



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

Re: 2846773
Summit/28 Woodside

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: I46777155 thru I46777203

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

Missouri COA: Engineering 001193



June 29, 2021

Sevier, Scott ,Engineer

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

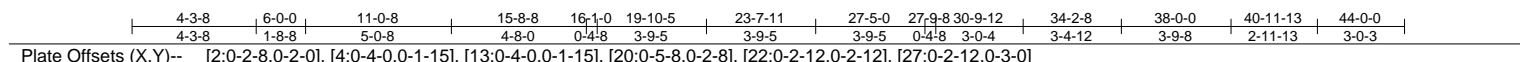
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:00 2021 Page 1

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0-10-8 4-3-8 6-0-0 11-0-8 16-1-0 19-10-5 23-7-10 27-5-0 30-9-12 34-2-8 38-0-0 40-11-13 44-0-0 44-10-8

0-10-8 4-3-8 1-8-8 5-0-8 5-0-8 3-9-5 3-9-5 3-9-5 3-4-12 3-4-12 3-9-8 2-11-13 3-0-3 0-10-8

Scale = 1:79.7



<p>LUMBER-</p> <p>TOP CHORD 2x4 SPF No.2</p> <p>BOT CHORD 2x4 SPF No.2 *Except*</p> <p> 2-30: 2x6 SPF No.2</p> <p>WEBS 2x4 SPF No.2</p> <p>WEDGE</p> <p>Right: 2x4 SPF No.2</p>	<p>BRACING-</p> <p>TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-13.</p> <p>BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 25-26,24-25,23-24.</p>
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FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-3199/780, 3-4=-2710/713, 4-5=-1614/427, 5-6=-412/1790, 6-7=-417/1823,
7-9=-115/463, 9-10=-356/1810, 10-11=-360/1816, 11-12=-780/230, 12-13=-2289/584,
13-14=-2047/511, 14-15=-2096/481

BOT CHORD 2-30=-691/2812, 29-30=-667/2718, 28-29=-587/2430, 27-28=-360/1609, 6-27=-736/251,
24-25=-452/188, 10-22=-628/206, 21-22=-150/780, 20-21=-466/2315, 12-20=-0/289,
17-18=-371/1799, 15-17=-371/1799

WEBS 3-30=-93/444, 3-29=-346/98, 4-29=-204/839, 4-28=-898/249, 5-28=-46/447,
5-27=-3684/908, 25-27=-407/173, 7-27=-1607/353, 7-25=0/367, 9-24=0/361,
22-24=-391/163, 9-22=-1610/332, 11-22=-3044/691, 11-21=-175/989, 12-21=-1801/414,
18-20=-356/1724. 13-20=-155/597

NOTES-

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-7-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 3x4 MT20 unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



June 29, 2021

Job 2846773	Truss A1	Truss Type HIP GIRDER	Qty 1	Ply 2	Summit/28 Woodside 146777155
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:00 2021 Page 2
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NOTES-

- 8) 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 288 lb uplift at joint 2, 686 lb uplift at joint 27, 660 lb uplift at joint 22 and 294 lb uplift at joint 15.
- 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.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 200 lb down and 96 lb up at 6-0-0, 176 lb down and 96 lb up at 8-0-12, 176 lb down and 96 lb up at 10-0-12, 176 lb down and 96 lb up at 12-0-12, 176 lb down and 96 lb up at 14-0-12, 176 lb down and 96 lb up at 28-0-12, 176 lb down and 96 lb up at 30-0-12, and 176 lb down and 96 lb up at 32-0-12, and 176 lb down and 96 lb up at 34-0-12 on top chord, and 401 lb down and 159 lb up at 6-0-0, and 458 lb down and 150 lb up at 37-11-4 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: 1-4=-90, 4-13=-90, 13-16=-90, 30-31=-20, 27-30=-20, 23-26=-20, 20-22=-20, 19-34=-20
 - Concentrated Loads (lb)
 - Vert: 4=-176(B) 8=-114(B) 27=-59(B) 6=-114(B) 12=-176(B) 29=-401(B) 25=-59(B) 7=-114(B) 13=-114(B) 18=-458(B) 37=-176(B) 38=-176(B) 39=-176(B) 40=-176(B) 41=-114(B) 42=-114(B) 43=-114(B) 44=-176(B) 45=-176(B) 46=-176(B) 47=-114(B) 52=-59(B) 53=-59(B) 54=-59(B) 55=-59(B) 59=-59(B)

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

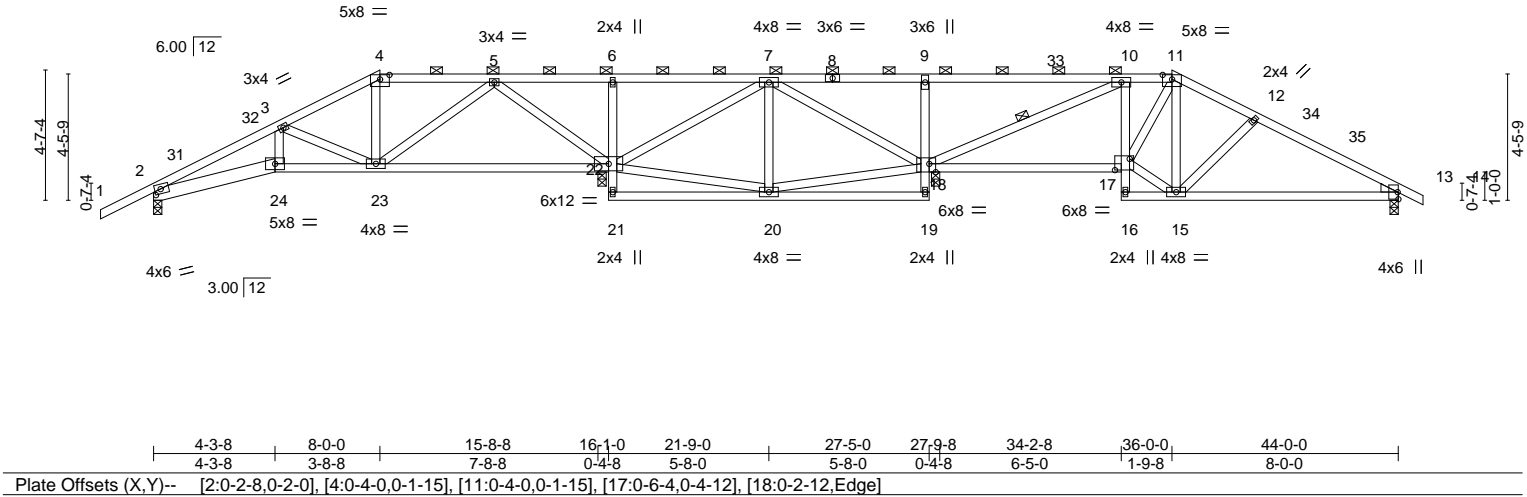
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777156
2846773	A2	HIP	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:17 2021 Page 1
 ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-C5DMXNTLObvsszf1qyHqao0gQc7Vja0cS3zQAwz1iiO
 1-10-8 4-3-8 8-0-0 12-0-8 16-1-0 21-9-0 27-5-0 34-2-8 36-0-0 38-10-12 44-0-0 44-10-8
 1-10-8 4-3-8 3-8-8 4-0-8 4-0-8 5-8-0 5-8-0 6-9-8 1-9-8 2-10-12 5-1-4 0-10-8
 Scale = 1:81.4



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 0.80	Vert(LL)	-0.11 22-23	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.23 22-23	>857	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.63	Horz(CT)	0.06 13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 197 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 *Except*	2-0-0 oc purlins (5-5-0 max.): 4-11.
2-24: 2x6 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 10-18
WEDGE	
Right: 2x4 SPF No.2	

REACTIONS. All bearings 0-3-8.
 (lb) - Max Horz 2=84(LC 16)
 Max Uplift All uplift 100 lb or less at joint(s) except 2=137(LC 12), 22=264(LC 12), 18=245(LC 13), 13=140(LC 13)
 Max Grav All reactions 250 lb or less at joint(s) except 2=890(LC 25), 22=1779(LC 25), 18=1609(LC 26), 13=884(LC 26)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1560/243, 3-4=-868/138, 4-5=-725/147, 5-6=-93/842, 6-7=-81/830, 7-9=-22/523, 9-10=-17/481, 10-11=-960/201, 11-12=-869/184, 12-13=-1163/212
 BOT CHORD 2-24=-224/1340, 23-24=-214/1288, 6-22=-456/128, 9-18=-594/166, 17-18=-53/1015, 13-15=-113/966
 WEBS 3-24=-26/258, 3-23=-619/171, 5-23=-67/672, 5-22=-1286/234, 7-22=-841/123, 7-18=-532/114, 10-18=-1625/220, 15-17=0/846, 11-17=-68/487, 12-15=-352/125

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 12-0-8, Interior(1) 12-0-8 to 36-0-0, Exterior(2R) 36-0-0 to 40-2-15, Interior(1) 40-2-15 to 44-10-8 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.
 - Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 137 lb uplift at joint 2, 264 lb uplift at joint 22, 245 lb uplift at joint 18 and 140 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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.



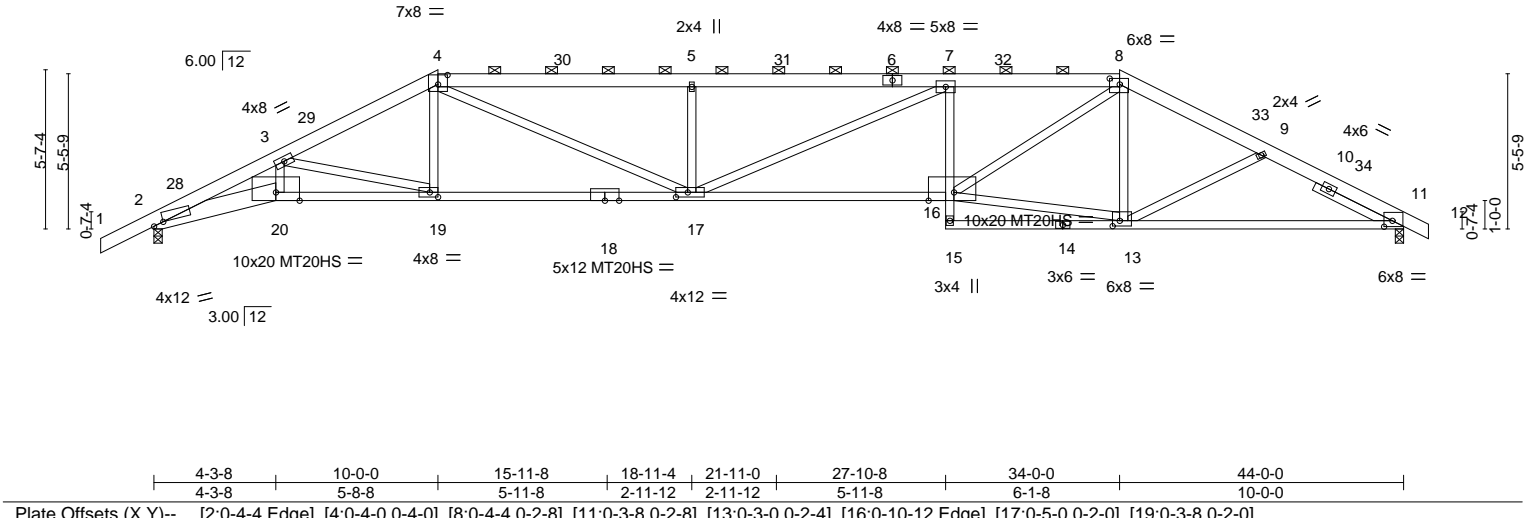
June 29,2021

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MiTek
 16023 Swingley Ridge Rd
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777157
2846773	A3	HIP	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:19 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-8TL6y3VbwC9a5y7PyNKIfD5_vQobBOLvwNSWFpz1iIM
1-10-8 4-3-8 10-0-0 12-11-12 18-11-4 24-10-12 27-10-8 34-0-0 38-11-13 44-0-0 44-10-8
1-10-8 4-3-8 5-8-8 2-11-12 5-11-8 5-11-8 2-11-12 6-1-8 4-11-13 5-0-3 0-10-8
Scale = 1:81.1



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 0.92	Vert(LL)	-0.45 16-17	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-1.07 16-17	>490	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.96	Horz(CT)	0.37 11	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 234 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SP 2400F 2.0E *Except*	2-0-0 oc purlins (2-1-0 max.): 4-8.
2-20: 2x8 SP 2400F 2.0E, 7-15,14-15: 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 3-0-0	

REACTIONS.	(size) 2=0-3-8, 11=0-3-8
	Max Horz 2=100(LC 12)
	Max Uplift 2=303(LC 12), 11=284(LC 13)
	Max Grav 2=2583(LC 1), 11=2501(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7356/818, 3-4=-5180/558, 4-5=-6494/769, 5-7=-6492/768, 7-8=-6005/704, 8-9=-4112/458, 9-11=-4305/510
BOT CHORD	2-20=-756/6627, 19-20=-729/6362, 17-19=-457/4603, 16-17=-613/6084, 7-16=-969/241, 13-15=-45/266, 11-13=-372/3780
WEBS	3-20=-114/1326, 3-19=-1794/302, 4-19=-17/672, 13-16=-262/3441, 8-16=-398/2850, 8-13=-389/134, 5-17=-885/243, 7-17=-219/577, 4-17=-357/2227

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-10-8 to 1-1-8, Interior(1) 1-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 34-0-0, Exterior(2R) 34-0-0 to 38-2-15, Interior(1) 38-2-15 to 44-10-8 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.
 - 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) 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 303 lb uplift at joint 2 and 284 lb uplift at joint 11.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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.



June 29,2021

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777158
2846773	A4	Hip	1	1		

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

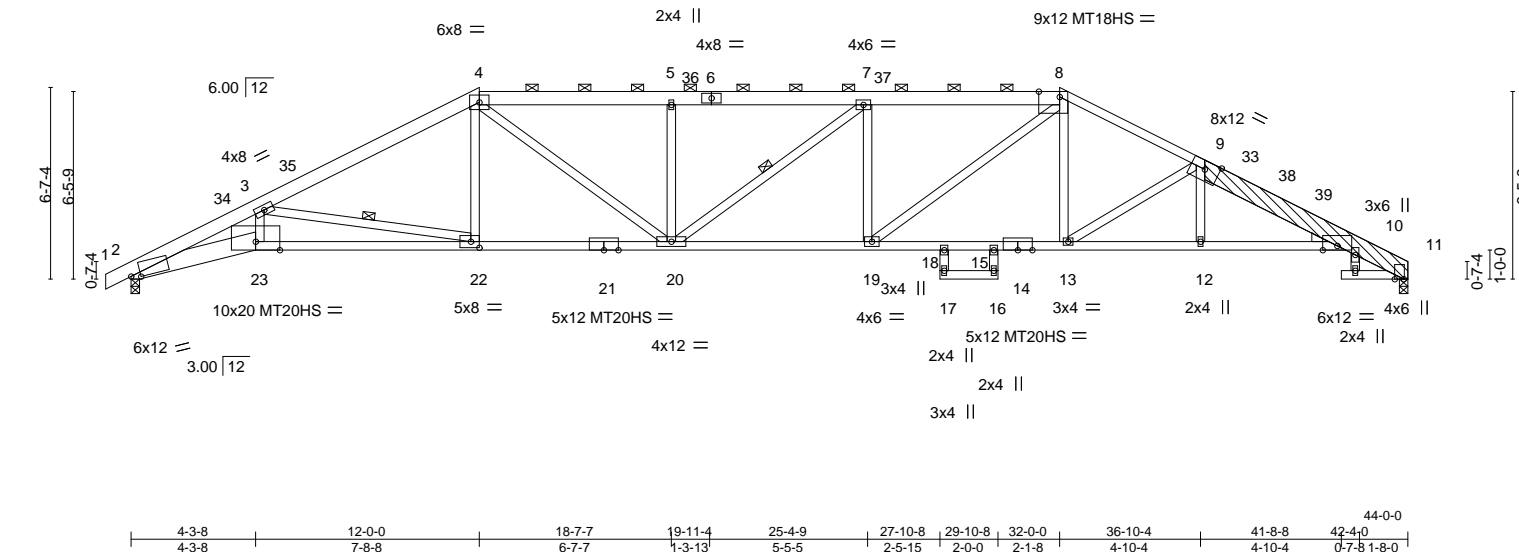
8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:21 2021 Page 1

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Job Reference (optional)

0-10-8 4-3-8 12-0-0 18-7-7 19-11-4 25-4-9 27-10-8 29-10-8 32-0-0 36-10-4 41-8-8 42-4-0 44-0-0
0-10-8 4-3-8 7-8-8 6-7-7 1-3-13 5-5-5 2-5-15 2-0-0 2-1-8 4-10-4 4-10-4 0-7-8 1-8-0 0-10-8

Scale = 1:79.4



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.73	Vert(LL)	-0.42 19-20 >999 240	MT20	197/144		
TCDL	20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.94 19-20 >559 180	MT20HS	148/108		
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.52 11 n/a n/a	MT18HS	197/144		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 255 lb	FT = 20%		

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
8-9: 2x4 SPF No.2, 9-11: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-23: 2x8 SP 2400F 2.0E, 14-21,10-14: 2x4 SPF 1650F 1.5E
21-23: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
OTHERS 2x8 SP 2400F 2.0E
LBR SCAB 9-11 2x8 SP 2400F 2.0E one side
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-10-0 max.): 4-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 3-22, 7-20

REACTIONS. (size) 2=0-3-8, 11=0-3-8
Max Horz 2=108(LC 16)
Max Uplift 2=184(LC 12), 11=163(LC 13)
Max Grav 2=2492(LC 1), 11=2416(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7587/736, 3-4=-4781/484, 4-5=-5135/558, 5-7=-5133/557, 7-8=-5146/568,
8-9=-4601/491, 9-10=-5462/541, 10-11=-1070/126
BOT CHORD 2-23=-636/6867, 22-23=-621/6589, 20-22=-365/4193, 19-20=-452/5138, 18-19=-276/4029,
15-18=-287/3947, 13-15=-276/4029, 12-13=-427/5069, 10-12=-429/5063
WEBS 3-23=-55/1410, 3-22=-2422/387, 4-22=-14/648, 8-13=-50/701, 7-19=-818/212,
8-19=-248/1546, 5-20=-631/176, 4-20=-235/1360, 9-13=-1178/199

- NOTES-**
- Attached 8-1-3 scab 9 to 11, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-15 from end at joint 9, nail 2 row(s) at 4" o.c. for 3-9-7; starting at 3-9-5 from end at joint 9, nail 2 row(s) at 2" o.c. for 2-7-13.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 12-0-0, Exterior(2R) 12-0-0 to 18-2-11, Interior(1) 18-2-11 to 32-0-0, Exterior(2R) 32-0-0 to 38-2-11, Interior(1) 38-2-11 to 43-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 2, 11 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 184 lb uplift at joint 2 and 163 lb uplift at joint 11.

