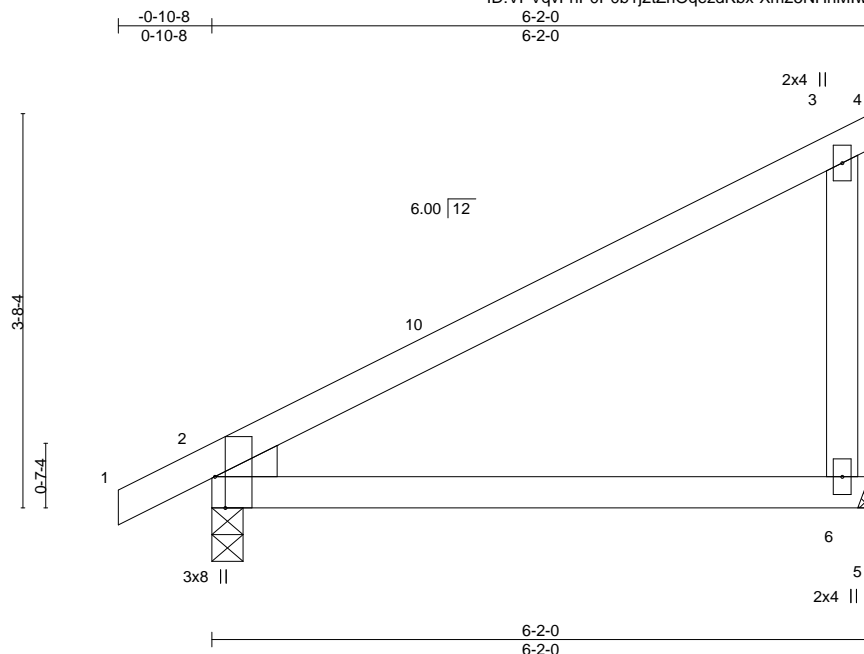
Job 2630561	Truss J12	Truss Type Jack-Closed	Qty 2	Ply 1	Summit/39 Woodside Ridge/MO 144965921
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:04 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-Xm25NHnMlw9XBQL?7ZcW23JebO31pGYOHv72_4zhb4L



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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	0.58	Vert(LL)	0.08	6-9	>885	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.15	6-9	>465	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J13	Truss Type Jack-Open	Qty 3	Ply 1	Summit/39 Woodside Ridge/MO 144965922
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:05 2021 Page 1

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-0-10-8
0-10-8

4-0-15
4-0-15

Scale: 3/4"=1'

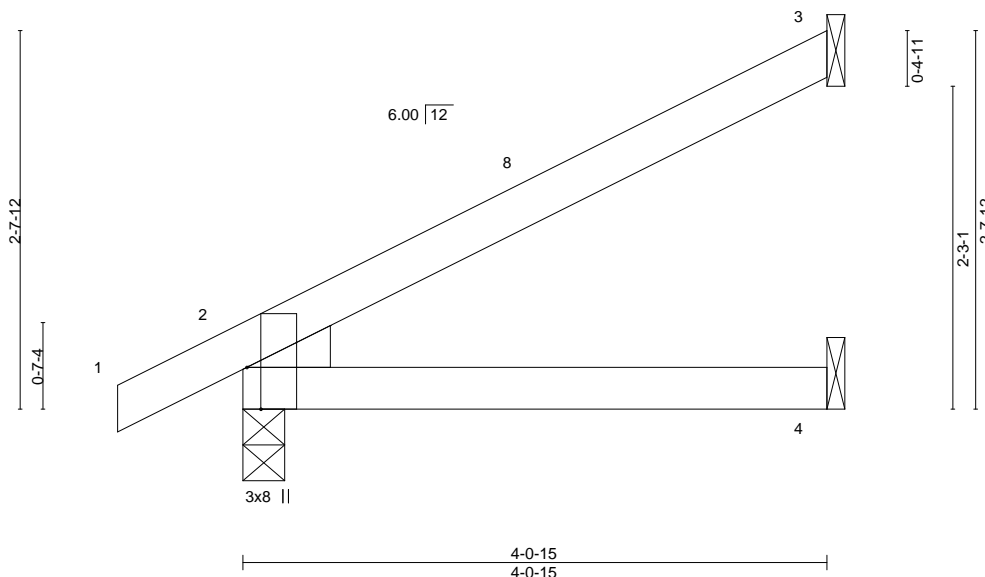


Plate Offsets (X,Y)-- [2:0-3-8,Edge]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.02	4-7	>999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	4-7	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.00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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

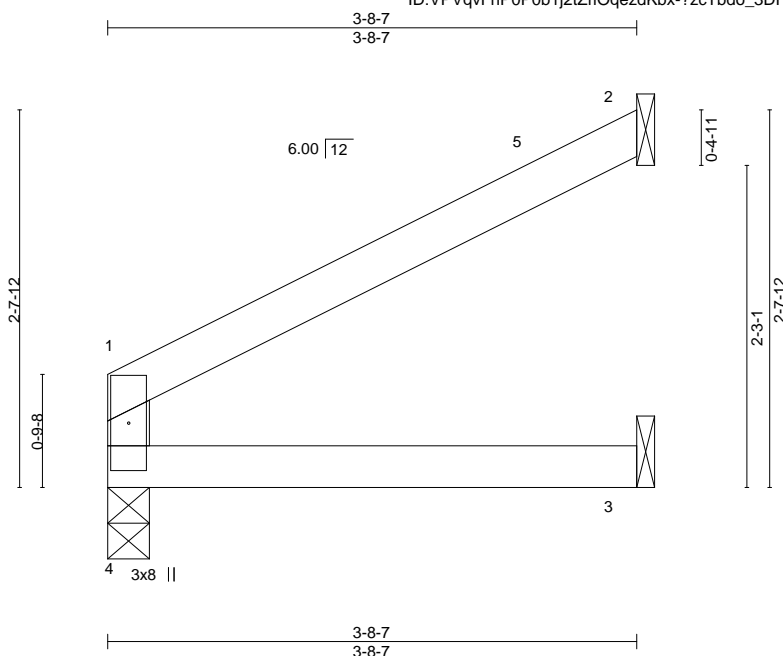
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965923
2630561	J14	Jack-Open	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:05 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrOqezdKbx-?zcTbdo_3DHNpawBhH7lbHrvcoSjYjoYWZscWWz4K



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
TCDL 20.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.02	3-4	>999	180	197/144
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-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-7 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=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

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

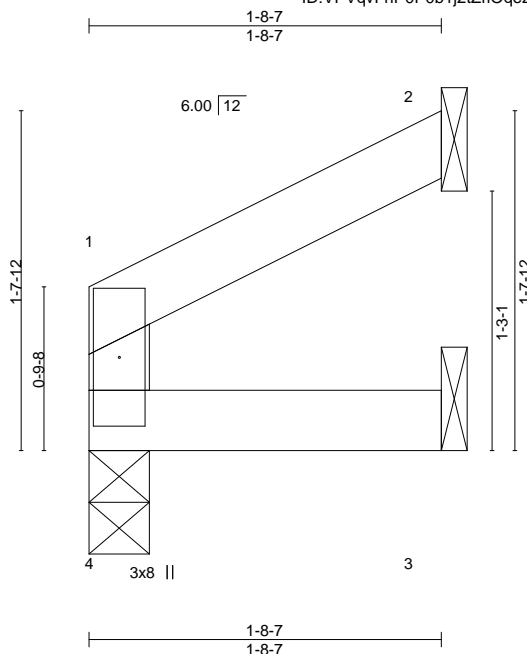
Job 2630561	Truss J15	Truss Type Jack-Open	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965924
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:06 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-T9AroyocqXPERkVNF_e_7U07QCqeHA2hDc92zzhb4J



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	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

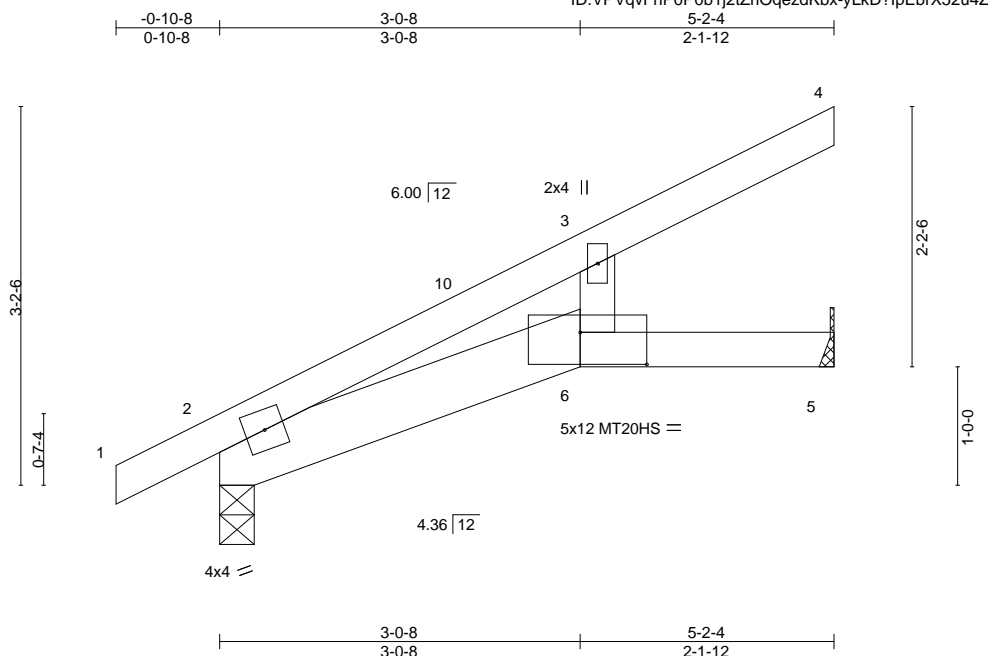
Job 2630561	Truss J16	Truss Type Jack-Open	Qty 2	Ply 1	Summit/39 Woodside Ridge/MO I44965925
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:07 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-yLkD?lpEbrX52u4Zpi9DgixDbczl0dLr_tLjaPzhb4l