Continued on page 2



June 29,2021

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MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss A4	Truss Type Hip	Qty 1	Ply 1	Summit/28 Woodside 146777158 Job Reference (optional)
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- NOTES-**
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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-0-10-8	4-3-8	9-1-12	14-0-0	18-0-0	25-10-6	27-10-8	30-0-0	36-6-0	41-8-8	42-4-0	44-10-8
0-10-8	4-3-8	4-10-4	4-10-4	4-0-0	7-10-6	2-0-2	2-1-8	6-6-0	5-2-8	0-7-8	1-8-0

Scale = 1:80.3

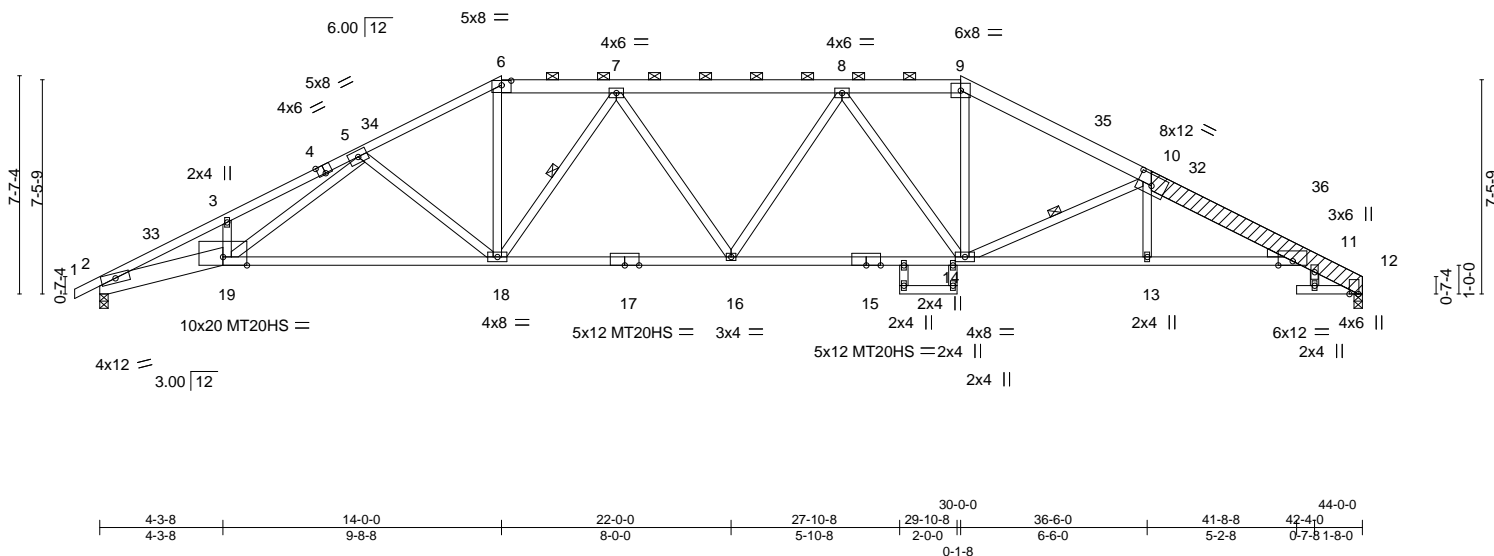


Plate Offsets (X,Y)-- [4:0-3-0,Edge], [6:0-4-0,0-1-15], [10:0-6-0,0-4-8]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.39	16	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.99	18-19	>529	180	MT20HS	148/108	
BCLL	0.0	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.53	12	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 249 lb	FT = 20%	

LUMBER-

TOP CHORD	2x4 SPF 1650F 1.5E *Except* 6-9,9-10: 2x6 SPF No.2, 10-12: 2x8 SP 2400F 2.0E
BOT CHORD	2x4 SPF No.2 *Except* 2-19: 2x8 SP 2400F 2.0E, 17-19,11-15,15-17: 2x4 SPF 1650F 1.5E
WEBS	2x4 SPF No.2
OTHERS	2x8 SP 2400F 2.0E
LBR SCAB	10-12 2x8 SP 2400F 2.0E one side
WEDGE	
Right:	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (2-9-13 max.): 6-9.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 7-18, 10-14

REACTIONS.

(size) 2=0-3-8, 12=0-3-8
 Max Horz 2=122(LC 16)
 Max Uplift 2=-203(LC 12), 12=-183(LC 13)
 Max Grav 2=2492(LC 1), 12=2416(LC 1)

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

TOP CHORD 2-3=7216/594, 3-5=7165/664, 5-6=4281/443, 6-7=3724/422, 7-8=4291/459,
8-9=3756/427, 9-10=4357/444, 10-11=5552/516, 11-12=1070/118

BOT CHORD 2-19=545/6466, 18-19=354/4552, 16-18=322/4246, 14-16=284/4239, 13-14=406/5166,
11-13=408/5159

WEBS 5-19=276/2336, 5-18=1021/239, 6-18=127/1626, 9-14=101/1458, 7-18=1082/218,
8-14=1001/207, 10-14=1507/270

NOTES-

- 1) Attached 8-5-15 scab 10 to 12, back face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-7 from end at joint 10, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 3-8-7 from end at joint 10, nail 2 row(s) at 2" o.c. for 3-1-8.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDF=6.0psf; BCDL=4.2psf; h=15ft; 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 14-0-0, Exterior(2R) 14-0-0 to 18-0-0, Interior(1) 18-0-0 to 30-0-0, Exterior(2R) 30-0-0 to 34-2-15, Interior(1) 34-2-15 to 43-10-4 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates 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) Bearing at joint(s) 2, 12 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 203 lb uplift at joint 2 and 183 lb uplift at joint 12.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

Continued on page 2



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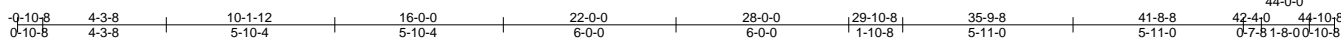
WARNING: Velly design parameters are listed below and included with the key reference to AISC M14-15 167, § 9.5.2020 by ONE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for the building component, not a truss system. Before use, the building 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/28 Woodside	I46777159
2846773	A5	Hip	1	1	Job Reference (optional)	

- NOTES-**
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Scale = 1:80.0

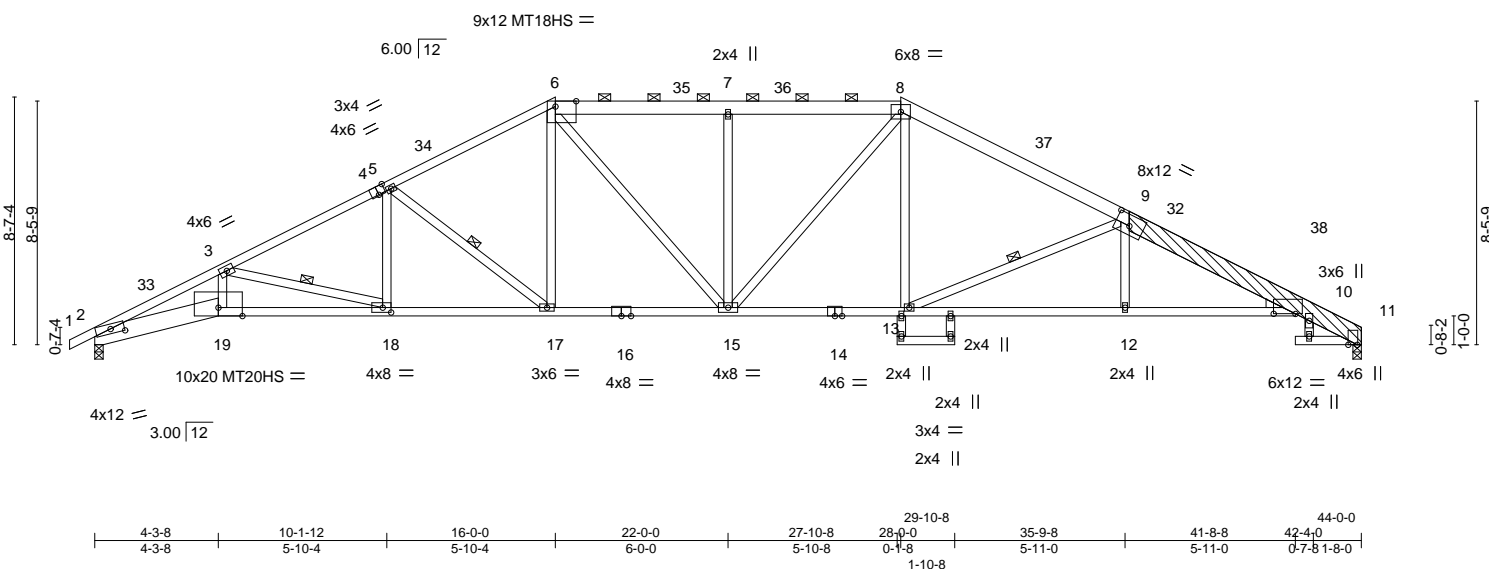


Plate Offsets (X,Y)-- [2:0-5-12,0-2-0], [4:0-3-0,Edge], [6:0-8-10,Edge], [9:0-6-0,0-4-8], [10:0-9-2,0-0-1], [11:0-0-0,Edge], [18:0-3-8,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.35	15-17	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.79	15-17	>666	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.50	11	n/a	n/a	MT18HS	197/144
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 263 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 6-8,8-9: 2x6 SPF No.2, 9-11: 2x8 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-8 max.): 6-8.
BOT CHORD	2x4 SPF No.2 *Except* 2-19: 2x8 SP 2400F 2.0E, 16-19: 2x4 SP 2400F 2.0E 10-14: 2x4 SPF 1650F 1.5E	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 3-18, 5-17, 9-13
OTHERS	2x8 SP 2400F 2.0E		
LBR SCAB	9-11 2x8 SP 2400F 2.0E one side		
WEDGE			
Right: 2x4 SP No.3			

REACTIONS. (size) 2=0-3-8, 11=0-3-8
 Max Horz 2=138(LC 16)
 Max Uplift 2=-221(LC 12), 11=-201(LC 13)
 Max Grav 2=2492(LC 1), 11=2416(LC 1)

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

TOP CHORD 2-3=-717/1644, 3-5=-4976/481, 5-6=-3949/437, 6-7=-3776/451, 7-8=-3771/450,
8-9=-4054/433, 9-10=-5417/507, 10-11=-1070/120

BOT CHORD 2-19=-657/6438, 18-19=-637/6230, 17-18=-343/4388, 15-17=-185/3420, 13-15=-185/3472,
12-13=-390/5016, 10-12=-393/5008

WEBS 3-19=-77/1145, 3-18=-1906/304, 5-18=-33/655, 5-17=-1198/244, 6-17=-97/839,
6-15=-140/742, 7-15=-668/174, 8-15=-135/673, 9-12=-0/299, 8-13=-59/778,
9-13=-1655/310

NOTES-

- 1) Attached 9-3-7 scab 9 to 11, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-7 from end at joint 9, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-5-15 from end at joint 9, nail 3 row(s) at 2" o.c. for 2-11-8.
- 2) Unbalanced roof live loads have been considered for this design.
- 3) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=4.2psf; h=15ft; 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 20-2-15, Interior(1) 20-2-15 to 28-0-0, Exterior(2R) 28-0-0 to 32-2-15, Interior(1) 32-2-15 to 43-10-4 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
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates 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) Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 221 lb uplift at joint 2 and 201 lb uplift at

Continued on page 2



June 29, 2021



WARNING – Velly design parameters are listed below and included within key reference 1. See MIF-1419.1 for 3/15/2020 per 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/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/28 Woodside	146777160
2846773	A6	Hip	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:25 2021 Page 2
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-zdiND6aMW2vkptaZleQivUL0yrn0bConlIvrSSz1iiG

NOTES-

- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

 **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



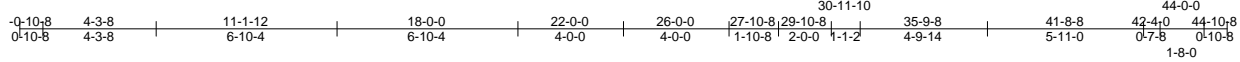
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777161
2846773	A7	HIP	1	1		

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:27 2021 Page 1

ID:b0jcEz00th2MAe1aMpWBnxzu4zl-v0q7eobd1g9R3BkyQ3TA_vQM5eSr30G4mcOxXLz1iiE



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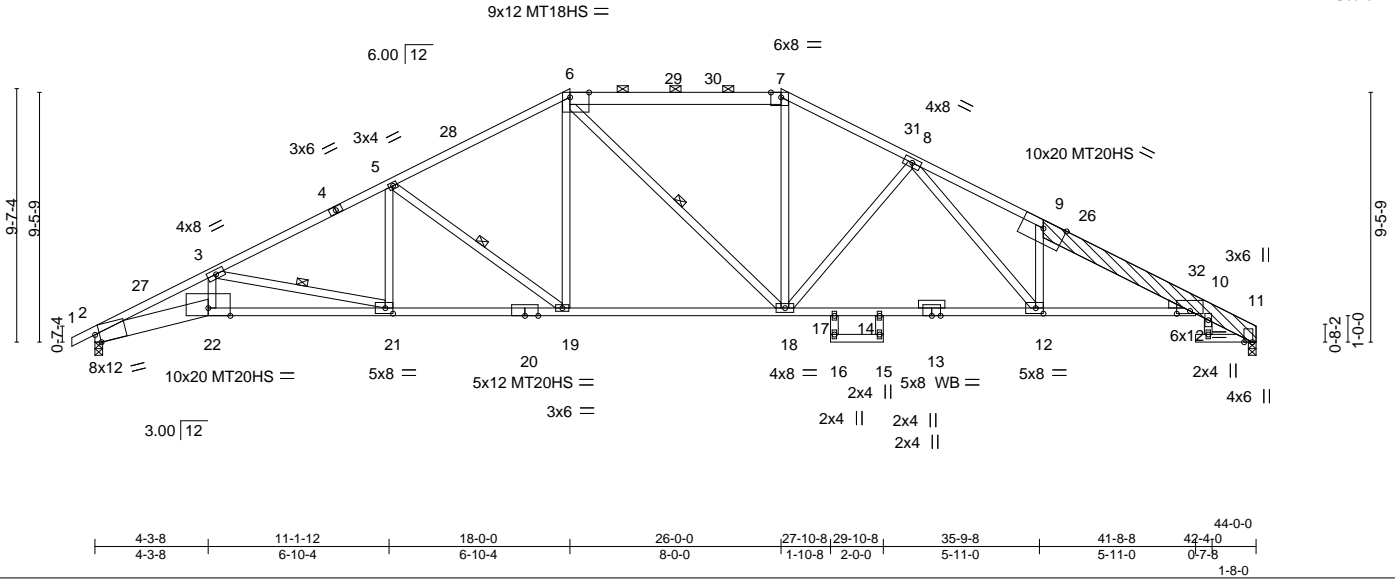


Plate Offsets (X,Y)--	[2:0-2-1,Edge], [6:0-8-10,Edge], [7:0-4-10,Edge], [10:0-6-0,0-1-4], [11:0-0-0,Edge], [12:0-3-8,0-2-8], [21:0-3-8,0-2-8]					
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.85	Vert(LL)	-0.39 18-19	>999 240
TCDL 20.0	Lumber DOL	1.15	BC 0.96	Vert(CT)	-0.94 12-14	>555 180
BCLL 0.0	Rep Stress Incr	YES	WB 0.96	Horz(CT)	0.53 11	n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S			
				PLATES		GRIP
				MT20		197/144
				MT20HS		148/108
				MT18HS		197/144
				Weight: 253 lb		FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
6-7: 2x6 SPF No.2, 9-11: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
2-22: 2x8 SP 2400F 2.0E, 20-22: 2x4 SP 2400F 2.0E
10-13,13-20: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x8 SP 2400F 2.0E *Except*
13-13: 2x4 SPF No.2
LBR SCAB 9-11 2x8 SP 2400F 2.0E one side
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-5-14 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 9-0-12 oc bracing: 21-22
2-2-0 oc bracing: 10-12.
WEBS 1 Row at midpt 3-21, 5-19, 6-18

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
Max Horz 2=153(LC 12)
Max Uplift 2=-276(LC 12), 11=-250(LC 13)
Max Grav 2=2497(LC 1), 11=2406(LC 1)

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

TOP CHORD 2-3=-7665/884, 3-5=-4771/516, 5-6=-3643/422, 6-7=-3135/408, 7-8=-3591/425,
8-9=-5566/638, 9-10=-5323/499, 10-11=-838/104
BOT CHORD 2-22=-893/6796, 21-22=-851/6451, 19-21=-446/4164, 18-19=-221/3130, 17-18=-248/3768,
14-17=-258/3706, 12-14=-248/3768, 10-12=-371/4900
WEBS 3-22=-160/1668, 3-21=-2344/415, 5-21=-26/613, 5-19=-1259/275, 6-19=-101/877,
7-18=-70/931, 8-18=-967/244, 8-12=-239/1693, 9-12=-1114/254, 6-18=-258/276

NOTES-

- Attached 9-3-7 scab 9 to 11, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-8 from end at joint 9, nail 2 row(s) at 4" o.c. for 2-0-0; starting at 4-7-2 from end at joint 9, nail 2 row(s) at 3" o.c. for 2-11-12.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-8 to 2-1-8, Interior(1) 2-1-8 to 18-0-0, Exterior(2R) 18-0-0 to 22-2-15, Interior(1) 22-2-15 to 26-0-0, Exterior(2R) 26-0-0 to 30-2-15, Interior(1) 30-2-15 to 43-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Bearing at joint(s) 2, 11 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 276 lb uplift at joint 2 and 250 lb uplift at joint 11.