Scale = 1:19.5

Plate Offsets (X,Y)--		[6:0-6-12,0-3-4]												
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)	0.09	6	>713	240	MT20	197/144		
TCDL	20.0	Lumber DOL 1.15		BC	0.84	Vert(CT)	-0.14	6	>430	180	MT20HS	148/108		
BCLL	0.0	Rep Stress Incr YES		WB	0.06	Horz(CT)	0.05	5	n/a	n/a				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 17 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
5-6: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2

BRACING-

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

REACTIONS.

(size) 2=0-3-8, 5=Mechanical
Max Horz 2=115(LC 12)
Max Uplift 2=41(LC 12), 5=73(LC 12)
Max Grav 2=367(LC 1), 5=281(LC 1)

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

WEBS 3-6=446/350

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 5-2-4 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
- 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) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 2 and 73 lb uplift at joint 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



February 25, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J17	Truss Type Jack-Open	Qty 3	Ply 1	Summit/39 Woodside Ridge/MO I44965926
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:07 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-yLkD?lpEbrX52u4Zpi9DgixHbc9J0d3r_tLjaPzhb4I

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0-10-8 3-0-8 0-0-11

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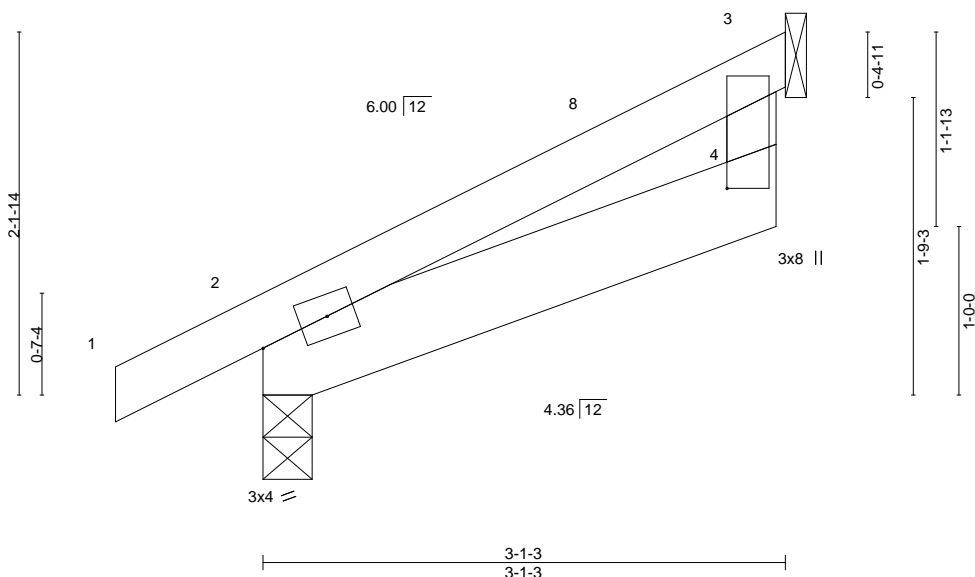


Plate Offsets (X,Y)--		[4:0-11-6,2-9-0]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)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

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J18	Truss Type Jack-Open	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965927
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

3-0-8
3-0-8
3-1-3
0-0-11

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:08 2021 Page 1
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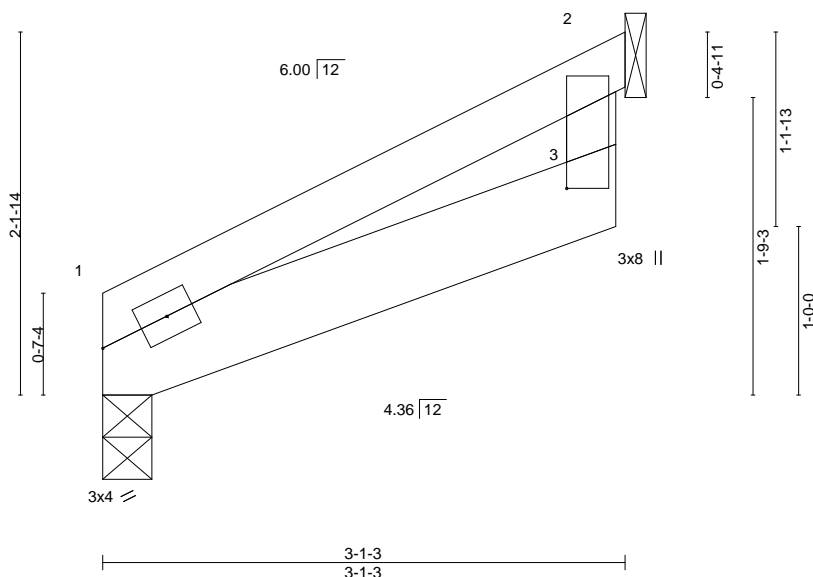


Plate Offsets (X,Y)-- [3:0-11-6,2-9-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	6	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.00	3-6	>999
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	1	n/a
BCDL 10.0	Code	IRC2018/TPI2014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

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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 2630561	Truss J19	Truss Type Jack-Open	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965928
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:08 2021 Page 1

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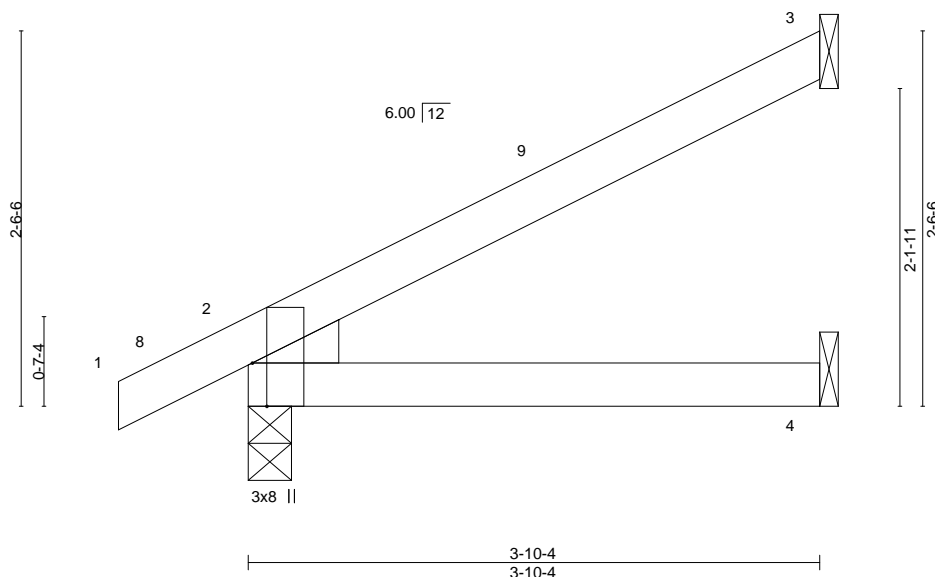


Plate Offsets (X,Y)--		[2:0-3-8,Edge]									
LOADING (psf)		SPACING-		CSI.		DEFL.		in (loc)		l/defl	L/d
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.02	4-7	>999	240	
TCDL	20.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	4-7	>999	180	
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a	
BCDL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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss J21	Truss Type Jack-Open	Qty 4	Ply 1	Summit/39 Woodside Ridge/MO I44965929
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:10 2021 Page 1