Continued on page 2



June 29,2021

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/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 2846773	Truss A7	Truss Type HIP	Qty 1	Ply 1	Summit/28 Woodside 146777161 Job Reference (optional)
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- NOTES-**
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777162
2846773	A8	Hip	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:29 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-rOyu2UdtZHP9lVukXUve3KWnyS9AX_YNDwt2cDz1iIC

0-10-8 4-3-8 12-1-12 20-0-0 24-0-0 27-10-8 29-10-8 35-9-8 41-8-8 42-4-0 44-10-8
0-10-8 4-3-8 7-10-4 7-10-4 4-0-0 3-10-8 2-0-0 5-11-0 5-11-0 0-7-8 1-8-0 0-10-8

Scale = 1:80.0

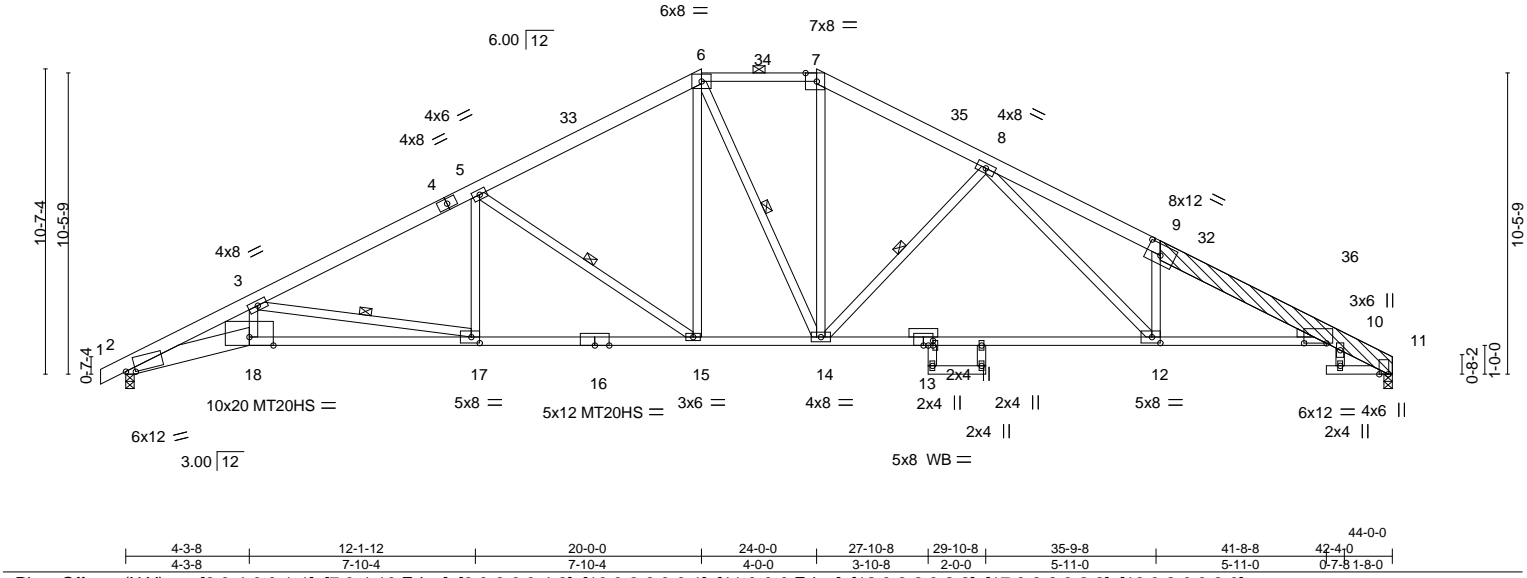


Plate Offsets (X,Y)--		[2:0-4-0,0-1-1], [7:0-4-10,Edge], [9:0-6-0,0-4-8], [10:0-9-6,0-0-1], [11:0-0-0,Edge], [12:0-3-8,0-2-8], [17:0-3-8,0-2-8], [19:0-2-0,0-2-0]					
LOADING (psf)	SPACING	2-0-0	CSI	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.57	Vert(LL)	-0.39 12-14	>999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.84	Vert(CT)	-1.02 12-14	>515	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.72	Horz(CT)	0.46 11	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES			GRIP
				MT20			197/144
				MT20HS			148/108
				Weight: 282 lb			FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied, except
6-7: 2x4 SPF No.2, 9-11: 2x8 SP 2400F 2.0E	2-0-0 oc purlins (3-3-1 max.): 6-7.
BOT CHORD 2x4 SPF No.2 *Except*	BOT CHORD Rigid ceiling directly applied.
2-18: 2x8 SP 2400F 2.0E, 16-18,10-13: 2x4 SP 2400F 2.0E	WEBS 1 Row at midpt 3-17, 5-15, 6-14, 8-14
13-16: 2x4 SPF 1650F 1.5E	
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	
LBR SCAB 9-11 2x8 SP 2400F 2.0E one side	
WEDGE	
Right: 2x4 SP No.3	

REACTIONS.	(size) 2=0-3-8, 11=0-3-8
	Max Horz 2=171(LC 16)
	Max Uplift 2=269(LC 12), 11=248(LC 13)
	Max Grav 2=2492(LC 1), 11=2416(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7552/863, 3-5=-4727/497, 5-6=-3413/414, 6-7=-2886/400, 7-8=-3367/417, 8-9=-5624/640, 9-10=-5404/499, 10-11=-1070/132
BOT CHORD	2-18=-892/6826, 17-18=-863/6545, 15-17=-441/4159, 14-15=-172/2877, 12-14=-241/3684, 10-12=-368/4971
WEBS	3-18=-121/1423, 3-17=-2426/429, 5-17=-9/689, 5-15=-1535/323, 6-15=-148/938, 6-14=-235/285, 7-14=-110/1025, 8-14=-1159/290, 8-12=-244/1805, 9-12=-1061/263

- NOTES-**
- Attached 9-3-7 scab 9 to 11, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c.except : starting at 0-0-7 from end at joint 9, nail 2 row(s) at 7" o.c. for 2-0-0; starting at 4-5-15 from end at joint 9, nail 3 row(s) at 2" o.c. for 2-11-8.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 1-10-0, Interior(1) 1-10-0 to 20-0-0, Exterior(2E) 20-0-0 to 24-0-0, Exterior(2R) 24-0-0 to 28-2-15, Interior(1) 28-2-15 to 43-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Provide adequate drainage to prevent water ponding.
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - Bearing at joint(s) 2, 11 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 269 lb uplift at joint 2 and 248 lb uplift at joint 11.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced to ANSI/TPI 1.



June 29,2021

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	I46777162
2846773	A8	Hip	1	1	Job Reference (optional)	

- NOTES-**
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777163
2846773	A9	ROOF SPECIAL	3	1		

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

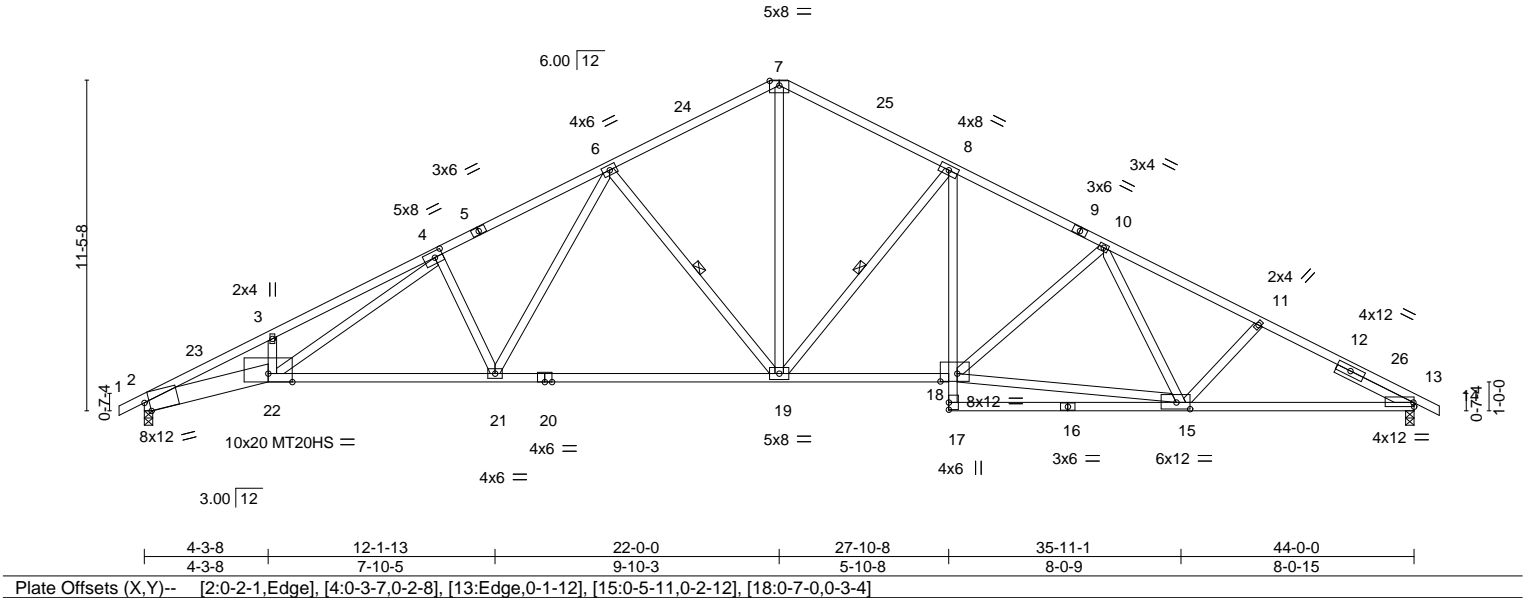
8.430 s Jun 2 2021
MiTek Industries, Inc.
Mon Jun 28 15:43:33 2021
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-0-10-8
4-3-8
10-2-5
16-1-8
22-0-0
27-10-8
33-2-14
38-7-5
44-0-0
44-10-8

0-10-8
4-3-8
5-10-13
5-11-2
5-10-8
5-10-8
5-4-6
5-4-6
5-4-11
0-10-8

Scale = 1:79.8



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	0.86	Vert(LL)	-0.34	21-22	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.84	19-21	>623	180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.39	13	n/a	n/a	Weight: 227 lb	FT = 20%
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S								

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 1-5,9-14: 2x4 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	2x4 SPF No.2 *Except* 2-22: 2x8 SP 2400F 2.0E, 20-22,18-20: 2x4 SPF 1650F 1.5E 13-16: 2x4 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 6-19, 8-19
SLIDER	Right 2x4 SPF No.2 2-11-1		

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=-182(LC 13)
Max Uplift 2=-266(LC 12), 13=-266(LC 13)
Max Grav 2=2496(LC 1), 13=2496(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7611/856, 3-4=-7387/955, 4-6=-4494/524, 6-7=-3006/395, 7-8=-3009/395,
8-10=-3842/423, 10-11=-4049/441, 11-13=-4346/453
BOT CHORD 2-22=-892/6732, 21-22=-493/4327, 19-21=-295/3331, 18-19=-155/3360, 8-18=-100/814,
15-17=-4/250, 13-15=-321/3674
WEBS 4-22=-478/2755, 4-21=-996/267, 6-21=-179/1215, 6-19=-1210/300, 7-19=-216/2076,
8-19=-1231/281, 15-18=-224/3415, 10-18=-461/176

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 22-0-0, Exterior(2R) 22-0-0 to 25-0-0, Interior(1) 25-0-0 to 44-10-8 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
 - 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) 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 266 lb uplift at joint 2 and 266 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 29,2021

Job 2846773	Truss A9A	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Summit/28 Woodside 146777164
Job Reference (optional)					

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:35 2021 Page 1

ID: b0jcEzO0th2MAe1aMpWBnxzu4zl-gYJ9JXhe97AJ0QLUukc2Jamk1tBbxfFbsKMptz1i6

-0-10-8 4-3-8 10-2-5 15-7-11 22-0-0 27-10-8 29-10-8 35-9-8 41-8-8 42-4-0 44-10-8
 0-10-8 4-3-8 5-10-13 5-5-6 6-4-5 5-10-8 0-5-13 5-11-0 5-11-0 0-7-8 0-10-8
 5x8 = 1-6-3 1-8-0

Scale = 1:86.3

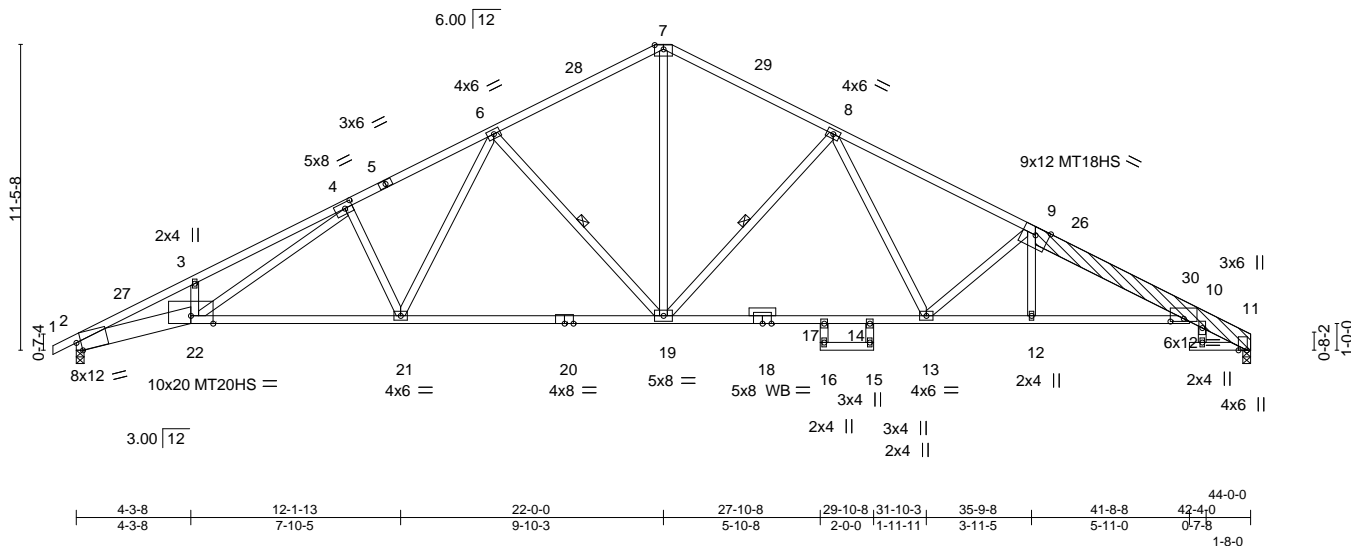


Plate Offsets (X,Y)-- [2:0-2-1,Edge], [4:0-3-7,0-2-8], [10:0-6-0,0-1-4], [11:0-0-0,Edge]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.85	Vert(LL)	-0.40 17-19 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-1.01 17-19 >517 180	MT20HS	148/108
BCLL	0.0	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.54 11 n/a n/a	MT18HS	197/144
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S				Weight: 248 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E *Except*
 1-5: 2x4 SP 2400F 2.0E, 9-11: 2x8 SP 2400F 2.0E
BOT CHORD 2x4 SPF No.2 *Except*
 2-22: 2x8 SP 2400F 2.0E, 20-22,10-18,18-20: 2x4 SPF 1650F 1.5E
WEBS 2x4 SPF No.2
OTHERS 2x8 SP 2400F 2.0E *Except*
 18-18: 2x4 SPF No.2
LBR SCAB 9-11 2x8 SP 2400F 2.0E one side

BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 2-2-0 oc bracing: 10-12.
WEBS 1 Row at midpt 6-19, 8-19

REACTIONS.

(size) 2=0-3-8, 11=0-3-8
 Max Horz 2=187(LC 12)
 Max Uplift 2=266(LC 12), 11=245(LC 13)
 Max Grav 2=2497(LC 1), 11=2406(LC 1)

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

TOP CHORD 2-3=-7624/863, 3-4=-7407/965, 4-6=-4486/520, 6-7=-3023/392, 7-8=-3030/397,
 8-9=-4539/470, 9-10=-5365/524, 10-11=-838/102
BOT CHORD 2-22=-905/6746, 21-22=-497/4319, 19-21=-316/3405, 17-19=-188/3415, 14-17=-205/3330,
 13-14=-188/3415, 12-13=-397/4963, 10-12=-399/4958
WEBS 4-22=-489/2783, 4-21=-965/254, 6-21=-167/1153, 6-19=-1235/305, 7-19=-211/2059,
 8-19=-1248/306, 8-13=-122/1098, 9-13=-1359/277

NOTES-

- Attached 9-3-7 scab 9 to 11, front face(s) 2x8 SP 2400F 2.0E with 2 row(s) of 10d (0.131"x3") nails spaced 9" o.c. except : starting at 0-0-8 from end at joint 9, nail 2 row(s) at 4" o.c. for 2-0-0; starting at 4-7-2 from end at joint 9, nail 2 row(s) at 3" o.c. for 2-11-12.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 22-0-0, Exterior(2R) 22-0-0 to 25-0-0, Interior(1) 25-0-0 to 43-10-4 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
- 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) 2, 11 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 266 lb uplift at joint 2 and 245 lb uplift at joint 11.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 29, 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

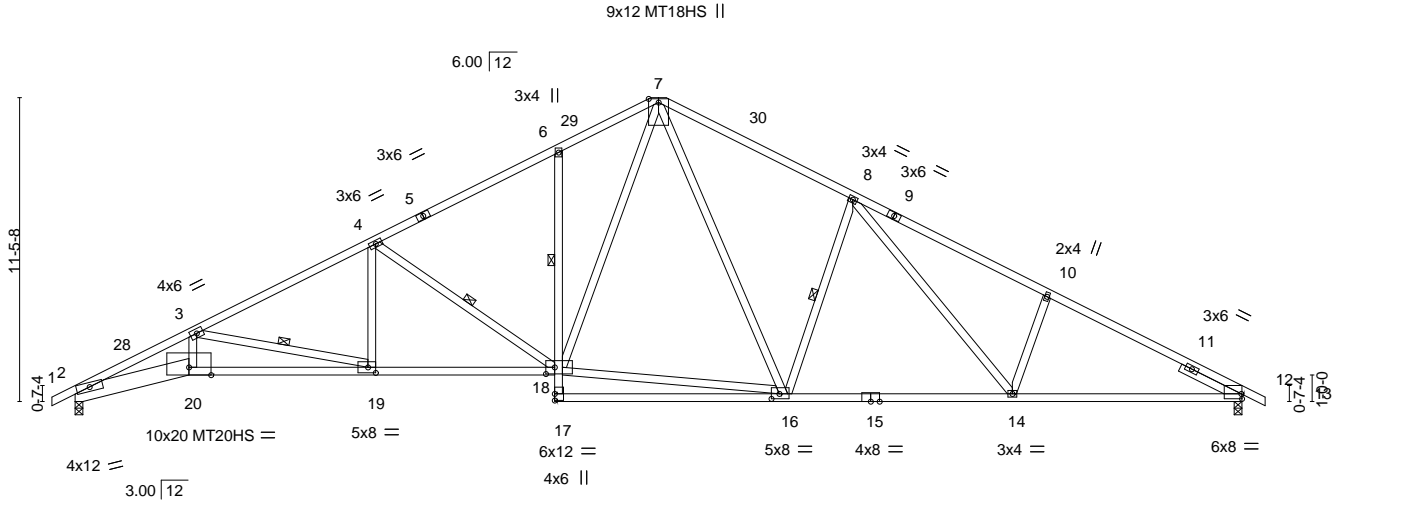
Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777165
2846773	A10	Roof Special	1	1	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:02 2021 Page 1

ID:b0jcEz00th2MAe1aMpWBnxzu4zl8CphOFIw_0_ZLK8SJWJTdu3cZshinwP0Dq781z1iid

0-10-8	4-3-8	11-2-4	18-1-0	22-0-0	29-3-14	36-7-13	44-0-0	44-10-8
0-10-8	4-3-8	6-10-12	6-10-12	3-11-0	7-3-14	7-3-14	7-4-3	0-10-8

Scale = 1:86.9



	4-3-8	11-2-4	18-1-0	26-8-9	35-4-2	44-0-0
	4-3-8	6-10-12	6-10-12	8-7-9	8-7-9	8-7-14

Plate Offsets (X,Y)-- [12:Edge,0-2-4], [16:0-3-10,0-2-4], [18:0-4-0,0-3-0], [19:0-3-8,0-2-8]

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 0.96	Vert(LL)	-0.32 18-19	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.73 18-19	>723	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	YES	WB 0.65	Horz(CT)	0.32 12	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 224 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except*	TOP CHORD Structural wood sheathing directly applied.
1-5,9-13: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied. Except:
BOT CHORD 2x4 SPF No.2 *Except*	1 Row at midpt 6-18
2-20: 2x8 SP 2400F 2.0E, 18-20,12-15: 2x4 SP 2400F 2.0E	WEBS 1 Row at midpt 3-19, 4-18, 8-16
WEBS 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 12=0-3-8
Max Horz 2=180(LC 12)
Max Uplift 2=265(LC 12), 12=266(LC 13)
Max Grav 2=2490(LC 1), 12=2504(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7209/821, 3-4=-4804/503, 4-6=-3594/409, 6-7=-3458/485, 7-8=-3311/453,
8-10=-4091/510, 10-12=-4243/443
BOT CHORD 2-20=-864/6479, 19-20=-838/6270, 18-19=-462/4221, 6-18=-425/175, 14-16=-168/3123,
12-14=-294/3687
WEBS 3-20=-104/1160, 3-19=-2099/385, 4-19=-26/677, 4-18=-1393/285, 16-18=-115/2261,
7-18=-309/1666, 7-16=-245/974, 8-16=-961/310, 8-14=-163/725, 10-14=-466/207

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 22-0-0, Exterior(2R) 22-0-0 to 25-0-0, Interior(1) 25-0-0 to 44-10-8 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) All plates are MT20 plates unless otherwise indicated.
 - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 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 265 lb uplift at joint 2 and 266 lb uplift at joint 12.
 - 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.



June 29,2021

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777166
2846773	A11	Hip	1	1		

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:03 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-cON3bbiZh8rAVvK001Y0rRliZGCREHYEtaghkz1iic

-0-10-8	4-3-8	11-2-4	18-1-0	19-10-8	24-1-8	30-8-14	37-4-5	44-0-0	44-10-8
0-10-8	4-3-8	6-10-12	6-10-12	1-9-8	4-3-0	6-7-6	6-7-6	6-7-11	0-10-8

Scale = 1:79.6

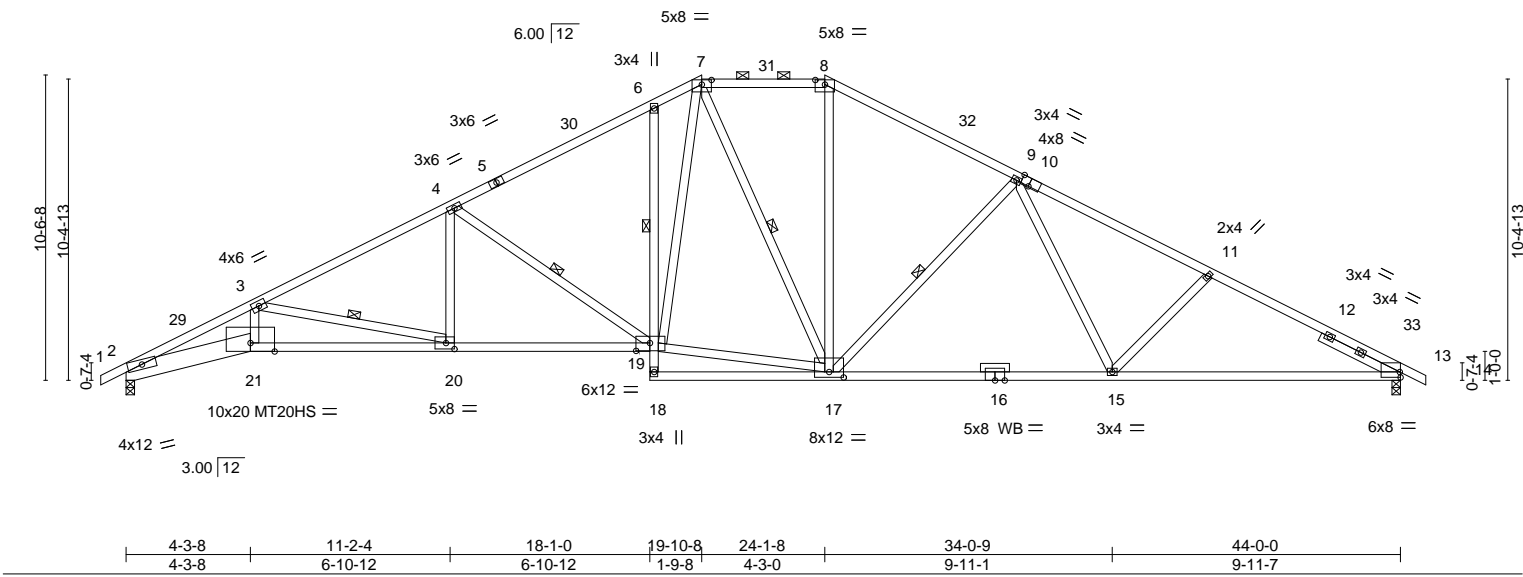


Plate Offsets (X,Y)--		[7:0-4-0,0-1-15], [8:0-4-0,0-1-15], [10:0-3-8,Edge], [13:Edge,0-2-4], [17:0-6-0,0-2-4], [19:0-5-12,0-3-4], [20:0-3-8,0-2-8]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.32	19-20	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.76	15-17	>694	180	MT20HS	148/108	
BCLL	0.0	Rep Stress Incr	YES	WB	0.65	Horz(CT)	0.33	13	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 230 lb	FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2 *Except* 1-5,10-14: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-4-11 max.): 7-8.
BOT CHORD 2x4 SPF No.2 *Except* 2-21: 2x8 SP 2400F 2.0E, 19-21,13-16: 2x4 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied. Except: 1 Row at midpt 6-19
WEBS 2x4 SPF No.2	WEBS 1 Row at midpt 3-20, 4-19, 7-17, 9-17
OTHERS 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 3-0-0	

REACTIONS.	(size) 2=0-3-8, 13=0-3-8
	Max Horz 2=164(LC 17)
	Max Uplift 2=269(LC 12), 13=270(LC 13)
	Max Grav 2=2490(LC 1), 13=2504(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-7209/823, 3-4=-4804/510, 4-6=-3594/421, 6-7=-3413/480, 7-8=-2602/396, 8-9=-3058/404, 9-11=-3968/444, 11-13=-4238/463
BOT CHORD	2-21=-848/6479, 20-21=-824/6270, 19-20=-452/4221, 6-19=-285/154, 15-17=-207/3240, 13-15=-318/3700
WEBS	3-21=-101/1161, 3-20=-2099/381, 4-20=-25/676, 4-19=-1392/285, 17-19=-131/2638, 7-19=-296/1617, 7-17=-602/140, 8-17=-84/800, 9-17=-933/260, 9-15=-53/537, 11-15=-391/185

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 19-10-8, Exterior(2E) 19-10-8 to 24-1-8, Exterior(2R) 24-1-8 to 28-4-7, Interior(1) 28-4-7 to 44-10-8 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.
 - 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) 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 269 lb uplift at joint 2 and 270 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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.



June 29,2021

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777168
2846773	A13	Hip	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:07 2021 Page 1

ID:b0jcEz00th2MAe1aMpWBnxzu4zl-UAdaRyM4lWeHf6C6Fs6UAhbzzadnN0389VYUqVz1iiY

-0-10-8 4-3-8 10-1-0 15-10-8 18-1-0 23-1-4 28-1-8 36-0-9 44-0-0 44-10-8
0-10-8 4-3-8 5-9-8 5-9-8 2-2-8 5-0-4 5-0-4 7-11-1 7-11-7 0-10-8

Scale = 1:79.4

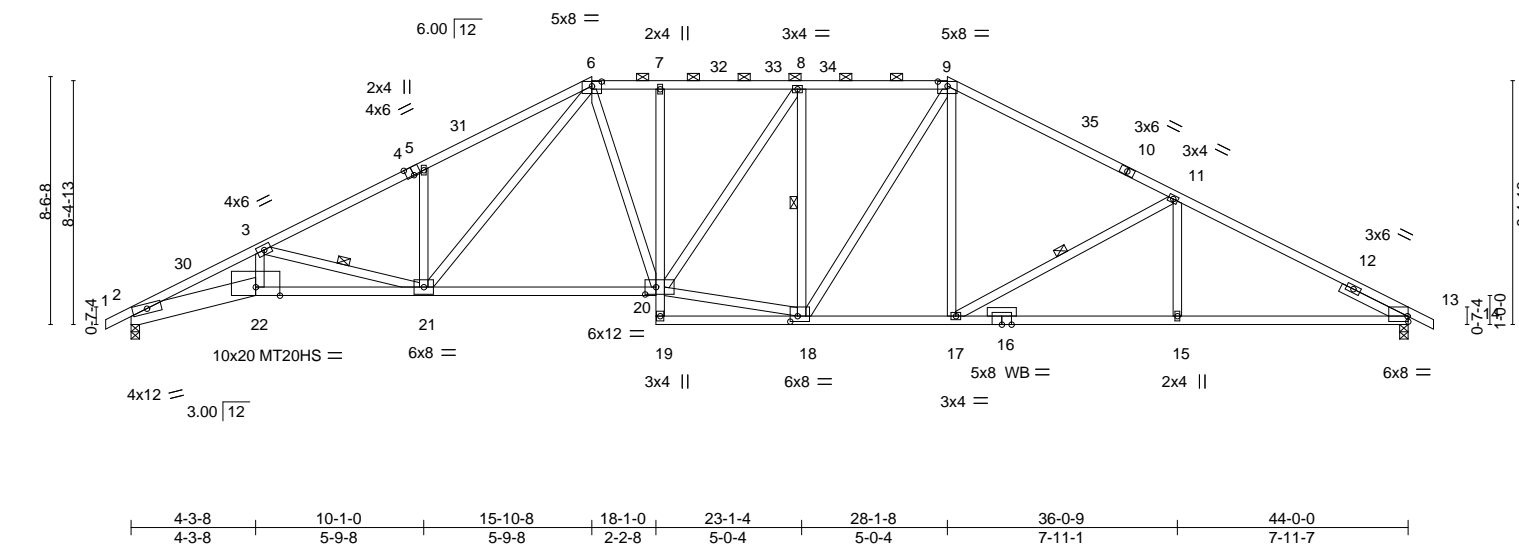


Plate Offsets (X,Y)--										[4:0-3-0,Edge], [6:0-4-0,0-1-15], [9:0-4-0,0-1-15], [13:Edge,0-2-4], [18:0-3-0,0-2-4], [20:0-4-8,0-3-0]									
LOADING (psf)		SPACING-		2-0-0		CSI.		DEFL.		in (loc)		l/defl		L/d		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL		1.15		TC	0.73	Vert(LL)	-0.31	20-21	>999		240		MT20		197/144		
TCDL	20.0	Lumber DOL		1.15		BC	0.99	Vert(CT)	-0.75	20-21	>704		180		MT20HS		148/108		
BCLL	0.0	Rep Stress Incr		YES		WB	0.79	Horz(CT)	0.33	13	n/a		n/a						
BCDL	10.0	Code IRC2018/TPI2014				Matrix-AS										Weight: 232 lb		FT = 20%	

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E *Except*	TOP CHORD Structural wood sheathing directly applied, except
6-9: 2x4 SPF No.2, 1-4,10-14: 2x4 SPF 1650F 1.5E	2-0-0 oc purlins (2-7-14 max.): 6-9.
BOT CHORD 2x4 SP 2400F 2.0E *Except*	BOT CHORD Rigid ceiling directly applied.
2-22: 2x8 SP 2400F 2.0E, 7-19,16-19: 2x4 SPF No.2	WEBS 1 Row at midpt 3-21, 8-18, 11-17
WEBS 2x4 SPF No.2	
OTHERS 2x4 SPF No.2	
SLIDER Right 2x4 SPF No.2 2-6-0	

REACTIONS. (size) 2=0-3-8, 13=0-3-8
Max Horz 2=131(LC 12)
Max Uplift 2=275(LC 12), 13=277(LC 13)
Max Grav 2=2490(LC 1), 13=2504(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-7152/819, 3-5=-4999/541, 5-6=-5035/664, 6-7=-3625/430, 7-8=-3615/431,
8-9=-3268/419, 9-11=-3534/401, 11-13=-4237/459
BOT CHORD 2-22=-809/6419, 21-22=-784/6214, 20-21=-269/3410, 7-20=-397/100, 17-18=-153/3018,
15-17=-303/3680, 13-15=-303/3680
WEBS 3-22=-108/1128, 3-21=-1867/336, 5-21=-545/209, 18-20=-161/3212, 8-20=-134/667,
8-18=-1054/179, 9-18=-130/666, 9-17=-54/539, 11-17=-770/227, 11-15=0/272,
6-21=-303/1591, 6-20=-119/851

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 15-10-8, Exterior(2R) 15-10-8 to 20-1-7, Interior(1) 20-1-7 to 28-1-8, Exterior(2R) 28-1-8 to 32-4-7, Interior(1) 32-4-7 to 44-10-8 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.
 - 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) 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 275 lb uplift at joint 2 and 277 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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.



June 29,2021

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



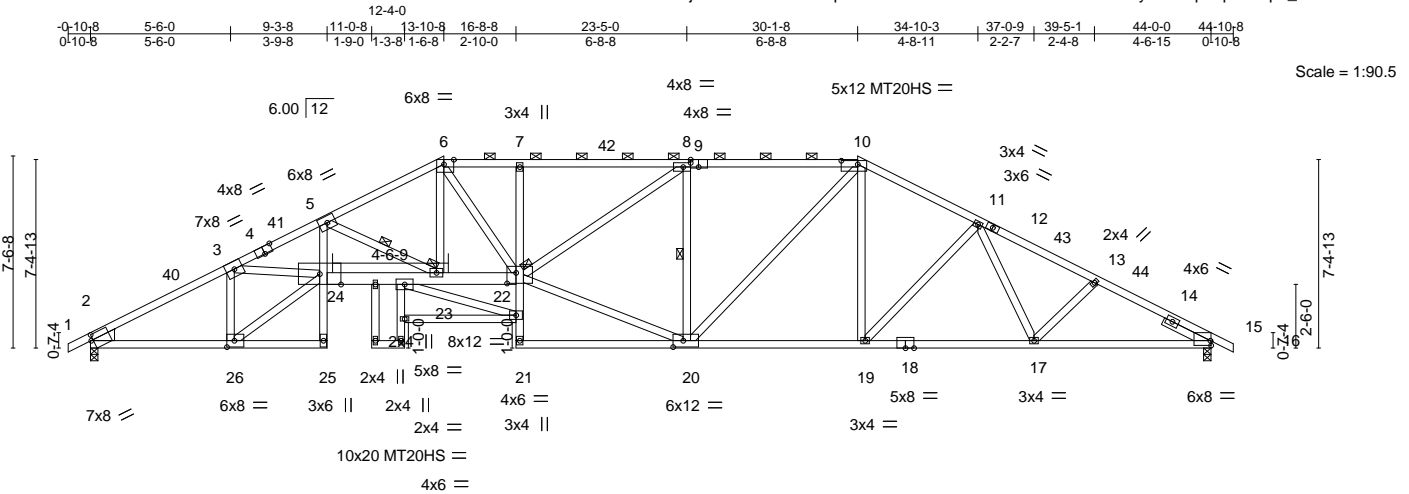
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777169
2846773	A14	HIP	1	1	Job Reference (optional)	

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

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LUMBER-
TOP CHORD 2x4 SPF 1650F 1.5E *Except*
4-6: 2x4 SP 2400F 2.0E, 10-12: 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-25,15-18: 2x4 SP 2400F 2.0E, 22-24: 2x6 SP 2400F 2.0E
WEBS 2x4 SPF No.2 *Except*
24-26: 2x4 SP 2400F 2.0E, 3-24: 2x4 SPF 1650F 1.5E
WEDGE
Left: 2x6 SPF No.2
SLIDER Right 2x4 SPF No.2 2-0-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-2-3 max.): 6-10.
BOT CHORD Rigid ceiling directly applied. Except:
10-0-0 oc bracing: 21-22
WEBS 1 Row at midpt 8-20, 5-23
JOINTS 1 Brace at Jt(s): 22, 23

REACTIONS. (size) 2=0-3-8, 15=0-3-8
Max Horz 2=-75(LC 10)
Max Uplift 2=-18(LC 12), 15=-18(LC 13)
Max Grav 2=2490(LC 1), 15=2504(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-4329/427, 3-5=-8851/808, 5-6=-5741/562, 6-7=-5499/579, 7-8=-5513/583,
8-10=-3763/470, 10-11=-3671/438, 11-13=-4074/435, 13-15=-4230/430
BOT CHORD 2-26=-304/3747, 5-24=-170/2482, 23-24=-596/7875, 22-23=-297/5038, 7-22=-510/114,
19-20=-195/3207, 17-19=-282/3555, 15-17=-320/3654
WEBS 8-20=-1898/216, 10-20=-84/959, 10-19=-38/528, 3-26=-2745/265, 24-26=-361/4454,
3-24=-287/4141, 20-22=-261/3915, 8-22=-142/2130, 6-23=-110/1507, 5-23=-3115/333,
11-19=-504/125, 6-22=-106/991

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 13-10-8, Exterior(2R) 13-10-8 to 20-1-3, Interior(1) 20-1-3 to 30-1-8, Exterior(2R) 30-1-8 to 36-4-3, Interior(1) 36-4-3 to 44-10-8 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.
- 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 18 lb uplift at joint 2 and 18 lb uplift at joint 15.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



June 29,2021

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

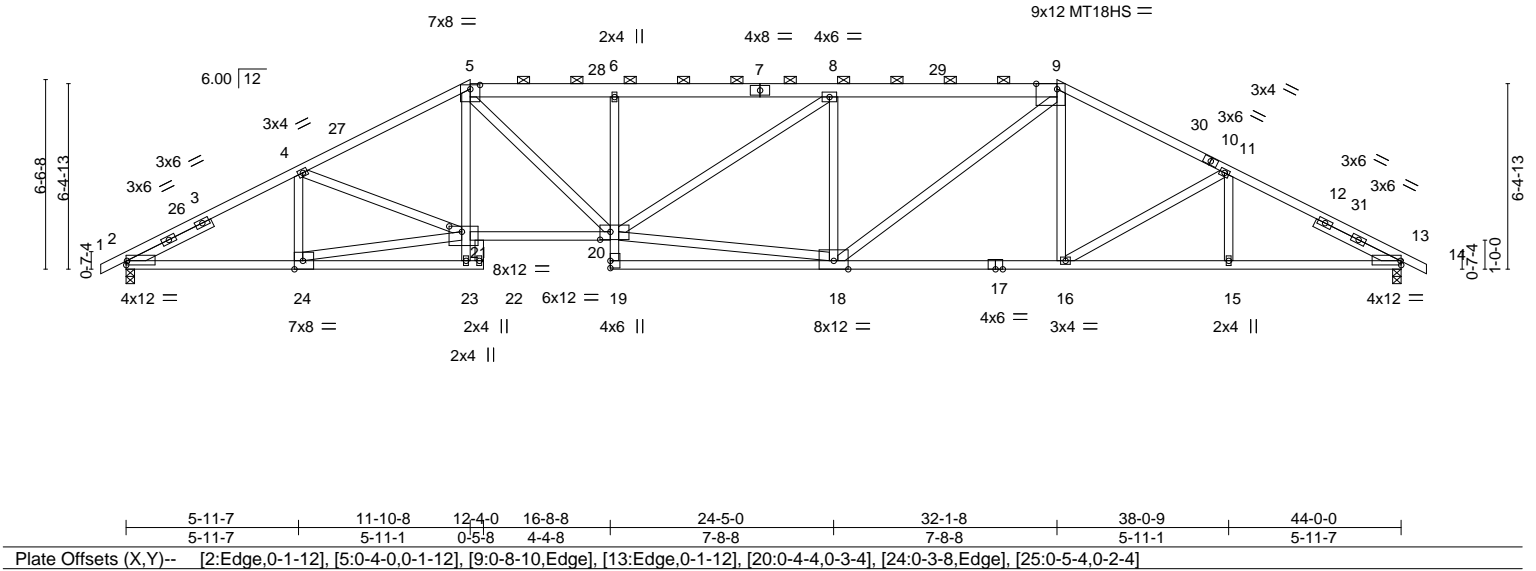
Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777170
2846773	A15	HIP	1	1	Job Reference (optional)	

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

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ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-vkli3_Oy2R0sWaxhw_fBoJDSAofSaL_arTmYRqz1iiV

-0-10-8	5-11-7	11-10-8	12-4-0	16-8-8	24-5-0	32-1-8	38-0-9	44-0-0	44-10-8
0-10-8	5-11-7	5-11-1	0-5-8	4-4-8	7-8-8	7-8-8	5-11-1	5-11-7	0-10-8

Scale = 1:79.5



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 0.86	Vert(LL)	-0.28	6	>999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.92	Vert(CT)	-0.65	18-19	>806	MT18HS	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.91	Horz(CT)	0.26	13	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						
								Weight: 235 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP 2400F 2.0E *Except* 5-7,7-9: 2x6 SPF No.2, 9-10: 2x4 SPF 1650F 1.5E	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (2-10-9 max.): 5-9.
BOT CHORD 2x4 SPF No.2 *Except* 2-22,13-17: 2x4 SP 2400F 2.0E, 20-21: 2x4 SPF 1650F 1.5E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 2-2-0 oc bracing: 16-18.
WEBS 2x4 SPF No.2 *Except* 18-20: 2x4 SPF 1650F 1.5E	
SLIDER Left 2x4 SPF No.2 3-2-12, Right 2x4 SPF No.2 3-2-12	