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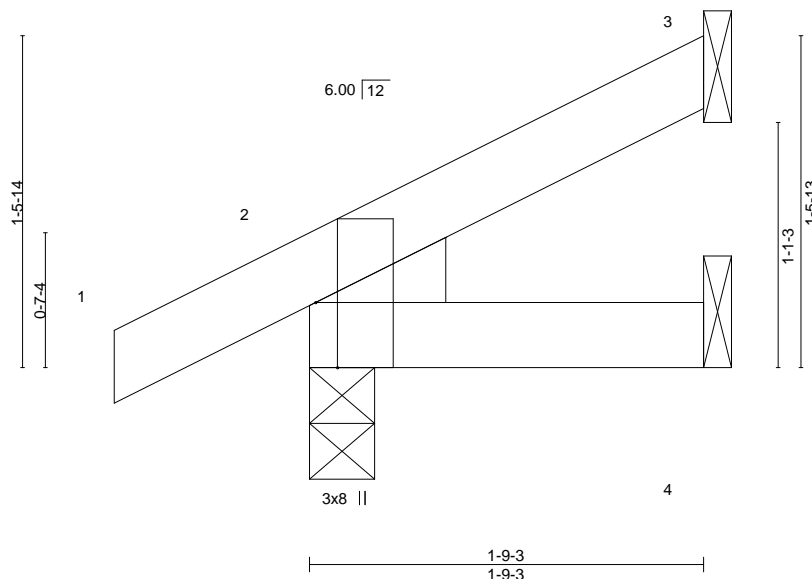


Plate Offsets (X,Y)--		[2:0-3-8,Edge]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0		Plate Grip DOL	1.15	TC 0.07		Vert(LL)	-0.00 7	>999	240	MT20	197/144
TCDL 20.0		Lumber DOL	1.15	BC 0.03		Vert(CT)	-0.00 7	>999	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.00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

LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO
2630561	LG1	GABLE	1	1	I44965930
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

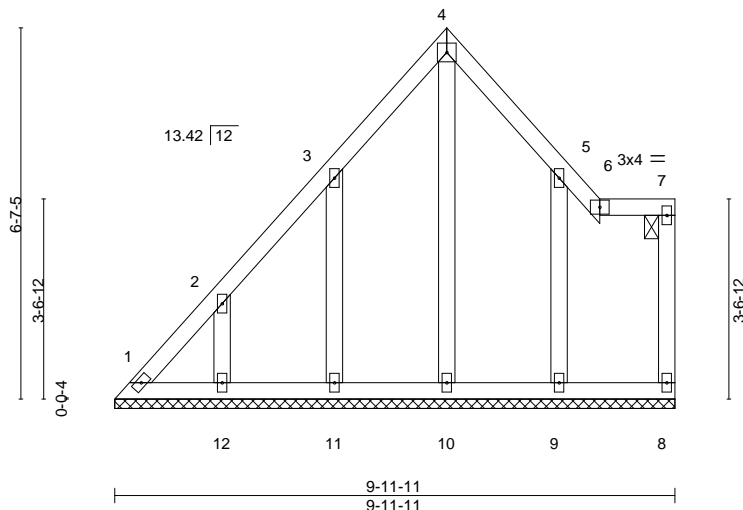
8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:15 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-juDFh1vGilYz06h6HNI5?OGfXqvjuDg0p6l8sxzhb4A



4x4 =

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	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	-0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 48 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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-

- 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 3-3-15, 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
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 10 except (jt=lb) 1=123, 11=149, 12=142, 9=113.
- 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) 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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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

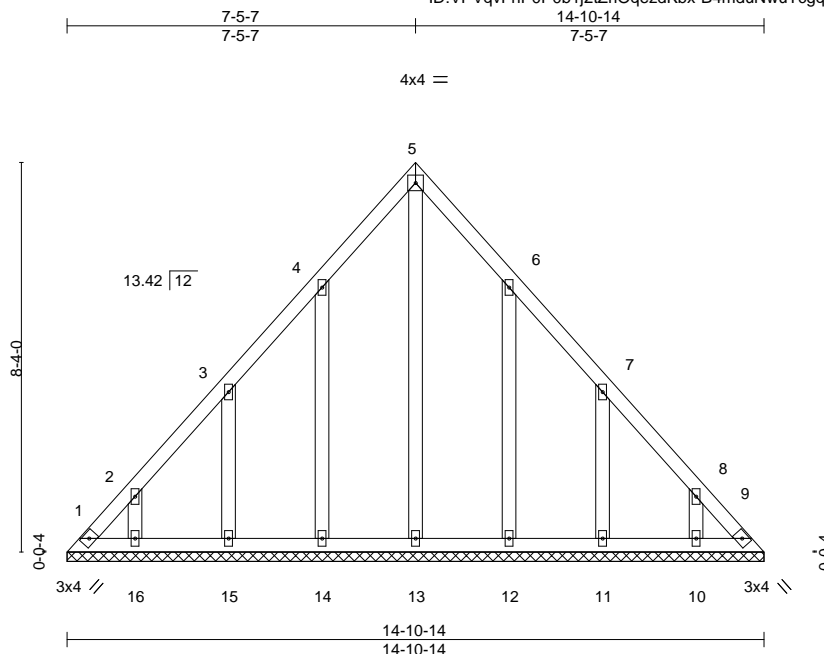
Job 2630561	Truss LG2	Truss Type GABLE	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965931
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:16 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-B4mduNwuTcgqGGIq5qKXboqVEF1dgk92m1hPOzhb49



Scale = 1:49.3

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 0.07	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.00	9	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
									Weight: 73 lb FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 14-10-14.
(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

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

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



16023 Swingley Ridge Rd
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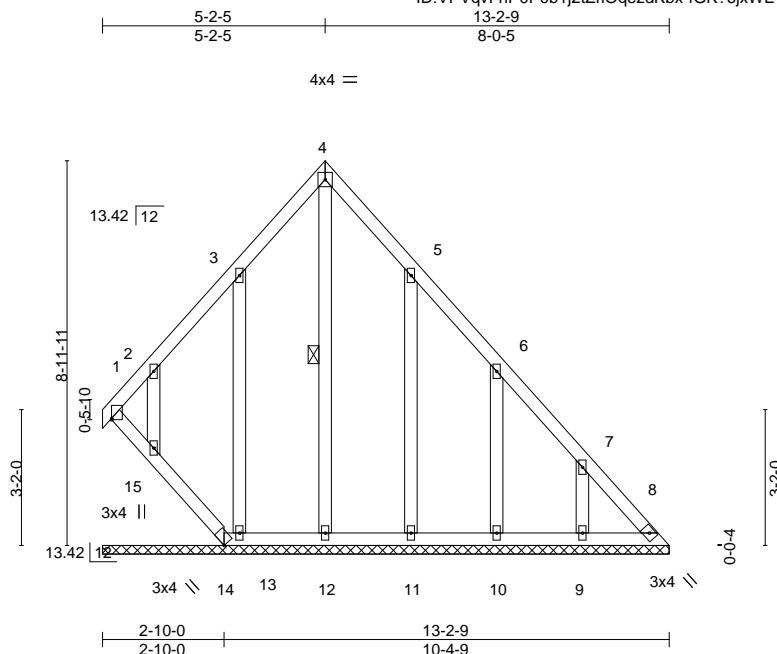
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO
2630561	LG3	GABLE	1	1	I44965932
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:17 2021 Page 1

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Scale = 1:53.7

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 0.08	Vert(LL)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.17	Horz(CT)	0.01	8	n/a	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-

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) 0-4-11 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

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) 8, 1 except (jt=lb) 14=234, 13=158, 15=183, 11=143, 10=145, 9=146.

7) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 15.

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.



February 25, 2021

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

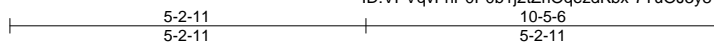
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Chesterfield, MO 63017

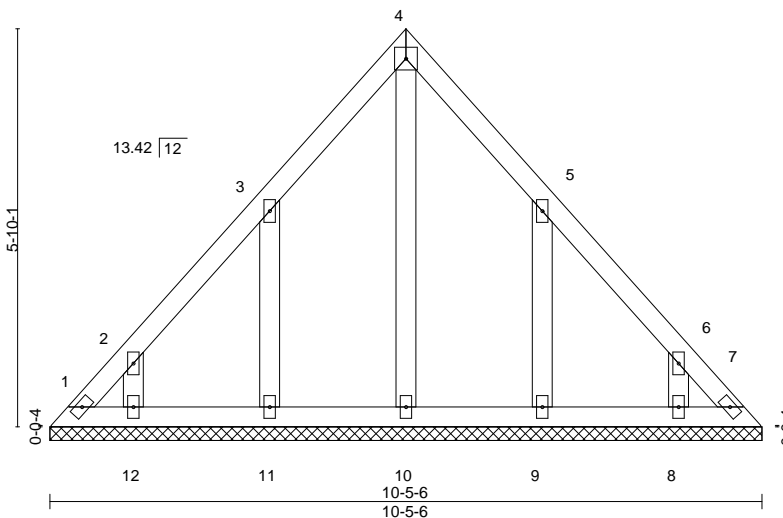
Job 2630561	Truss LG4	Truss Type GABLE	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965933
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:18 2021 Page 1
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4x4 =

Scale = 1:33.8



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 0.06	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	7	n/a	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

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

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



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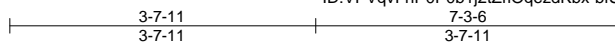
Job 2630561	Truss LG5	Truss Type GABLE	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965934
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