REACTIONS.	(size) 2=0-3-8, 13=0-3-8 Max Horz 2=98(LC 16) Max Uplift 2=277(LC 12), 13=281(LC 13) Max Grav 2=2505(LC 1), 13=2499(LC 1)
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FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-4=-4396/461, 4-5=-4639/503, 5-6=-4988/529, 6-8=-4953/526, 8-9=-4410/478, 9-11=-3906/442, 11-13=-4378/474
BOT CHORD	2-24=-421/3724, 20-21=-357/4081, 6-20=-657/170, 18-19=-16/274, 16-18=-220/3411, 15-16=-334/3710, 13-15=-334/3710
WEBS	4-24=-542/131, 5-20=-233/1419, 18-20=-378/4167, 8-20=-182/724, 8-18=-1229/265, 9-18=-231/1405, 9-16=-16/401, 11-16=-351/149, 5-21=-58/648, 21-24=-418/3689, 4-21=-100/566

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 11-10-8, Exterior(2R) 11-10-8 to 16-1-7, Interior(1) 16-1-7 to 32-1-8, Exterior(2R) 32-1-8 to 36-4-7, Interior(1) 36-4-7 to 44-10-8 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.
 - 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 277 lb uplift at joint 2 and 281 lb uplift at joint 13.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 29,2021

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

MiTek
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777171
2846773	A16	Hip Structural Gable	1	1	Job Reference (optional)	

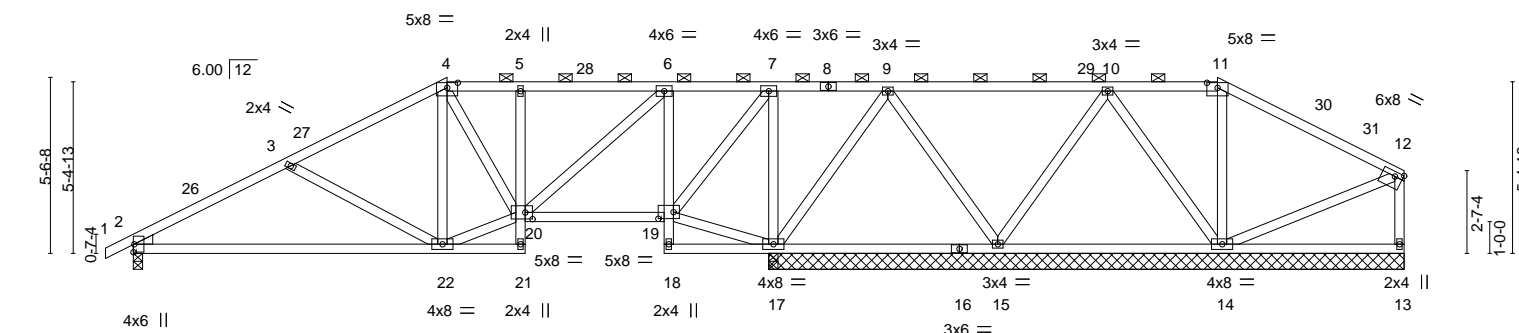
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:12 2021 Page 1

ID:b0jcEz00th2MAe1aMpWBnxzu4zl-r7QTUgPCZ3Gamu532PiftkjqybQq2LFtJnFvJz1iIT

-0-10-8	4-11-7	9-10-8	12-4-0	16-8-8	23-9-0	30-8-0	34-1-8	40-0-0
0-10-8	4-11-7	4-11-1	2-5-8	4-4-8	7-0-8	6-11-0	3-5-8	5-10-8

Scale = 1:72.5



	9-10-8	12-4-0	16-8-8	20-3-8	27-2-8	34-1-8	40-0-0
	9-10-8	2-5-8	4-4-8	3-7-0	6-11-0	6-11-0	5-10-8

Plate Offsets (X,Y)-- [4:0-4-0,0-1-15], [11:0-4-0,0-1-15], [12:Edge,0-1-12], [19:0-5-12,0-2-8], [20:0-2-12,0-2-8]

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 0.71	Vert(LL)	-0.14	22-25	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.30	22-25	>814	180	197/144
BCLL 0.0	Rep Stress Incr	YES	WB 0.54	Horz(CT)	0.02	17	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 189 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.): 4-11.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

All bearings 20-0-0 except (jt=length) 2=0-3-8.
(lb) - Max Horz 2=125(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 13, 15 except 2=135(LC 12), 14=111(LC 13), 17=311(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 13 except 2=987(LC 1), 14=686(LC 26), 17=2105(LC 1), 15=532(LC 26)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1384/219, 3-4=-933/148, 4-5=-713/149, 5-6=-727/152, 7-9=-114/771, 9-10=-47/264
BOT CHORD 2-22=-212/1173, 5-20=-336/95, 6-19=-1067/221, 15-17=-323/118
WEBS 3-22=-490/169, 20-22=-39/788, 6-20=-172/1013, 11-14=-390/103, 7-17=-1098/199, 17-19=-777/204, 7-19=-171/1145, 9-17=-785/150, 10-15=-506/126

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-10-8, Exterior(2R) 9-10-8 to 14-1-7, Interior(1) 14-1-7 to 34-1-8, Exterior(2R) 34-1-8 to 38-4-7, Interior(1) 38-4-7 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 15 except (jt=lb) 2=135, 14=111, 17=311.
- This truss 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.



June 29,2021

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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 2846773	Truss A17	Truss Type ROOF SPECIAL	Qty 1	Ply 1	Summit/28 Woodside 146777172
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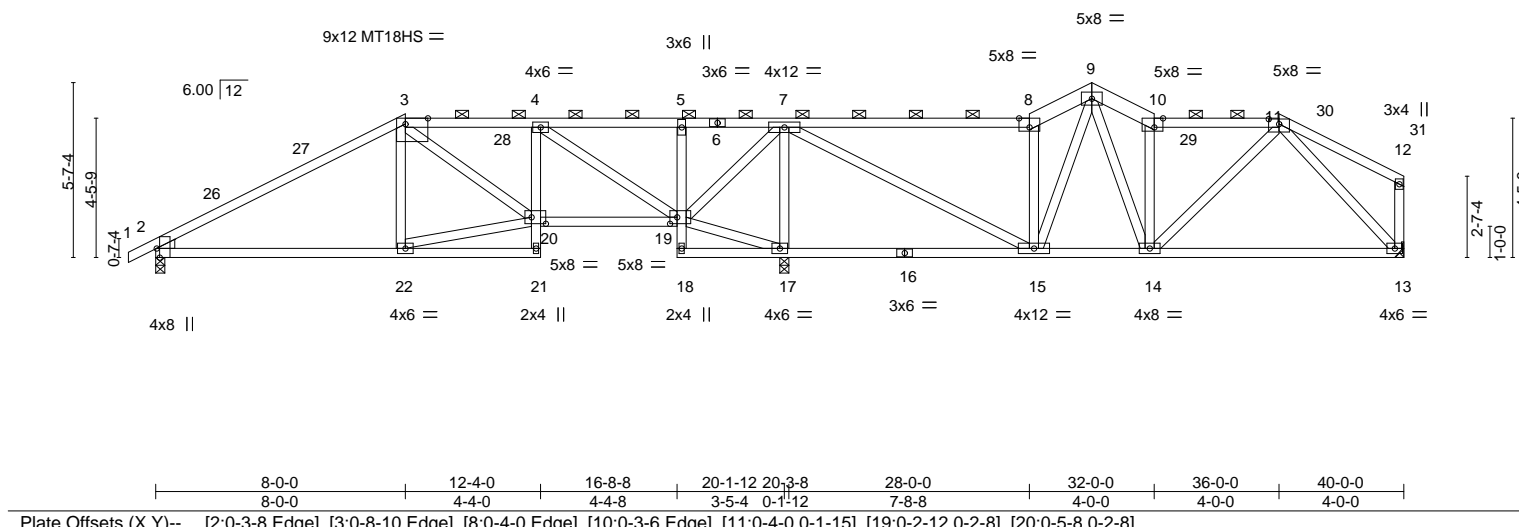
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:14 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-nWYDvMRT5gWI?BFS9qk7y9O89P6TWDMAm5klabz1iIR

0-10-8	8-0-0	12-4-0	16-8-8	20-1-12	22-4-4	28-0-0	30-0-0	32-0-0	36-0-0	40-0-0
0-10-8	8-0-0	4-4-0	4-4-8	3-5-4	2-2-8	5-7-12	2-0-0	2-0-0	4-0-0	4-0-0

Scale = 1:73.8



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL 1.15		TC 0.86		in (loc) l/defl L/d		MT20		197/144	
TCDL	20.0	Lumber DOL 1.15		BC 0.60		Vert(LL) -0.11 13-14 >999 240		MT18HS		197/144	
BCLL	0.0	Rep Stress Incr YES		WB 0.69		Vert(CT) -0.23 13-14 >999 180					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS		Horz(CT) 0.04 13 n/a n/a		Weight: 190 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2 *Except*
8-9,9-10: 2x6 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
16-18: 2x4 SP 2400F 2.0E
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 (4-5-15 max.): 3-8, 10-11.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 2=0-3-8, 17=0-3-8, 13=Mechanical
Max Horz 2=127(LC 11)
Max Uplift 2=152(LC 12), 17=332(LC 12), 13=112(LC 13)
Max Grav 2=998(LC 25), 17=2603(LC 1), 13=875(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1260/202, 3-4=-969/217, 7-8=-748/157, 8-9=-909/200, 9-10=-1001/194,
10-11=-877/157
BOT CHORD 2-22=-164/1002, 4-20=-20/339, 19-20=-160/998, 15-17=-847/132, 14-15=-80/645,
13-14=-108/610
WEBS 20-22=-158/983, 4-19=-1231/182, 17-19=-851/157, 7-19=-151/1014, 7-17=-2172/353,
7-15=-202/1800, 8-15=-937/217, 9-15=-101/265, 9-14=-104/610, 10-14=-718/148,
11-14=-10/378, 11-13=-811/141

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 30-0-0, Exterior(2E) 30-0-0 to 32-0-0, Interior(1) 32-0-0 to 36-0-0, Exterior(2R) 36-0-0 to 39-0-0, Interior(1) 39-0-0 to 39-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=152, 17=332, 13=112.
- This truss 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.



June 29,2021

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

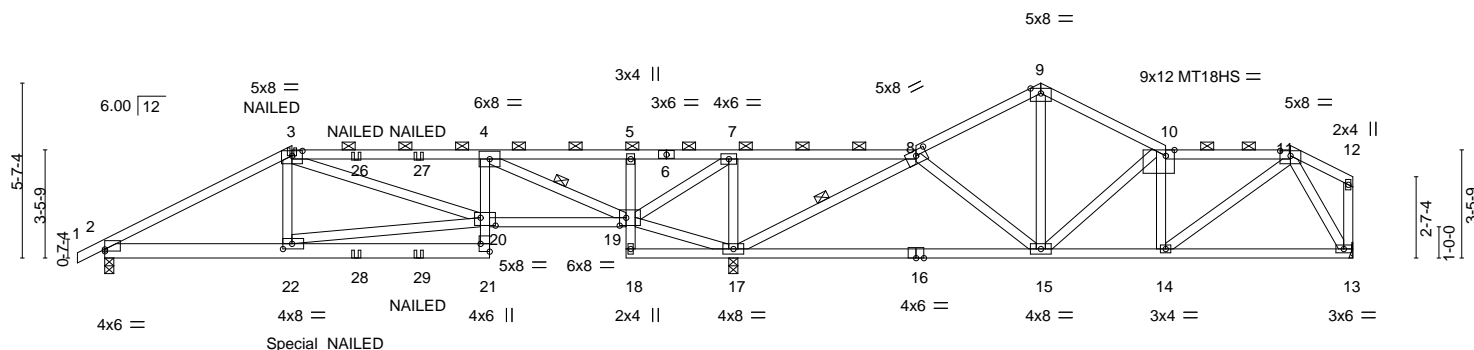
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

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Scale = 1:73.8



	3-0-3	6-0-0	12-4-0	16-8-8	20-1-12	26-0-0	30-0-0	34-0-0	38-0-0	40-0-0
	3-0-3	2-11-13	6-4-0	4-4-8	3-5-4	5-10-4	4-0-0	4-0-0	4-0-0	2-0-0
Plate Offsets (X,Y)--	[2:0-0-0,0-0-11], [3:0-4-0,0-1-15], [8:0-4-0,0-2-0], [10:0-3-6,Edge], [11:0-4-0,0-1-15], [19:0-2-8,0-3-0], [20:0-5-12,0-3-0], [21:Edge,0-3-8], [22:0-3-8,0-2-0]									
LOADING (psf)	SPACING- 2-0-0			CSI.	DEFL. in (loc) l/defl L/d				PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15			TC 0.88	Vert(LL) -0.15 15-17	>999	240		MT20	197/144
TCDL 20.0	Lumber DOL 1.15			BC 0.65	Vert(CT) -0.31 15-17	>775	180		MT18HS	197/144
BCLL 0.0	Rep Stress Incr NO			WB 0.50	Horz(CT) 0.06 13	n/a	n/a			
BCDL 10.0	Code IRC2018/TPI2014			Matrix-MS					Weight: 186 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 3-6,6-8: 2x4 SPF 1650F 1.5E	TOP CHORD	Structural wood sheathing directly applied or 3-3-2 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-10 max.): 3-8, 10-11.
BOT CHORD	2x4 SPF No.2 *Except* 2-21: 2x6 SPF No.2, 16-18: 2x4 SP 2400F 2.0E	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SPF No.2	WEBS	1 Row at midpt 4-19, 8-17

REACTIONS. (size) 2=0-3-8, 13=Mechanical, 17=0-3-8
 Max Horz 2=126(LC 7)
 Max Uplift 2=-290(LC 8), 13=-79(LC 9), 17=-493(LC 8)
 Max Grav 2=1466(LC 21), 13=747(LC 1), 17=3180(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2422/498, 3-4=-2018/468, 4-5=-87/595, 5-7=-84/630, 7-8=-346/1949, 8-9=-684/58,
9-10=-674/41, 10-11=-858/79
BOT CHORD 2-22=-456/2071, 21-22=-27/286, 4-20=-12/488, 19-20=-412/1973, 15-17=-227/408,
14-15=75/867, 13-14=-63/377
WEBS 3-22=0/442, 4-19=-2751/567, 8-15=-64/612, 9-15=-37/268, 10-15=-509/114,
10-14=-315/45, 7-17=-1378/310, 17-19=-1916/390, 7-19=-317/1600, 8-17=-2152/295,
11-14=-18/639, 11-13=-712/106, 20-22=-434/1788

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=290, 17=493.
- 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.
- 10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 458 lb down and 150 lb up at 6'-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) 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



June 29, 2021

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

WARNING - verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MM1/473 (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

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	I46777173
2846773	A18	Roof Special Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:16 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: 1-3=-90, 3-8=-90, 8-9=-90, 9-10=-90, 10-11=-90, 11-12=-90, 21-23=-20, 19-20=-20, 13-18=-20
- Concentrated Loads (lb)
 - Vert: 3=-114(F) 22=-458(F) 26=-114(F) 27=-114(F) 28=-59(F) 29=-59(F)



Job 2846773	Truss B1	Truss Type Common Supported Gable	Qty 1	Ply 1	Summit/28 Woodside 146777174
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:36 2021 Page 1

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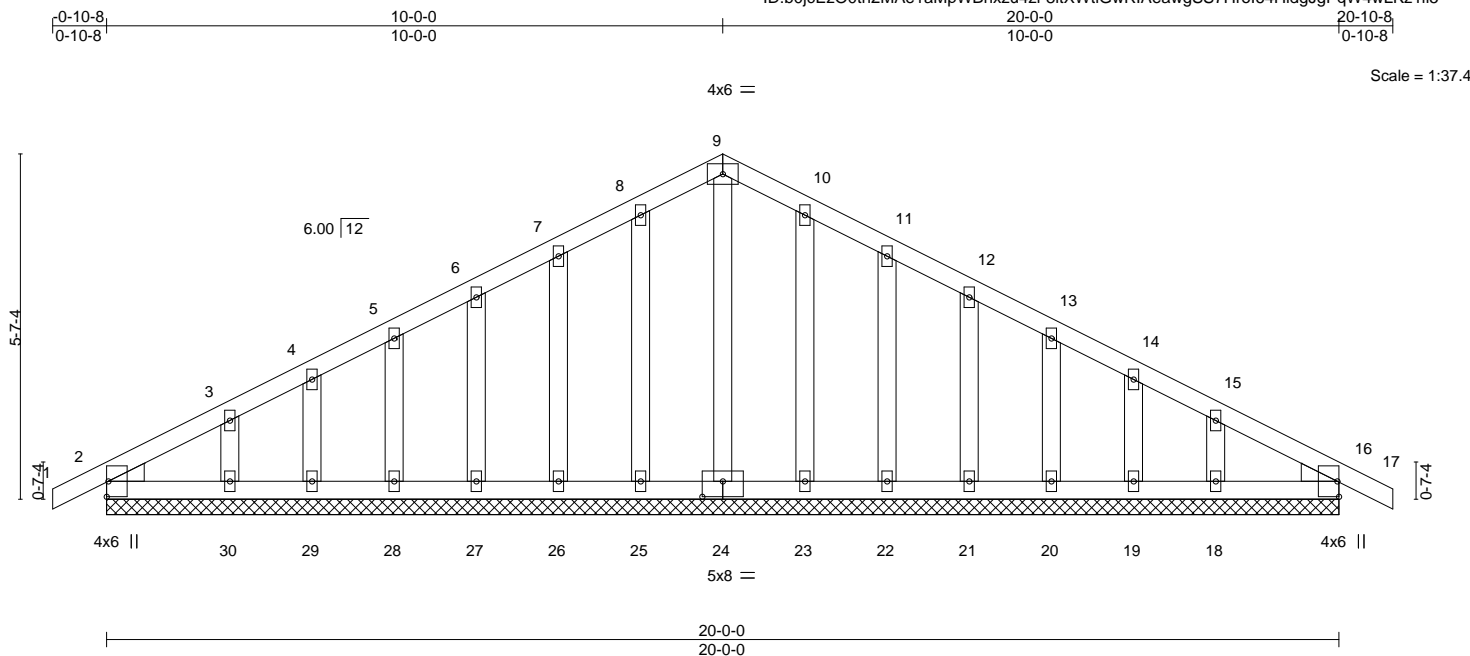


Plate Offsets (X,Y)-- [24:0-4-0,0-3-0]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00 16	n/r	120
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00 16	n/r	120
BCLL 0.0	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00 16	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 95 lb	FT = 20%		

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 20-0-0.
(lb) - Max Horz 2=86(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-0-0, Exterior(2N) 2-0-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 20-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 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.



June 29, 2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777175
2846773	B2	Common	3	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:37 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-cxRvkDjuhKQ1GkVt?9eWO?rDvgwUPiCY3ApTumz1ii4

5-0-3	10-0-0	14-11-13	20-0-0	20-10-8
5-0-3	4-11-13	4-11-13	5-0-3	0-10-8

4x6 =

Scale = 1:36.0

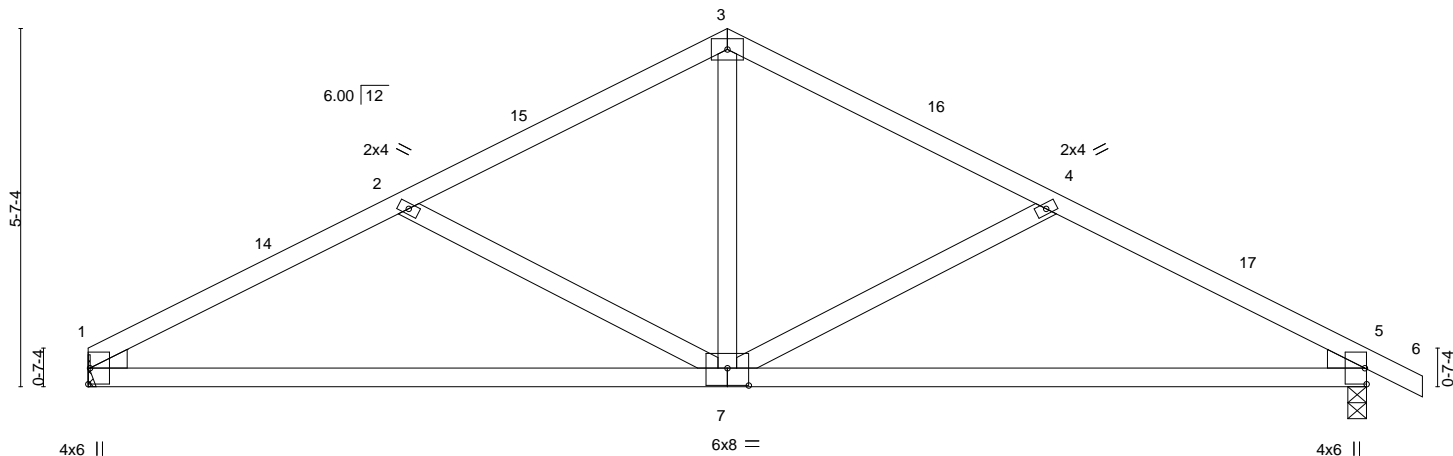


Plate Offsets (X,Y)--		[7:0-4-0,0-3-4]		10-0-0		20-0-0	
				10-0-0		10-0-0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.13 7-10	>999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.28 7-10	>862	180
BCLL 0.0	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.04 5	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				PLATES	GRIP		
				MT20	197/144		
				Weight: 69 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) 1=Mechanical, 5=0-3-8
Max Horz 1=-93(LC 17)
Max Uplift 1=-112(LC 12), 5=-129(LC 13)
Max Grav 1=1098(LC 1), 5=1180(LC 1)

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

TOP CHORD 1-2=-1770/306, 2-3=-1323/242, 3-4=-1323/240, 4-5=-1765/301
BOT CHORD 1-7=-197/1511, 5-7=-196/1504
WEBS 3-7=-64/638, 4-7=-499/178, 2-7=-507/179

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=112, 5=129.
- This truss 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.



June 29, 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 2846773	Truss B3	Truss Type Common	Qty 5	Ply 1	Summit/28 Woodside	146777176
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

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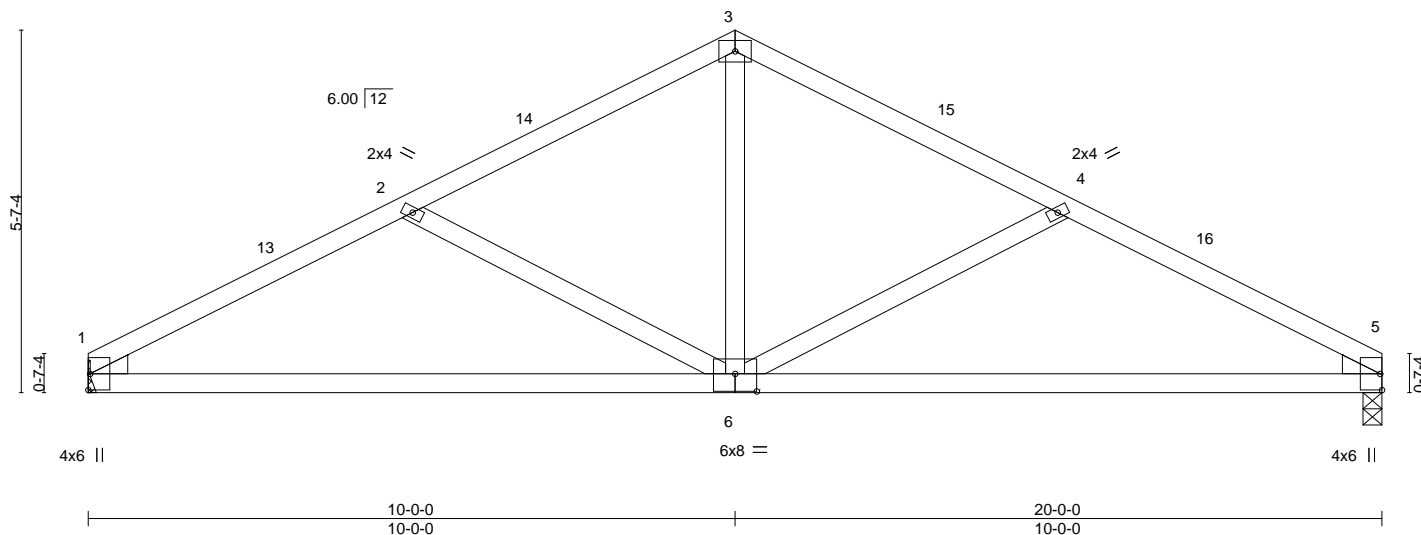
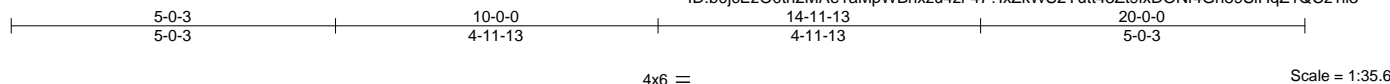


Plate Offsets (X,Y)--		[6:0-4-0,0-3-4]		10-0-0		20-0-0		10-0-0	
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.31	Vert(LL)	-0.13 6-9	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.28 6-9	>866	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.04 5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 68 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) 1=Mechanical, 5=0-3-8
Max Horz 1=79(LC 16)
Max Uplift 1=-112(LC 12), 5=-112(LC 13)
Max Grav 1=1100(LC 1), 5=1100(LC 1)

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

TOP CHORD 1-2=-1774/307, 2-3=-1327/243, 3-4=-1327/243, 4-5=-1774/307
BOT CHORD 1-6=-216/1514, 5-6=-211/1514
WEBS 3-6=-64/640, 4-6=-507/180, 2-6=-507/179

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=112, 5=112.
- This truss 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.



June 29, 2021

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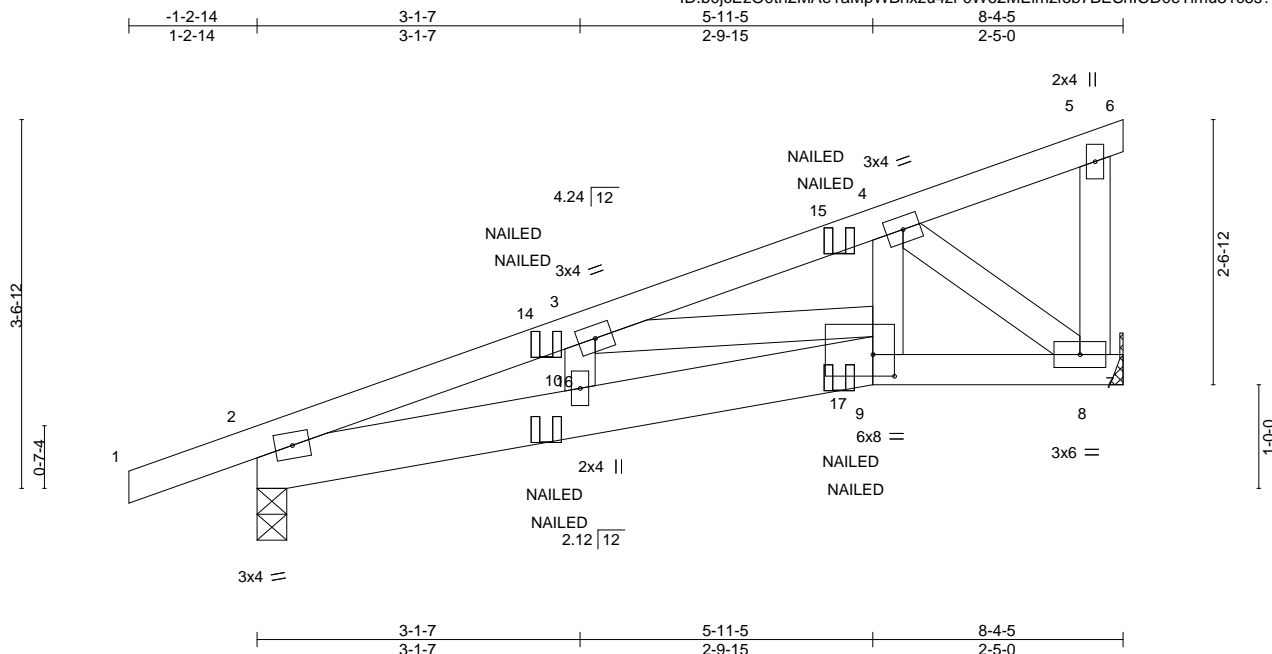


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss CJ2	Truss Type Diagonal Hip Girder	Qty 1	Ply 1	Summit/28 Woodside Job Reference (optional)	146777178
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:40 2021 Page 1
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Scale = 1:22.2

Plate Offsets (X,Y)--		[9:0-2-8,0-2-8]									
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 0.15		Vert(LL) -0.02 10 >999 240		MT20		197/144	
TCDL	20.0	Lumber DOL 1.15		BC 0.31		Vert(CT) -0.04 9-10 >999 180					
BCLL	0.0	Rep Stress Incr NO		WB 0.11		Horz(CT) 0.01 8 n/a n/a					
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP				Weight: 35 lb		FT = 20%	

LUMBER-

TOP CHORD 2x4 SPF No.2
BOT CHORD 2x4 SPF No.2 *Except*
2-9: 2x6 SPF No.2
WEBS 2x4 SPF No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 8=Mechanical, 2=0-3-7
Max Horz 2=116(LC 5)
Max Uplift 8=130(LC 8), 2=-138(LC 4)
Max Grav 8=514(LC 1), 2=599(LC 1)

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

TOP CHORD 2-3=-1072/245, 3-4=-683/159
BOT CHORD 2-10=-273/977, 9-10=-278/1002, 8-9=-170/570
WEBS 3-9=-369/112, 4-9=-79/362, 4-8=-706/212

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; 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 100 lb uplift at joint(s) except (jt=lb) 8=130, 2=138.
- 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: 1-5=-90, 5-6=-40, 9-11=-20, 7-9=-20
Concentrated Loads (lb)
Vert: 15=-4(F=-2, B=-2) 16=-15(F=-8, B=-8) 17=-76(F=-38, B=-38)



June 29,2021

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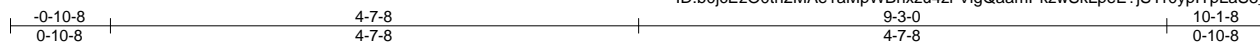
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss D1	Truss Type Common Supported Gable	Qty 1	Ply 1	Summit/28 Woodside Job Reference (optional)	146777179
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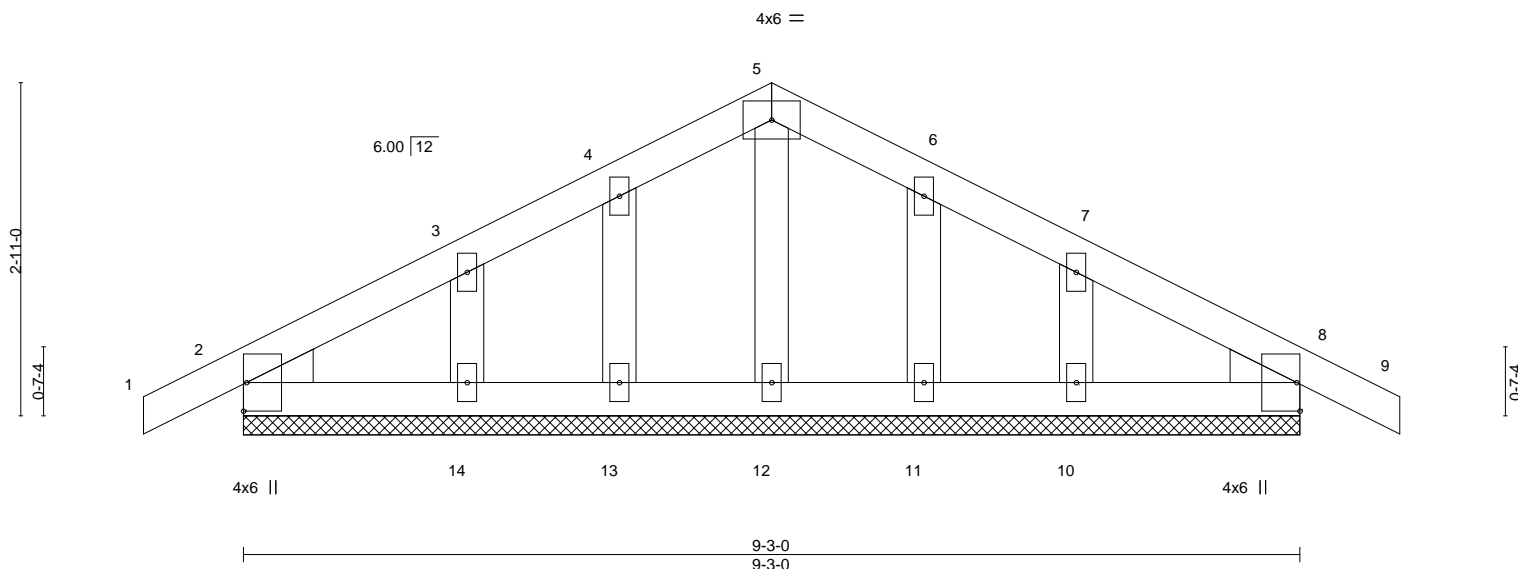
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:41 2021 Page 1

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Scale = 1:20.2



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	-0.00	8	n/r	120	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	9	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 35 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

All bearings 9-3-0.
(lb) - Max Horz 2=-44(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 1-11-8, Exterior(2N) 1-11-8 to 4-7-8, Corner(3R) 4-7-8 to 7-7-8, Exterior(2N) 7-7-8 to 10-1-8 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
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
- 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.



June 29,2021

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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

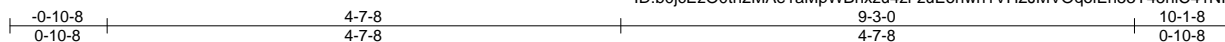
Job 2846773	Truss D2	Truss Type Common	Qty 4	Ply 1	Summit/28 Woodside Job Reference (optional)	146777180
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Builders FirstSource (Valley Center),

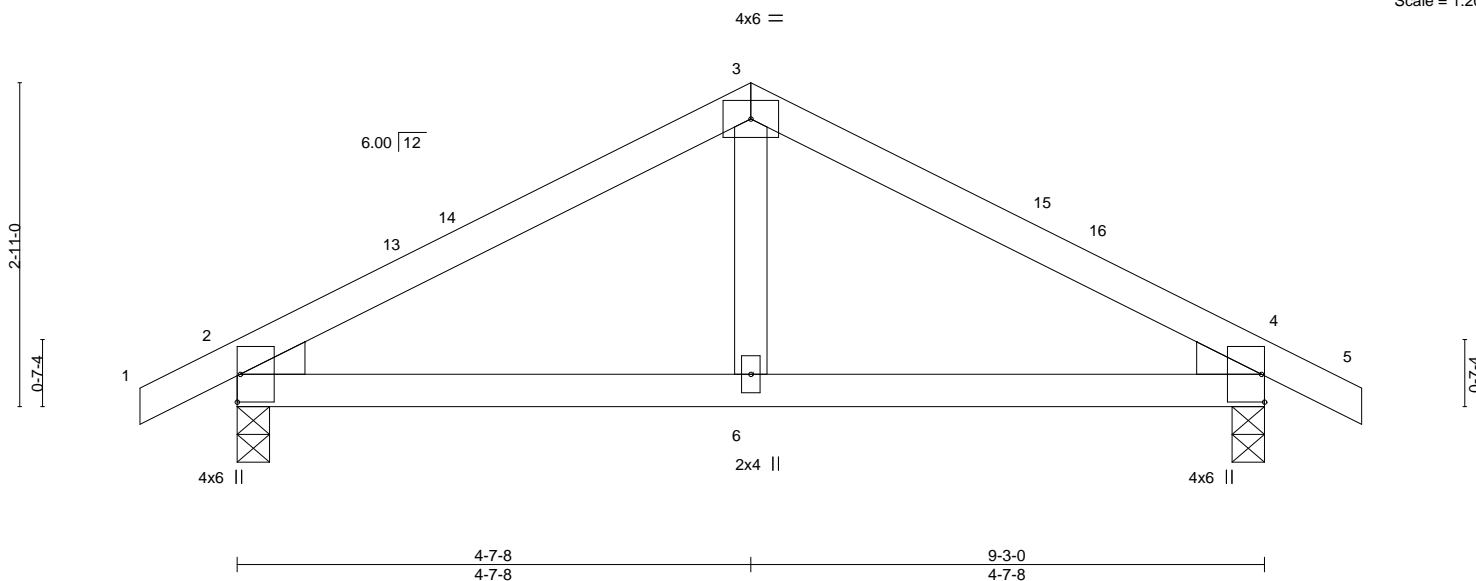
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:42 2021 Page 1

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Scale = 1:20.7



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 0.22	Vert(LL)	-0.02	6-9	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.20	Vert(CT)	-0.03	6-9	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 29 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

REACTIONS.

(size) 2=0-3-8, 4=0-3-8

Max Horz 2=-44(LC 13)

Max Uplift 2=-69(LC 12), 4=-69(LC 13)

Max Grav 2=587(LC 1), 4=587(LC 1)

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

TOP CHORD 2-3=-637/220, 3-4=-637/220

BOT CHORD 2-6=-93/500, 4-6=-93/500

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-7-8, Exterior(2R) 4-7-8 to 7-7-8, Interior(1) 7-7-8 to 10-1-8 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
- 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) 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



June 29,2021

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

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

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

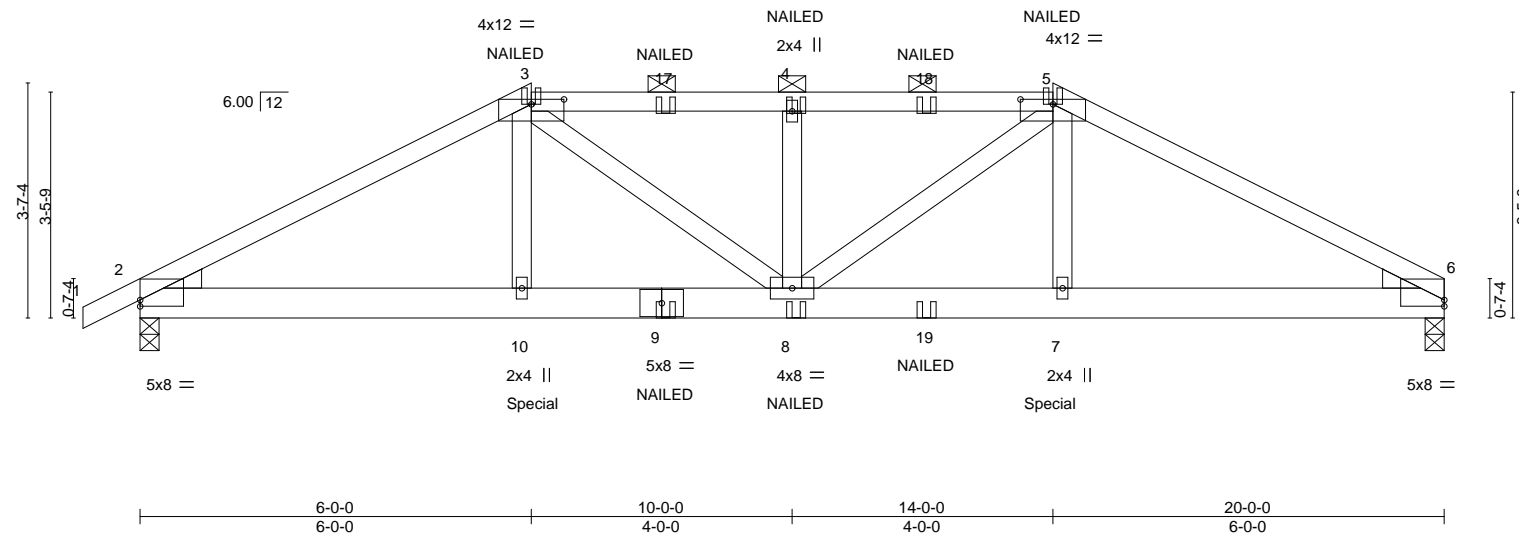
Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777181
2846773	E1	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:44 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-vHMZCcoH1ul1boXDw7G9AUeFNVGgYU5agm0Lcsz1ihz

0-10-8	3-0-3	6-0-0	10-0-0	14-0-0	16-11-13	20-0-0
0-10-8	3-0-3	2-11-13	4-0-0	4-0-0	2-11-13	3-0-3

Scale = 1:35.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.94	in (loc) l/defl L/d	MT20	197/144
TCDL 20.0	Plate Grip DOL 1.15	BC 0.90	Vert(LL) -0.12 8 >999 240		
BCLL 0.0	Lumber DOL 1.15	WB 0.22	Vert(CT) -0.23 8 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.06 6 n/a n/a		
	Code IRC2018/TPI2014			Weight: 84 lb	FT = 20%

LUMBER-

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

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

BRACING-

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-5-3 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 9-5-0 oc bracing.