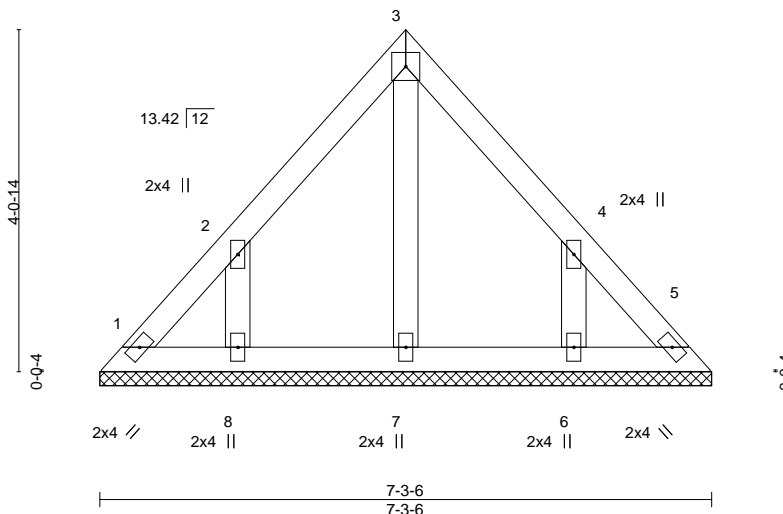
8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:19 2021 Page 1

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4x4 =

Scale = 1:27.4



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 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
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-

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 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

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Chesterfield, MO 63017

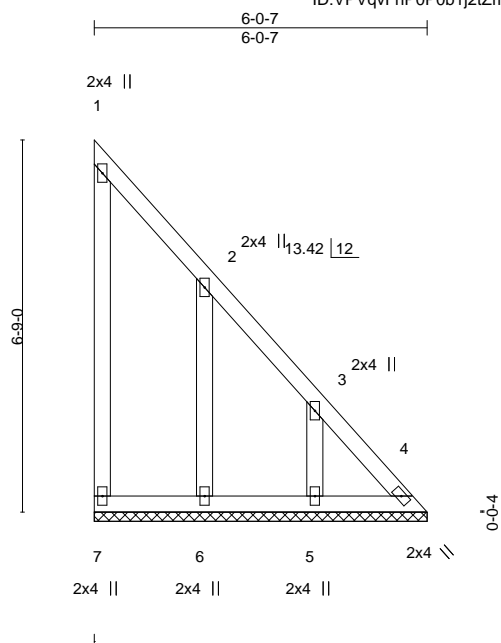
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO
2630561	LG6	GABLE	1	1	I44965935
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:20 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-3r08klzOXqAF6tZ33wuGiRzQNrcZUllzO?vY9zhb45



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	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	4	n/a	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-

- 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 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
- 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) 7, 4 except (jt=lb) 6=151, 5=147.
- 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

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

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



16023 Swingley Ridge Rd
 Chesterfield, MO 63017

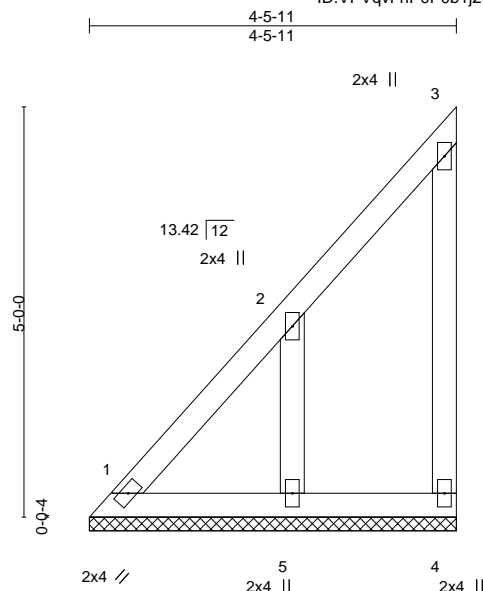
Job 2630561	Truss LG7	Truss Type GABLE	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965936
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:20 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQeqzdKbx-3r08klzOXqAF6tZ33wuGiRzUdrc?ZVplzO?vY9zhb45



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	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	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: 20 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-5-11 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

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

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

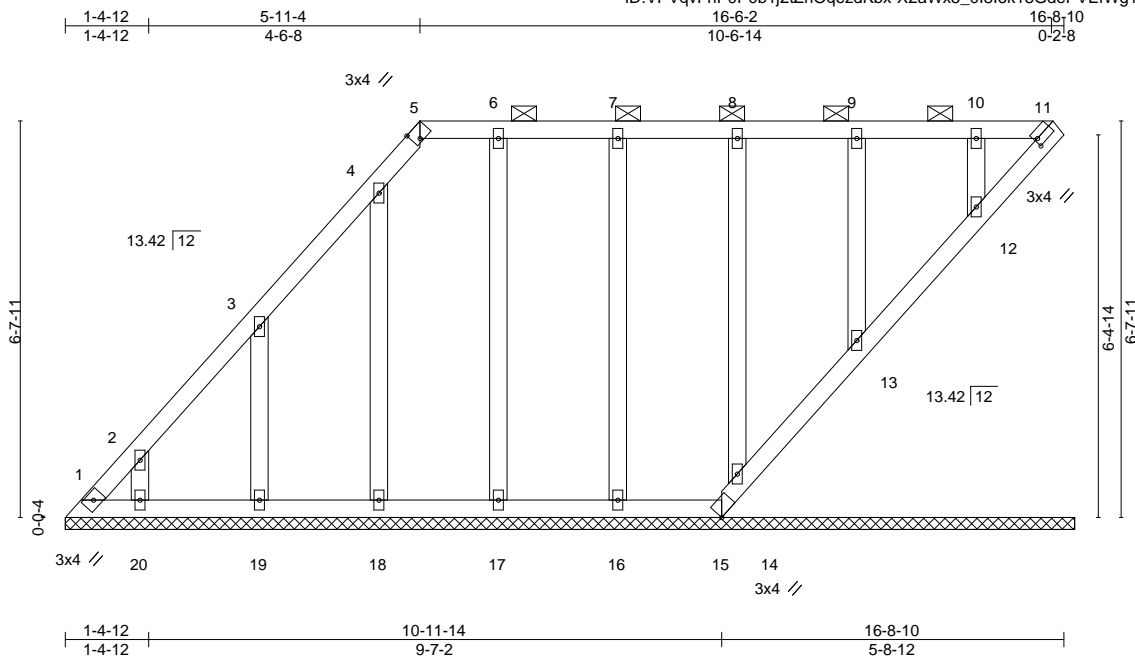


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss LG8	Truss Type GABLE	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965937
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:21 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-X2aWx5_0l8l6k18GdePVEWg1FyDlwjuC2lS4bzhb44



Scale = 1:38.6

Plate Offsets (X,Y)-- [5:0-1-6,Edge], [11:0-0-10,0-1-8]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a
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				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 81 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 2-0-0 oc purlins (6-0-0 max.): 5-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

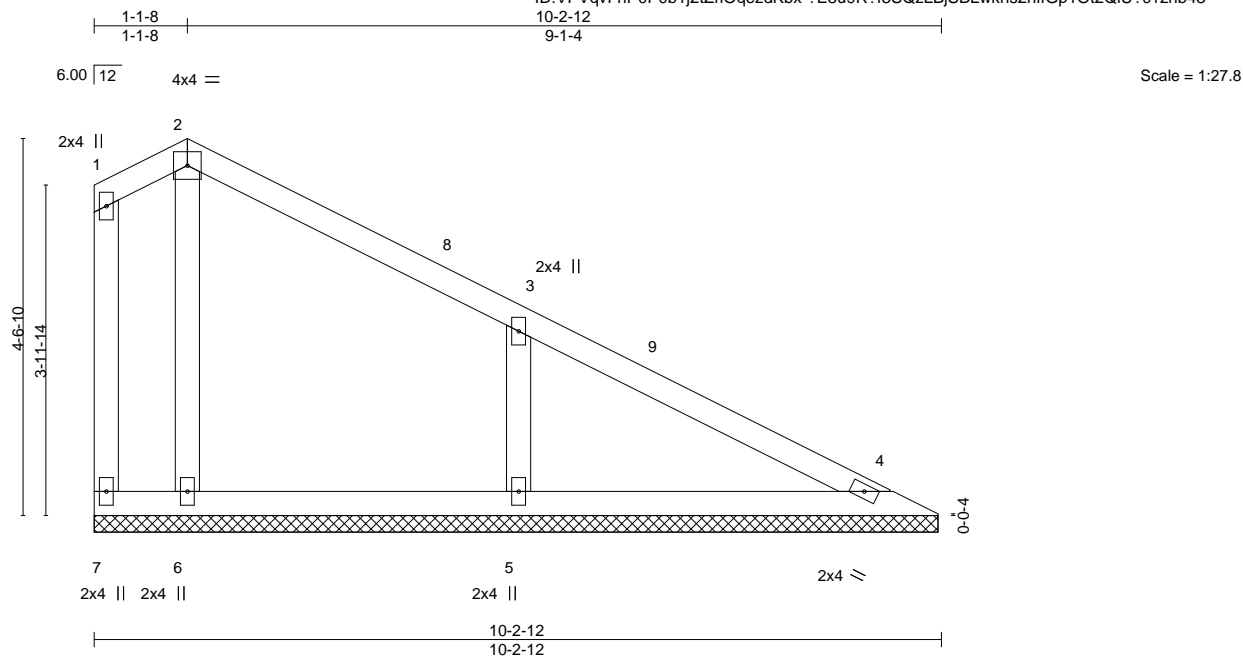
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017



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) n/a - n/a 999	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.14	Vert(CT) n/a - n/a 999		
BCLL 0.0	Rep Stress Incr YES	WB 0.07	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S		Weight: 35 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	
WEBS	2x4 SPF No.2		Rigid ceiling directly applied or 6-0-0 oc bracing.
OTHERS	2x4 SPF No.2		

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)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 BOT CHORD 6-7=-130/253, 5-6=-130/253, 4-5=-130/253
 WEBS 3-5=-452/281

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.



February 25, 2021

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



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Chesterfield, MO 63017

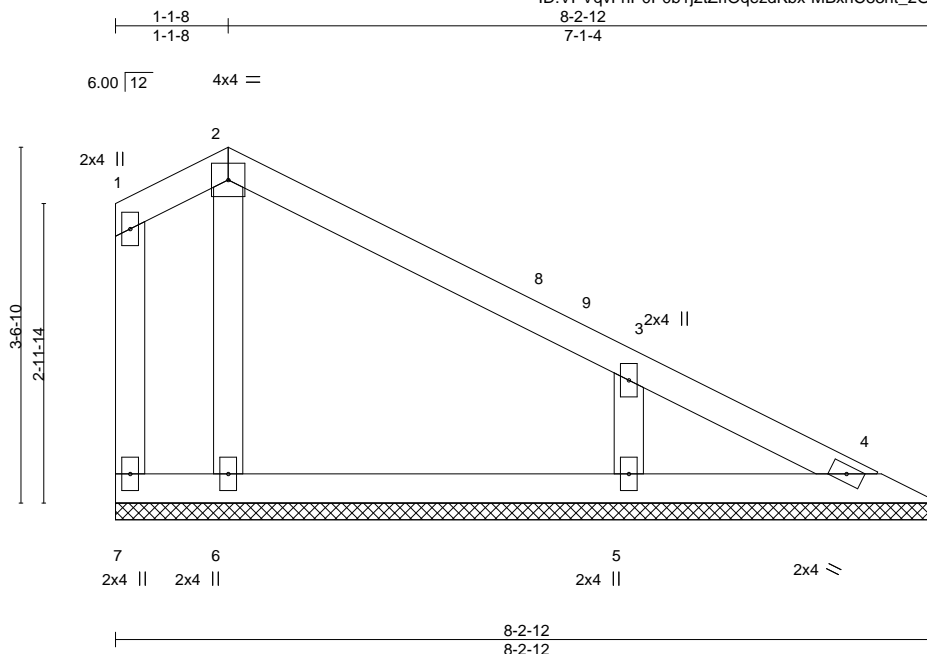
Job 2630561	Truss V2	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965939
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:27 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIQezdKbx-MBxnC83nt_2GSycP_vWvUwmgpg_xigTna_CmlFznb4_



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-

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 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-

- 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 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
- 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=134.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

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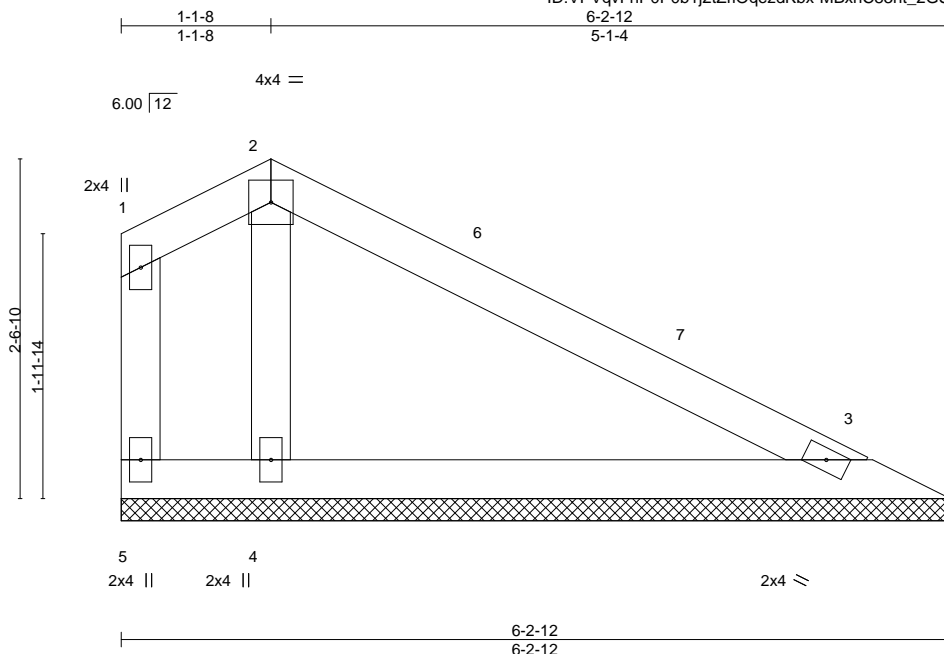
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss V3	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965940
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:27 2021 Page 1
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Scale = 1:17.3

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 0.49	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 18 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 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)

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) 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
- 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) 5, 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

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

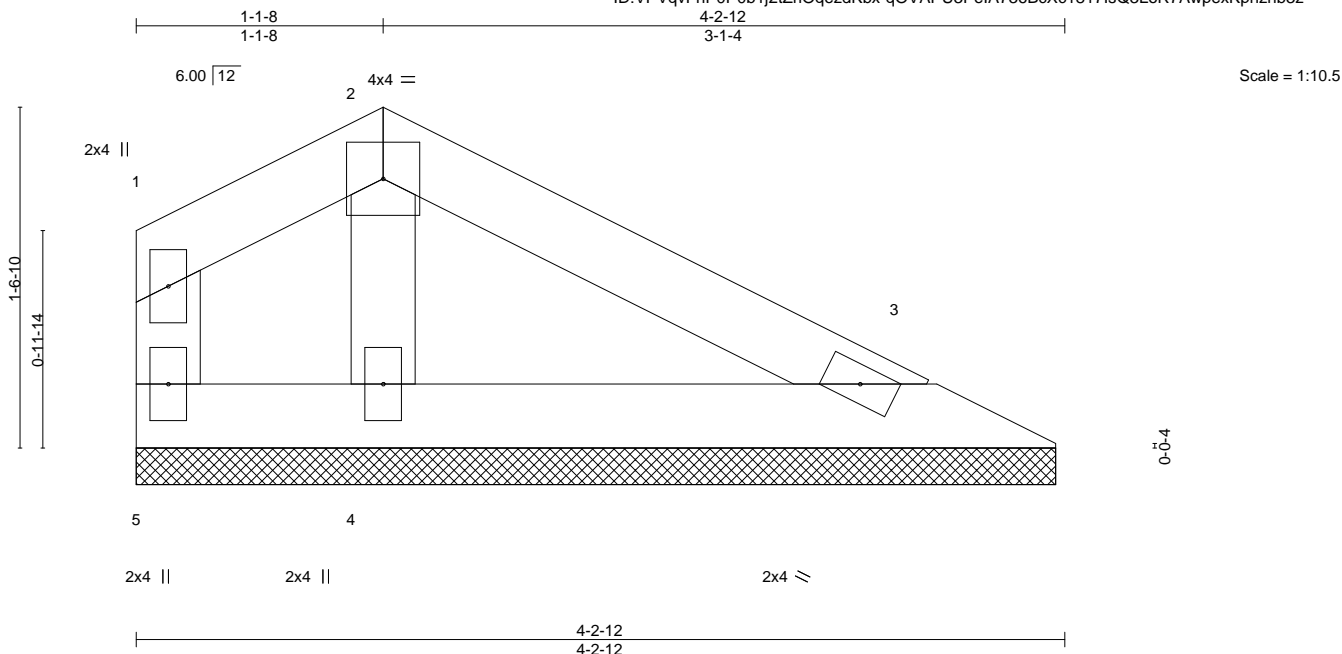
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965941
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:28 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-qOVAPU3PeIA736BcXc1817IsQ3LoR7AwpeXKphzhb3z



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 0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 11 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-2-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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)

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=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.