REACTIONS.

(size) 6=0-3-8, 2=0-3-8
Max Horz 2=59(LC 8)
Max Uplift 6=377(LC 9), 2=394(LC 8)
Max Grav 6=1929(LC 1), 2=2010(LC 1)

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

TOP CHORD 2-3=-3515/720, 3-4=-3656/758, 4-5=-3656/758, 5-6=-3527/723
BOT CHORD 2-10=-617/3044, 8-10=-614/3021, 7-8=-571/3032, 6-7=-574/3055
WEBS 3-10=-64/496, 5-7=-66/505, 4-8=-741/267, 5-8=-201/894, 3-8=-203/903

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=377, 2=394.
- This truss 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) 458 lb down and 150 lb up at 6-0-0, and 458 lb down and 150 lb up at 13-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-90, 3-5=-90, 5-6=-90, 11-14=-20



June 29,2021

Continued on page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	I46777181
2846773	E1	Hip Girder	1	1	Job Reference (optional)	

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

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:44 2021 Page 2
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-vHMZCcoH1ul1boXDw7G9AUeFNVGqYu5agm0Lcsz1ihz

LOAD CASE(S) Standard
Concentrated Loads (lb)
Vert: 3=-114(F) 5=-114(F) 9=-59(F) 10=-458(F) 7=-458(F) 4=-114(F) 8=-59(F) 17=-114(F) 18=-114(F) 19=-59(F)

Job 2846773	Truss E2	Truss Type HIP	Qty 1	Ply 1	Summit/28 Woodside 146777182
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

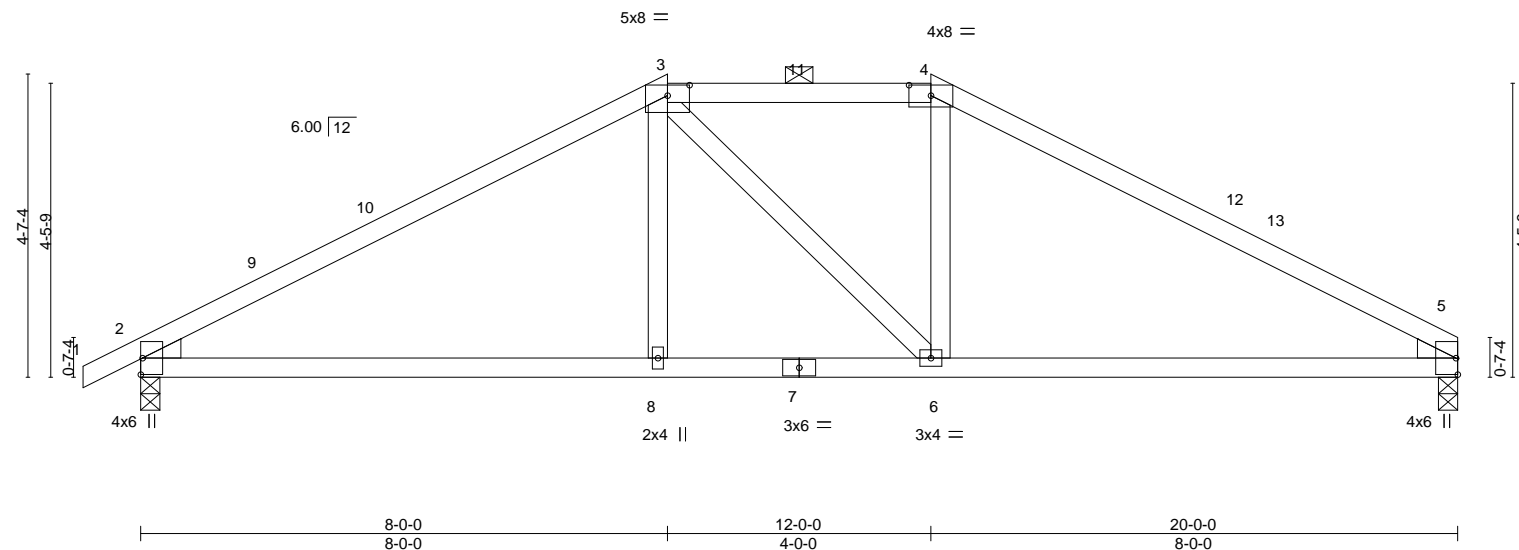
8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:45 2021 Page 1

ID:b0JcEzO0th2MAe1aMpWBnxzu4zI-NTwxPypvoCQuDy6PTmOjhARDvfdHNGkuQlu9Iz1ihy

Job Reference (optional)

0-10-8	8-0-0	12-0-0	20-0-0
0-10-8	8-0-0	4-0-0	8-0-0

Scale = 1:35.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	2-0-0	TC	0.87	Vert(LL)	-0.12	MT20		197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.30				
BCLL	0.0	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.04				
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S							
								Weight: 73 lb FT = 20%			

LUMBER-

TOP CHORD 2x4 SP 2400F 2.0E *Except*
3-4: 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 2-2-0 oc purlins, except 2-0-0 oc purlins (4-7-15 max.): 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 2=0-3-8, 5=0-3-8
Max Horz 2=71(LC 12)
Max Uplift 2=134(LC 12), 5=114(LC 13)
Max Grav 2=1178(LC 1), 5=1082(LC 1)

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

TOP CHORD 2-3=-1628/220, 3-4=-1286/248, 4-5=-1594/216
BOT CHORD 2-8=-113/1287, 6-8=-114/1282, 5-6=-101/1291
WEBS 3-8=0/262, 4-6=-1/262

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2E) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 19-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=134, 5=114.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 29, 2021

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

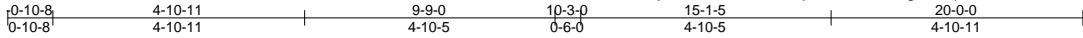
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/28 Woodside	146777183
2846773	E3	HIP GIRDER	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:46 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-rgTJdlqXZVYlR6hb1YJdFvjedJ0N0IT74VShkz1ihx



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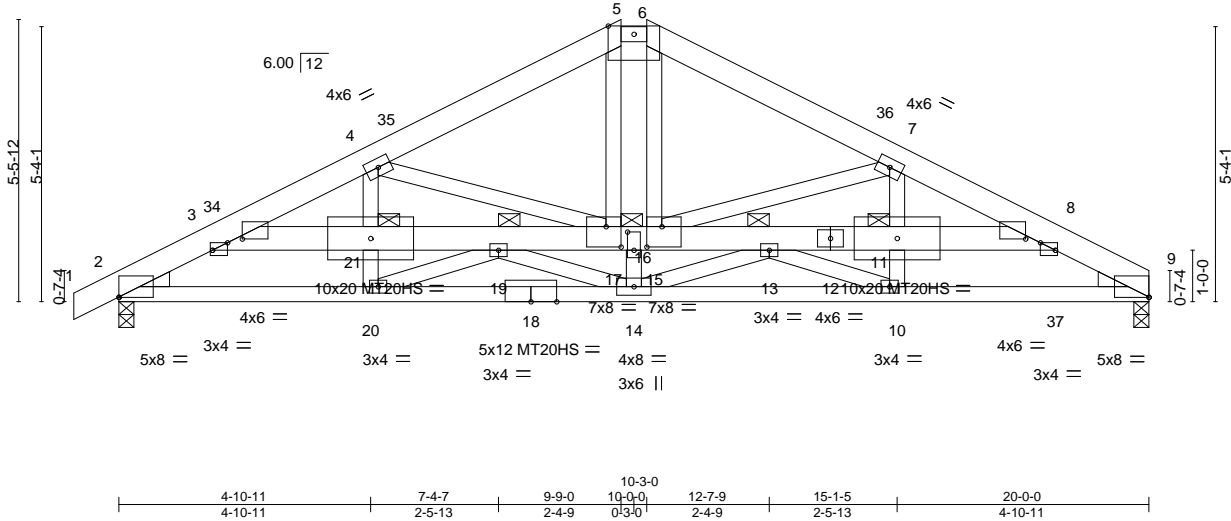


Plate Offsets (X,Y)-- [2:Edge,0-0-2], [3:0-6-15,0-2-10], [3:0-3-8,Edge], [5:0-6-0,0-1-15], [8:0-6-15,0-2-10], [8:0-3-8,Edge], [9:0-0-0,0-0-2], [15:0-3-8,0-4-12], [16:0-4-4,0-1-8], [17:0-3-8,0-4-12]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.76	Vert(LL)	-0.11	13	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.25	13	>978	180	MT20HS	148/108
BCLL 0.0	Rep Stress Incr	NO	WB 0.42	Horz(CT)	0.10	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS						Weight: 276 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SPF No.2 *Except*
5-6: 2x4 SPF No.2
BOT CHORD 2x6 SPF No.2 *Except*
2-18,9-18: 2x4 SP 2400F 2.0E
WEBS 2x4 SPF No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except
2-0-0 oc purlins (4-4-12 max.): 5-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS 1 Brace at Jt(s): 21, 17, 11, 19, 13

REACTIONS. (size) 9=0-3-8, 2=0-3-8
Max Horz 2=55(LC 9)
Max Uplift 9=183(LC 13), 2=191(LC 12)
Max Grav 9=6254(LC 1), 2=6336(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-26=-11150/1570, 3-4=-11664/1654, 4-5=-8399/1225, 5-6=-7347/1107, 6-7=-8400/1229,
7-8=-11662/1649, 8-9=-11167/1591
BOT CHORD 2-20=-1313/9416, 14-20=-1234/8770, 10-14=-1227/8778, 9-10=-1319/9437,
3-21=-135/1069, 19-21=-135/1069, 17-19=-509/3633, 16-17=-16/497, 15-16=-16/497,
13-15=-508/3630, 11-13=-130/1061, 8-11=-130/1061
WEBS 4-21=-249/2087, 4-17=-3175/502, 5-17=-491/3422, 6-15=-494/3423, 7-15=-3174/502,
7-11=-247/2086, 14-16=-209/1784, 20-21=-304/95, 19-20=-92/705, 14-19=-2156/320,
10-11=-309/100, 10-13=-107/718, 13-14=-2164/323

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 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=15ft; Cat. II; Exp C; Enclosed;
MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-9-0, Exterior(2E) 9-9-0 to 10-3-0, Exterior(2R) 10-3-0 to 14-5-15, Interior(1) 14-5-15 to 20-0-0 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.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)



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Continued on Page 2

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss E3	Truss Type HIP GIRDER	Qty 1	Ply 2	Summit/28 Woodside Job Reference (optional)	I46777183
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- NOTES-**
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

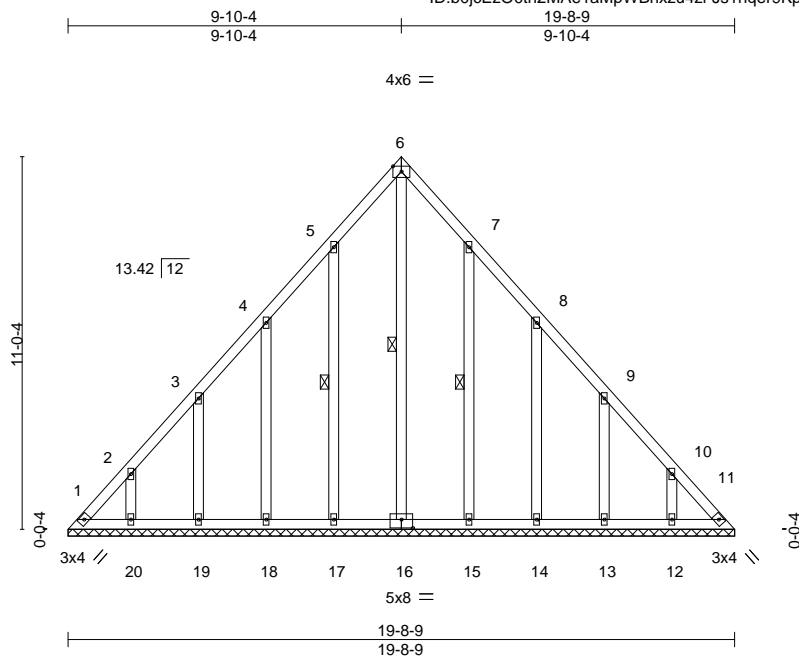
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-5=-90, 5-6=-90, 6-9=-90, 22-25=-20, 28-31=-630(F=-610)

Job 2846773	Truss LG1	Truss Type GABLE	Qty 1	Ply 1	Summit/28 Woodside 146777184
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:47 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4Zl-Js1hger9KpgcSGGobGqso6Fz5iWqIG70MjE?DBz1ihw



Scale = 1:68.1

Plate Offsets (X,Y)-- [6:Edge,0-1-14], [16:0-4-0,0-3-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2018/TPI2014	Matrix-S							Weight: 111 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 6-16, 5-17, 7-15

REACTIONS.

All bearings 19-8-9.
(lb) - Max Horz 1=258(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 11 except 1=112(LC 10), 17=122(LC 12), 18=127(LC 12), 19=124(LC 12), 20=122(LC 12), 15=120(LC 13), 14=128(LC 13), 13=124(LC 13), 12=122(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 11, 16, 18, 19, 20, 14, 13, 12 except 1=265(LC 12), 17=254(LC 19), 15=252(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=369/232, 2-3=256/190, 10-11=333/231

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 9-10-4, Exterior(2R) 9-10-4 to 12-10-4, Interior(1) 12-10-4 to 19-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) 11 except (jt=lb) 1=112, 17=122, 18=127, 19=124, 20=122, 15=120, 14=128, 13=124, 12=122.
- This truss 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 2846773	Truss LG2	Truss Type GABLE	Qty 1	Ply 1	Summit/28 Woodside 146777185
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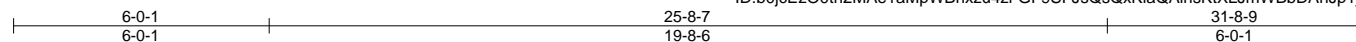
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:49 2021 Page 1

ID:b0jcEzO0th2MAe1aMpWBnxzu4zi-GF9SFJsQsQxKiaQAihsKtXLJmWBbDAhJp1j6l3z1ihu

Job Reference (optional)



Scale = 1:54.1

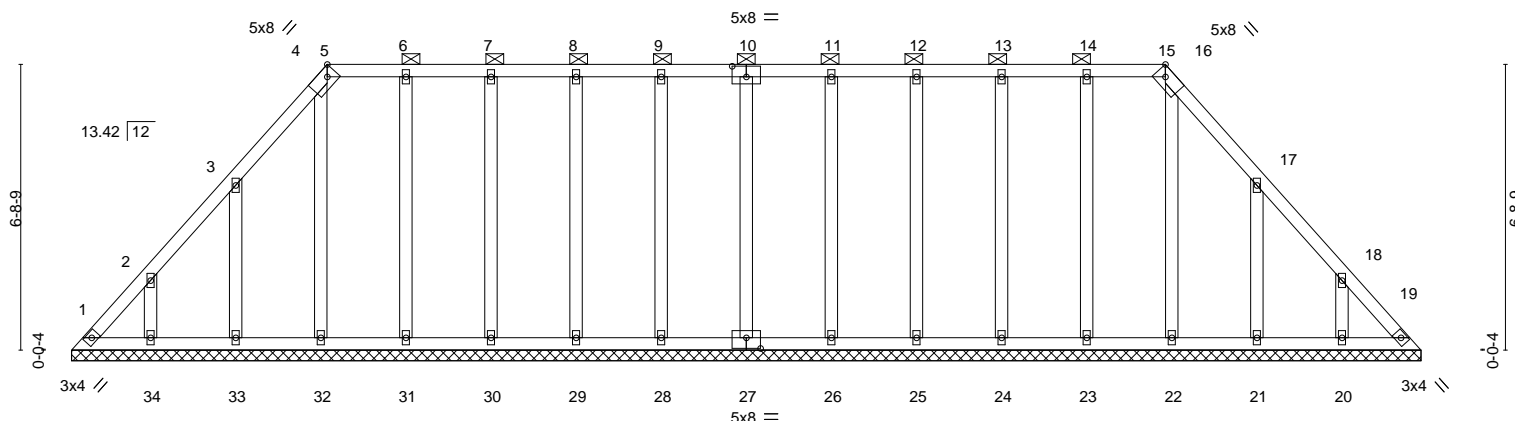


Plate Offsets (X,Y)--	[5:0-2-10,Edge], [10:0-4-0,0-3-0], [15:0-2-10,Edge], [27:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.06	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.01	19	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 167 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, except 2-0-0 oc purlins (6-0-0 max.): 5-15.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

All bearings 31-8-9.
(lb) - Max Horz 1=156(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 19, 27, 28, 29, 30, 31, 32, 26, 25, 24, 23 except 33=136(LC 12), 34=119(LC 12), 21=138(LC 13), 20=119(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 19, 27, 28, 29, 30, 31, 32, 34, 26, 25, 24, 23, 22, 20 except 33=253(LC 19), 21=255(LC 20)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 6-0-1, Exterior(2R) 6-0-1 to 10-3-0, Interior(1) 10-3-0 to 25-8-7, Exterior(2R) 25-8-7 to 29-10-4, Interior(1) 29-10-4 to 31-4-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 19, 27, 28, 29, 30, 31, 32, 26, 25, 24, 23 except (jt=lb) 33=136, 34=119, 21=138, 20=119.
- This truss 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.