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

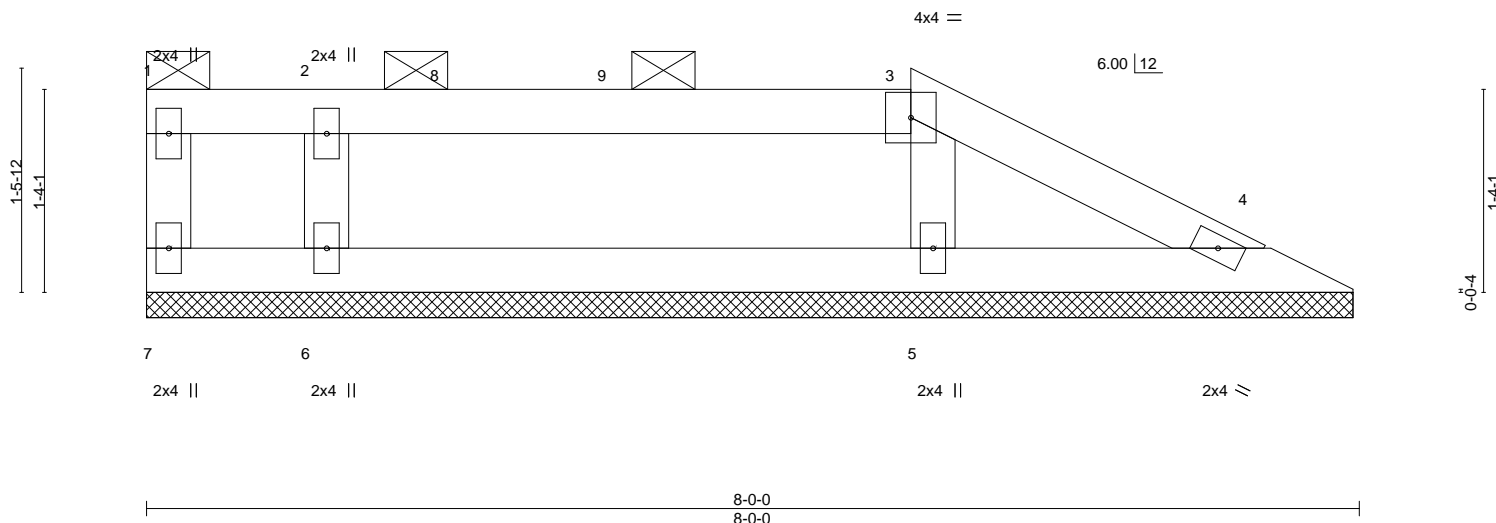
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965942
2630561	V5	Valley	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:29 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIOeqzdKbx-la3Ydq42PblzhGlo5JZNZLr0TTgPAa_41htL7zhb3y



Scale = 1:15.2



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 0.24	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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss V6	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO I44965943
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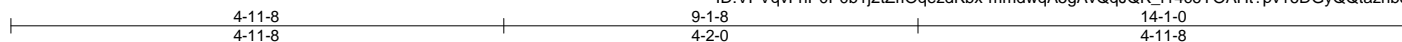
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

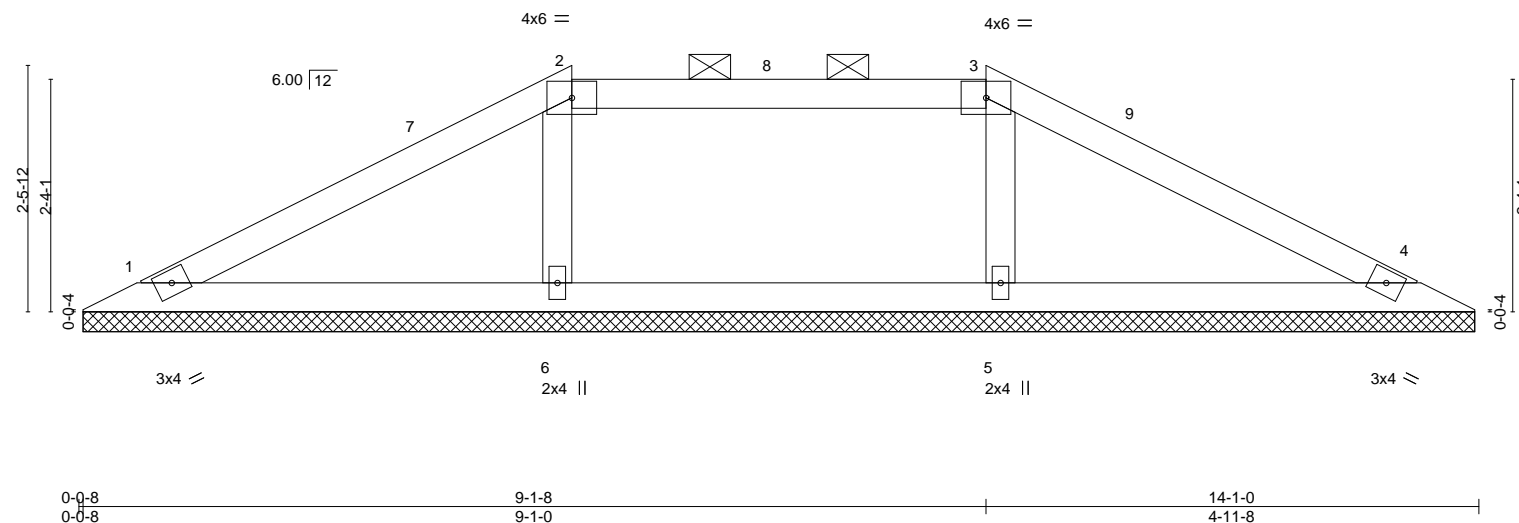
8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:30 2021 Page 1

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Job Reference (optional)



Scale = 1:23.2



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 0.30	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-

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 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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-

- 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) 0-7-9 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
- 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, 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.
- 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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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

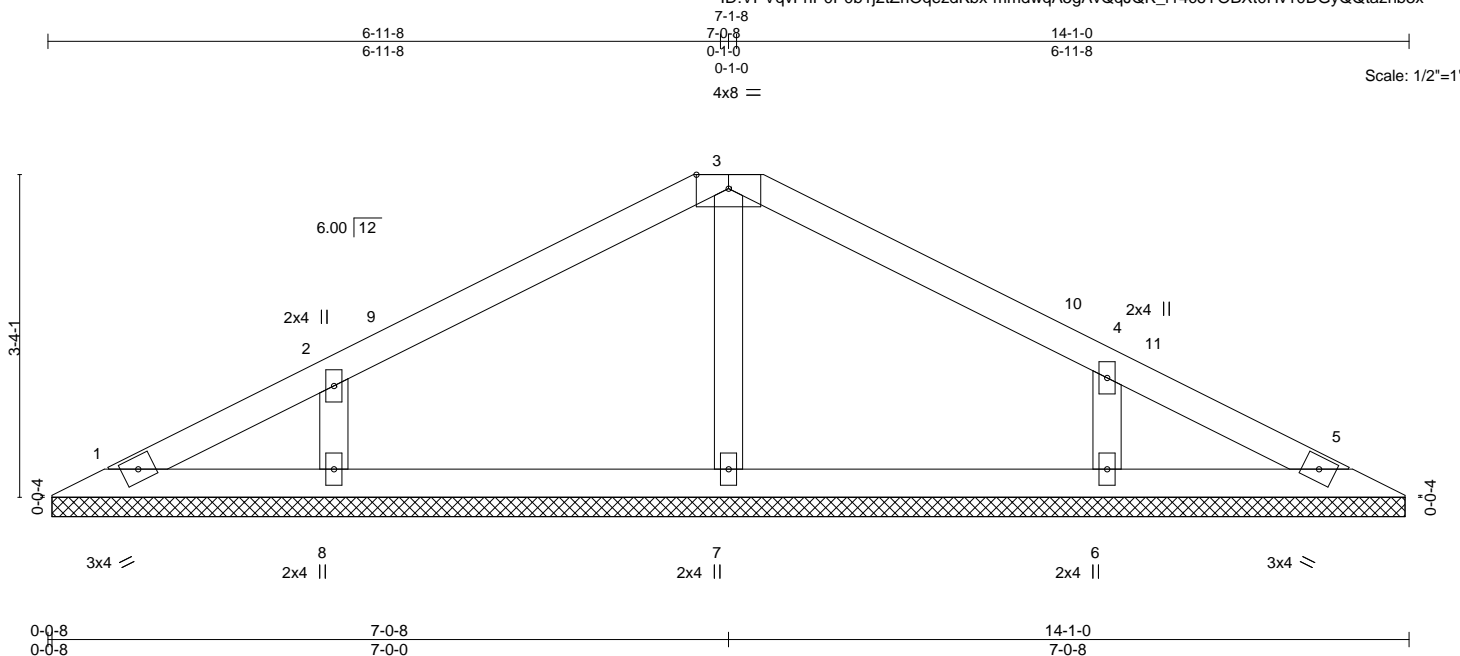
Job 2630561	Truss V7	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965944
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:30 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-mmdwqA5gAvQqJQK_f14c6YOBXt0Hv10DGyQQtazhb3x

Job Reference (optional)



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
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-

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

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-

- 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) 0-7-9 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
- 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, 7 except (jt=lb) 8=126, 6=123.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

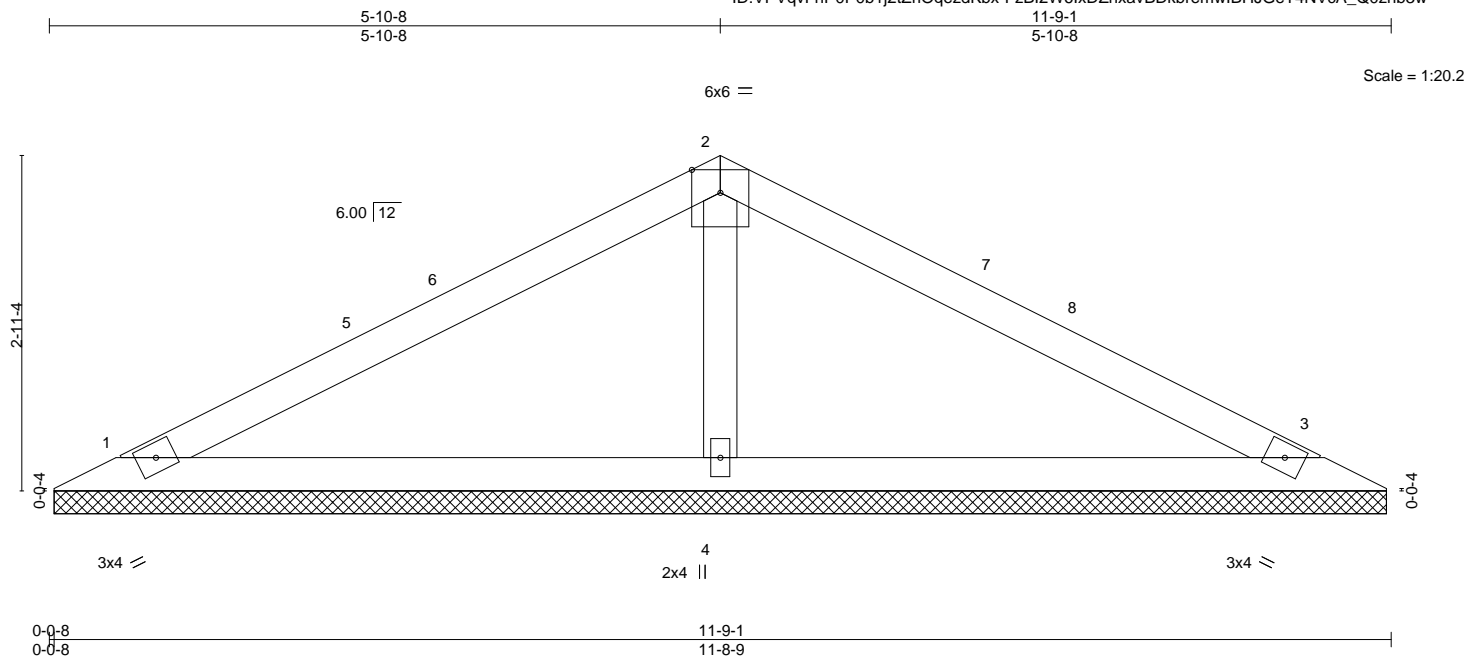
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss V8	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965945
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:31 2021 Page 1
ID:VPVqvFnP0P0b1j2tZrIQezdKbx-FzBl2W6lxDZhxavBDkbremwIBHJGeT4NVcA_Q0zhh3w



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	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.25	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 29 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=11-8-1, 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.



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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss V9	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965946
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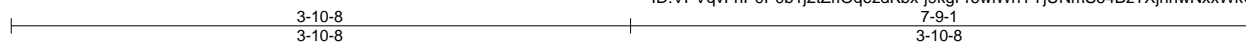
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

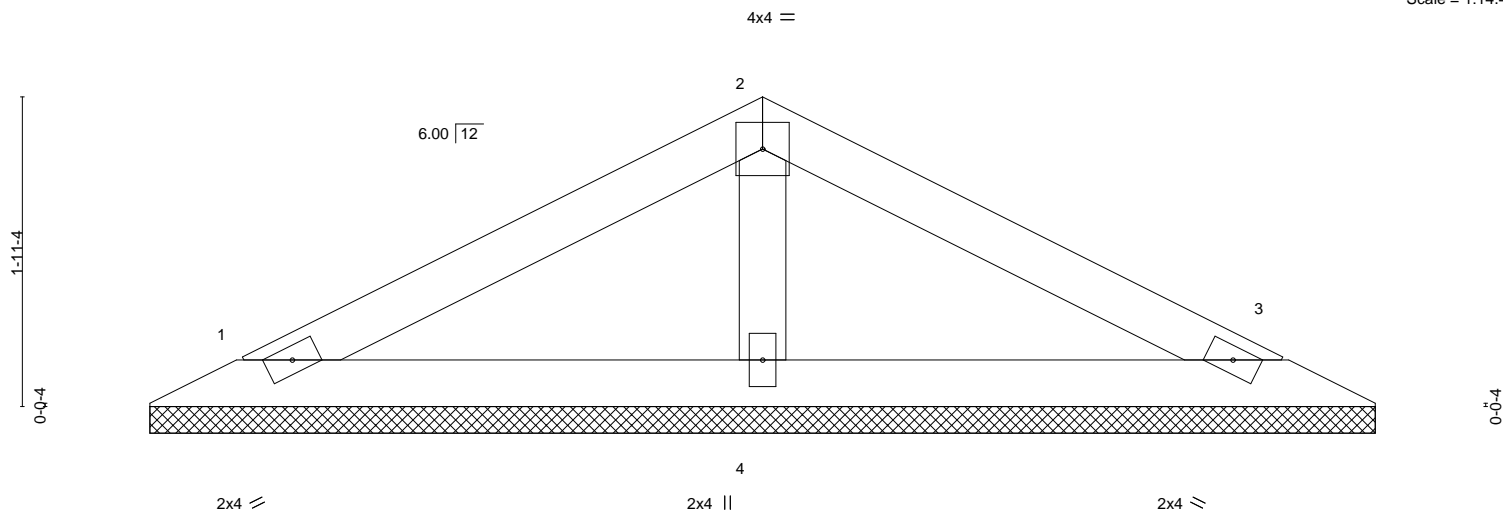
8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:32 2021 Page 1

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Job Reference (optional)



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	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 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=7-8-1, 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.



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Chesterfield, MO 63017

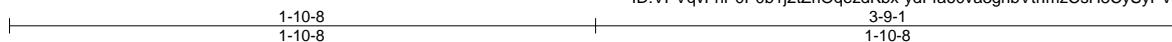
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965947
2630561	V10	Valley	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:24 2021 Page 1

ID:VPVqvFnP0P0b1j2tZrIOqezdKbx-ydFfa60va3ghbVtrImzCsH8CySyPVJVLu0z6hwzhb41



Scale = 1:7.4

Plate Offsets (X,Y)-- [2:0-2-0,Edge]		2x4		2x4	
LOADING (psf)		SPACING-- 2-0-0		CSI.	
TCLL	25.0	Plate Grip DOL 1.15		TC	0.04
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-P	
				DEFL.	in (loc) l/defl L/d
				Vert(LL)	n/a - n/a 999
				Vert(CT)	n/a - n/a 999
				Horz(CT)	0.00 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

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

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

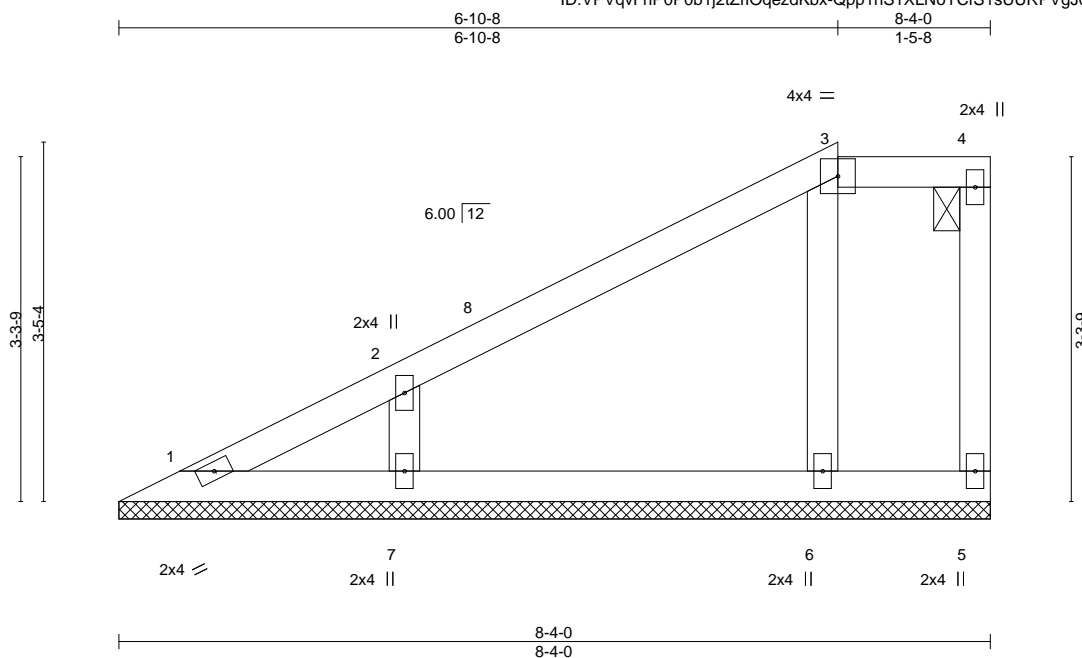
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2630561	Truss V11	Truss Type Valley	Qty 1	Ply 1	Summit/39 Woodside Ridge/MO 144965948
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:25 2021 Page 1
ID:VPVqvFnP0P0b1j2tZr1OqezdKbx-Qpp1nS1XLNoYCFs1sUURPVgJ0slVEm_U7gigDMzhb40



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-

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, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

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

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

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

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

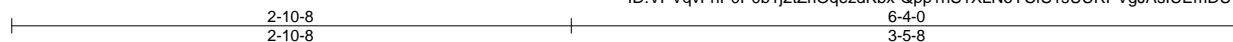


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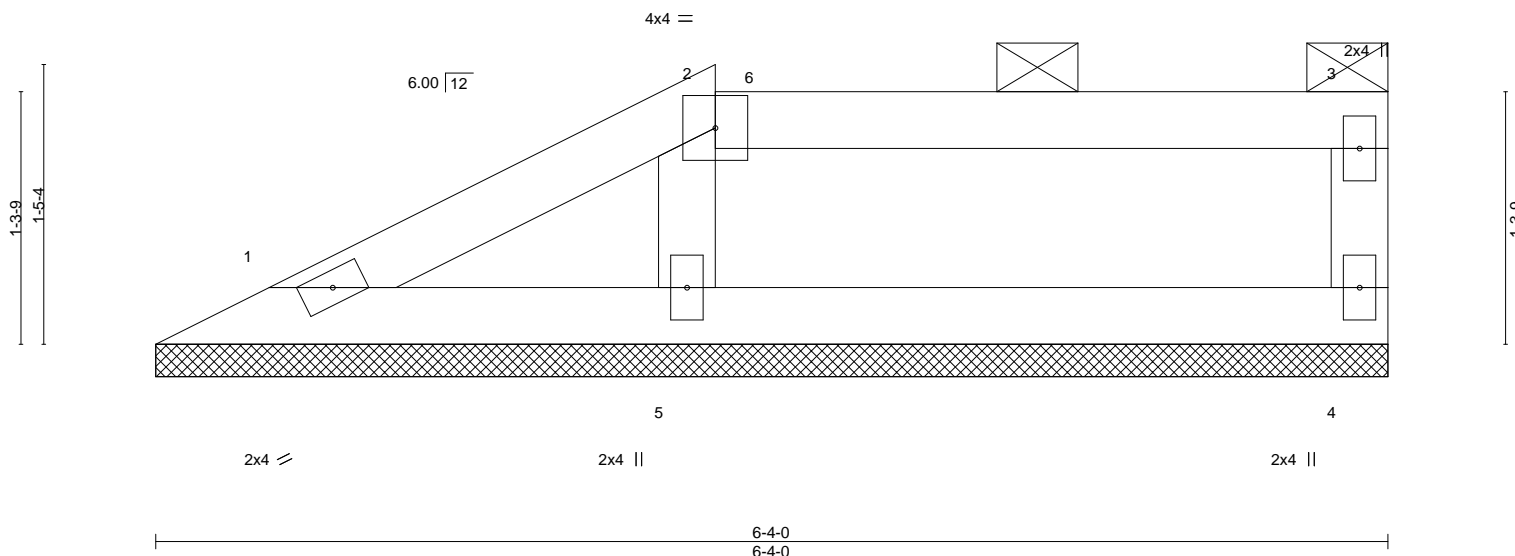
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	144965949
2630561	V12	Valley	1	1	Job Reference (optional)	

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

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:25 2021 Page 1
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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-

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 6-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

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-

- 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) 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, 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

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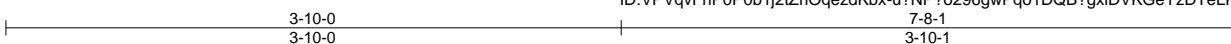
Job	Truss	Truss Type	Qty	Ply	Summit/39 Woodside Ridge/MO	I44965950
2630561	V13	VALLEY	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center),

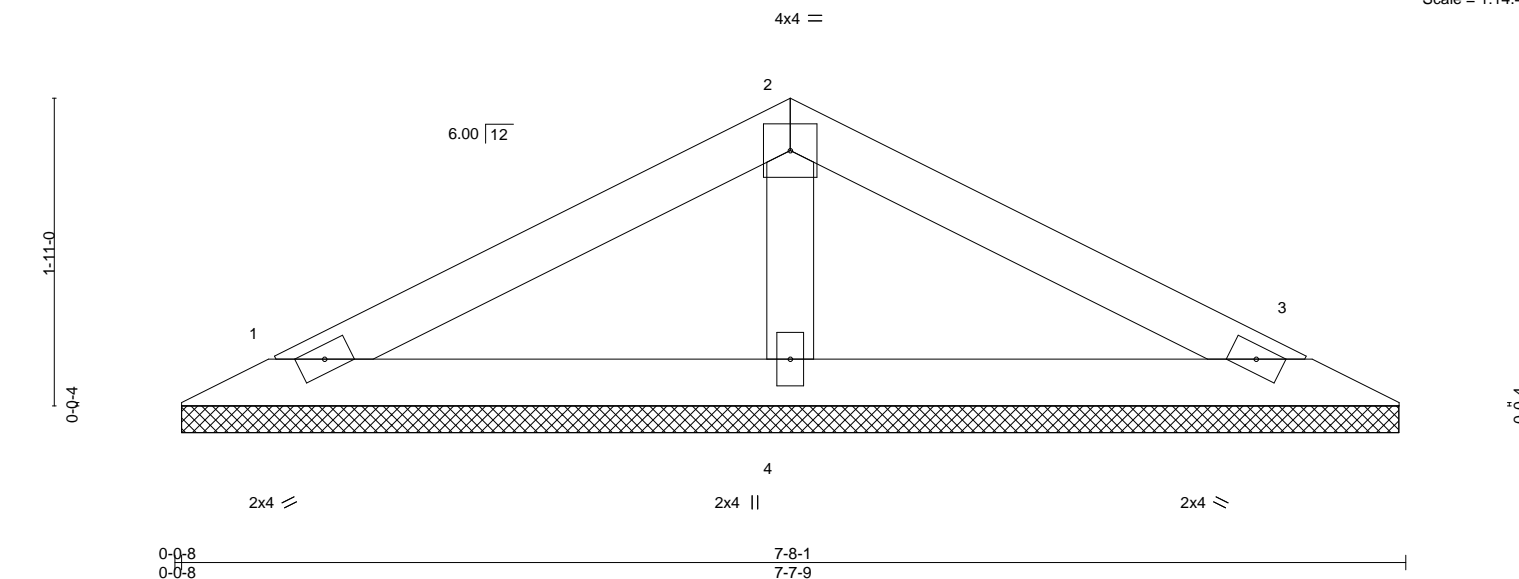
Valley Center, KS - 67147,

8.430 s Feb 12 2021 MiTek Industries, Inc. Thu Feb 25 13:03:26 2021 Page 1

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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	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 18 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 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; 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
- 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

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

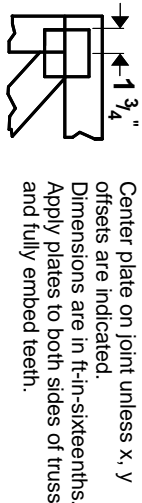
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



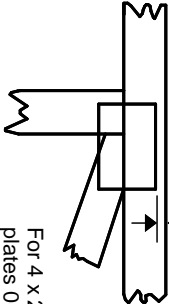
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Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



0-¹/₁₆"



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

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

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

PLATE SIZE

4 X 4

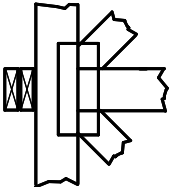
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING



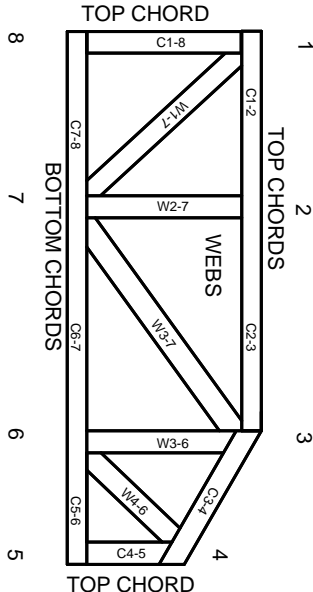
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System

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



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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