June 29, 2021

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

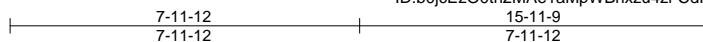
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss LG3	Truss Type GABLE	Qty 1	Ply 1	Summit/28 Woodside 146777186
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:51 2021 Page 1
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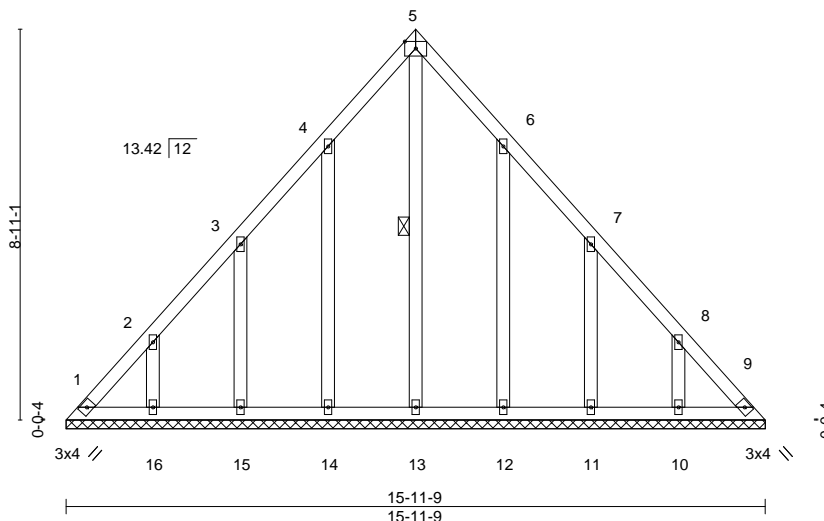


Plate Offsets (X,Y)--		[5:Edge,0-1-14]	
LOADING (psf)	SPACING-	CSI.	DEFL.
TCLL 25.0	Plate Grip DOL 1.15	TC 0.07	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.04	Vert(LL) n/a - n/a 999
BCLL 0.0	Rep Stress Incr YES	WB 0.15	Vert(CT) n/a - n/a 999
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	Horz(CT) 0.00 9 n/a n/a
			PLATES MT20
			GRIP 197/144
			Weight: 80 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 5-13

REACTIONS.

All bearings 15-11-9.
(lb) - Max Horz 1=207(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=126(LC 12), 15=126(LC 12), 16=126(LC 12), 12=124(LC 13), 11=126(LC 13), 10=125(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=255(LC 19), 12=253(LC 20)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-282/185, 8-9=-253/179

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 7-11-12, Exterior(2R) 7-11-12 to 10-11-12, Interior(1) 10-11-12 to 15-7-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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, 9 except (jt=lb) 14=126, 15=126, 16=126, 12=124, 11=126, 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.



June 29, 2021

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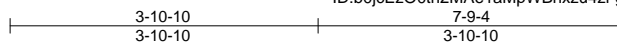
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss LG4	Truss Type GABLE	Qty 1	Ply 1	Summit/28 Woodside 146777187
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:52 2021 Page 1
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4x6 =

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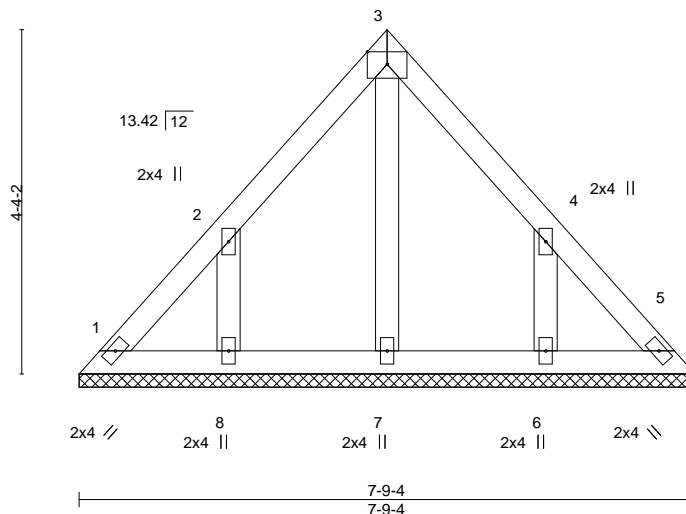


Plate Offsets (X,Y)-- [3:Edge,0-1-14]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a
BCLL 0.0	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	5	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P				
				PLATES	GRIP		
				MT20	197/144		
				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.

All bearings 7-9-4.

(lb) - Max Horz 1=-96(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-140(LC 12), 6=-140(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=266(LC 19), 6=266(LC 20)

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

WEBS 2-8=-254/156, 4-6=-254/156

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-10, Exterior(2R) 3-10-10 to 6-10-10, Interior(1) 6-10-10 to 7-5-5 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) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=140, 6=140.
- 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.



June 29,2021

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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 2846773	Truss M1	Truss Type Jack-Open	Qty 8	Ply 1	Summit/28 Woodside 146777188
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

Builders FirstSource (Valley Center),

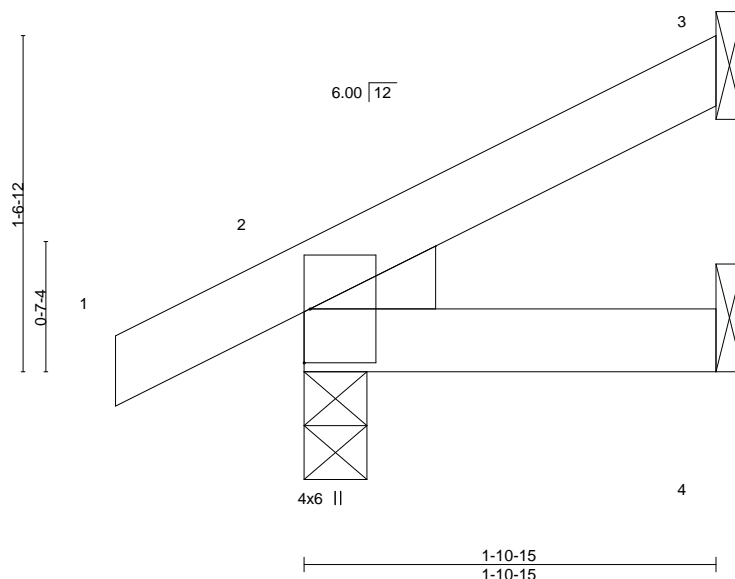
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:53 2021 Page 1

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Scale = 1:10.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-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: 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 1-10-15 oc purlins.

BOT CHORD

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=49(LC 12)

Max Uplift 3=-23(LC 12), 2=-22(LC 12), 4=-3(LC 12)

Max Grav 3=60(LC 1), 2=201(LC 1), 4=35(LC 3)

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

NOTES-

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



June 29, 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 2846773	Truss M2	Truss Type Jack-Open	Qty 8	Ply 1	Summit/28 Woodside 146777189
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Builders FirstSource (Valley Center),

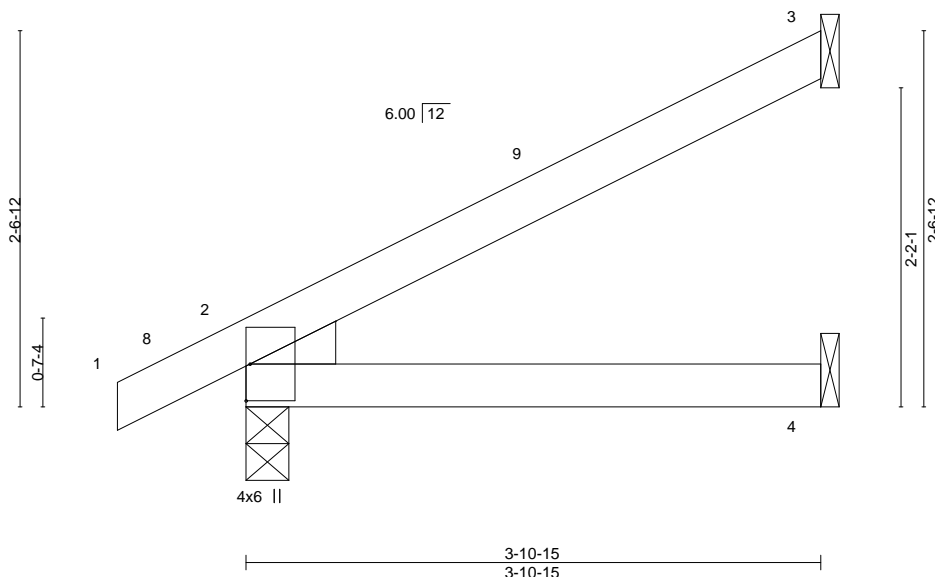
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:53 2021 Page 1

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Scale = 1:15.7



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 0.23	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.19	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						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 3-10-15 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=84(LC 12)

Max Uplift 3=-52(LC 12), 2=-27(LC 12), 4=-1(LC 12)

Max Grav 3=143(LC 1), 2=299(LC 1), 4=76(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 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 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 29, 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



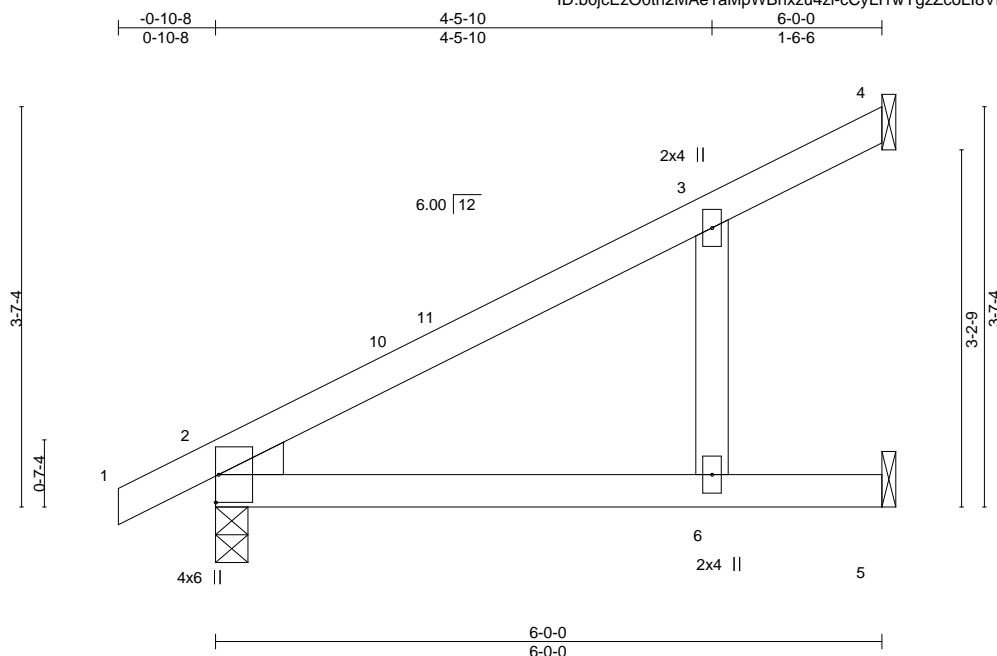
16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss M3	Truss Type Jack-Open	Qty 16	Ply 1	Summit/28 Woodside Job Reference (optional)	146777190
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:54 2021 Page 1
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Scale = 1:20.7

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 0.50	Vert(LL)	0.10	6-9	>731	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.51	Vert(CT)	-0.19	6-9	>375	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.03	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS							
									Weight: 19 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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical
Max Horz 2=123(LC 12)
Max Uplift 4=42(LC 12), 2=-34(LC 12), 5=-38(LC 12)
Max Grav 4=163(LC 1), 2=411(LC 1), 5=158(LC 1)

FORCES.

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 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.



June 29, 2021

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16023 Swingley Ridge Rd
Chesterfield, MO 63017

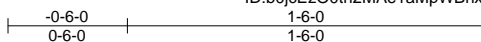
Job 2846773	Truss M5	Truss Type MONOPITCH SUPPORTED	Qty 2	Ply 1	Summit/28 Woodside Job Reference (optional)
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Builders FirstSource (Valley Center),

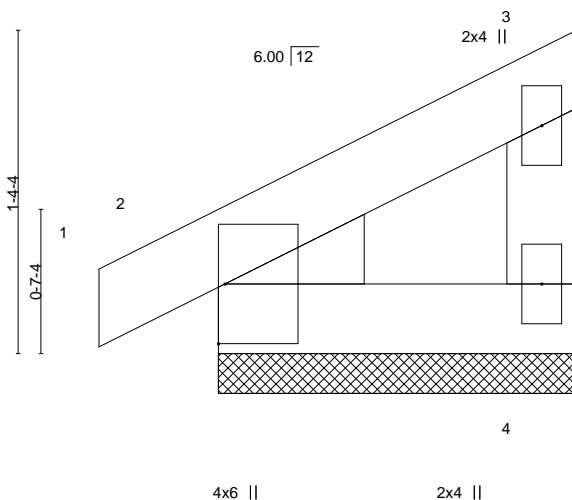
Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:55 2021 Page 1

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Scale = 1:9.6



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	1	n/r	120		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 6 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 1-6-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=1-6-0, 2=1-6-0
Max Horz 2=36(LC 9)
Max Uplift 4=-16(LC 12), 2=-16(LC 12)
Max Grav 4=66(LC 1), 2=128(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) Gable requires continuous bottom chord bearing.
- 4) Gable studs spaced at 1-4-0 oc.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



June 29, 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

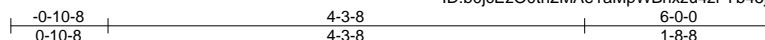
Job 2846773	Truss M6	Truss Type Jack-Open	Qty 9	Ply 1	Summit/28 Woodside 146777192
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:56 2021 Page 1

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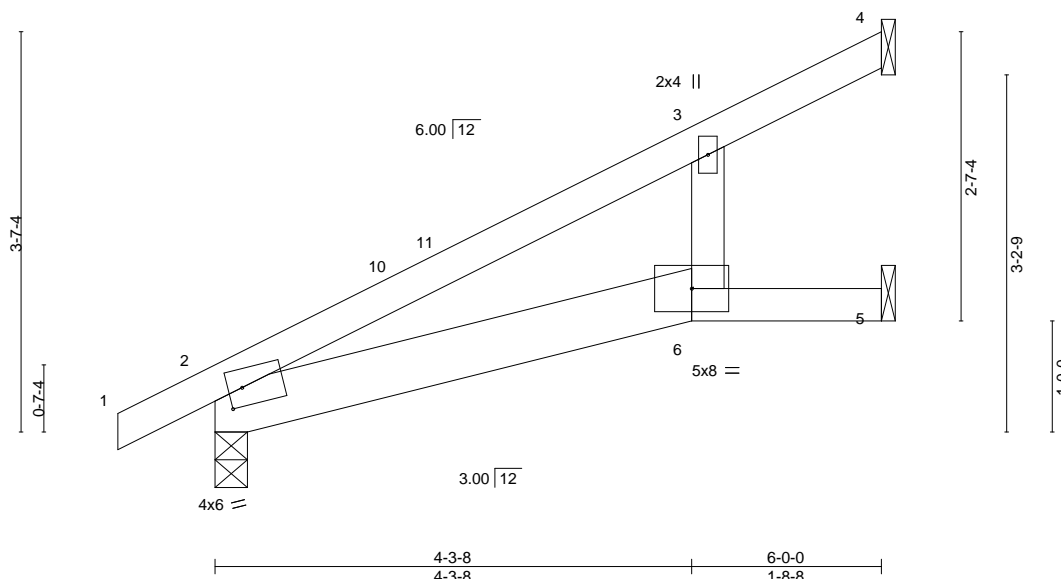


Plate Offsets (X,Y)--		[2:0-1-8,0-2-0]									
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC 0.70	Vert(LL)	0.10	6	>711	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.19	6	>375	180		
BCLL	0.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.04	5	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 *Except*
2-6: 2x6 SPF No.2
WEBS 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=123(LC 12)
Max Uplift 4=-86(LC 12), 2=-34(LC 12)
Max Grav 4=304(LC 1), 2=411(LC 1), 5=33(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) 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 100 lb uplift at joint(s) 4, 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.



June 29,2021

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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 2846773	Truss M7	Truss Type Jack-Open	Qty 2	Ply 1	Summit/28 Woodside 146777193
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:56 2021 Page 1

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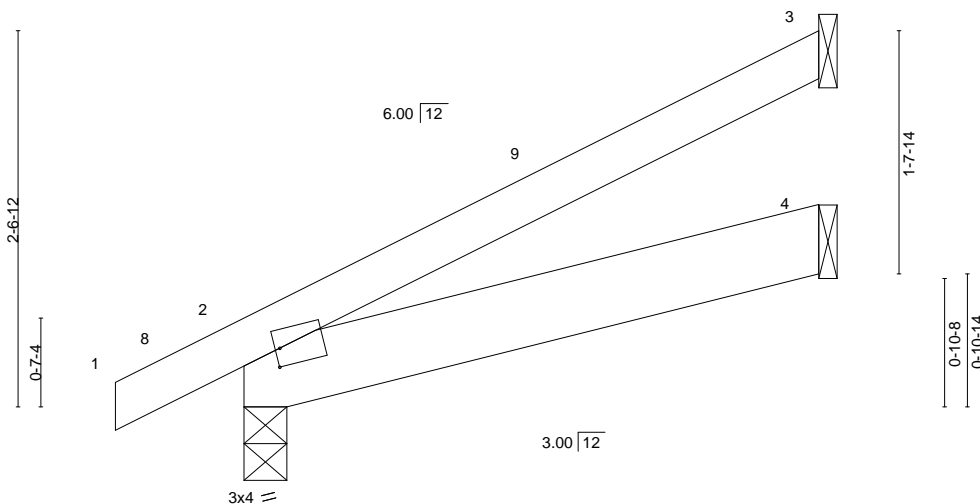


Plate Offsets (X,Y)-- [2:0-0-6,0-1-8]										
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES	GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	0.01 4-7 >999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01 4-7 >999	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00 2 n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=84(LC 12)
Max Uplift 3=47(LC 12), 2=27(LC 12), 4=5(LC 12)
Max Grav 3=128(LC 1), 2=299(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=15ft; 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 3-10-3 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) 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 100 lb uplift at joint(s) 3, 2, 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.



June 29, 2021

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

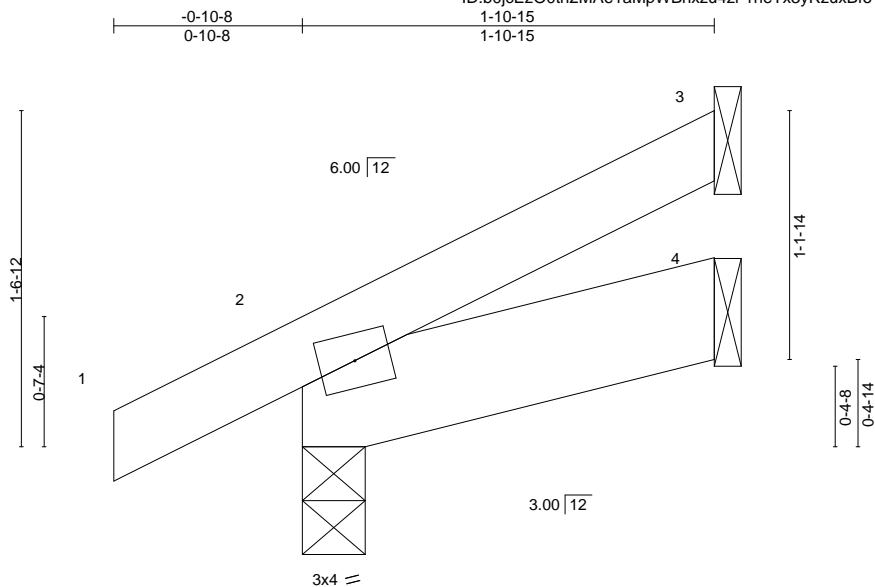
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss M8	Truss Type Jack-Open	Qty 2	Ply 1	Summit/28 Woodside 146777194
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:57 2021 Page 1
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Scale = 1:10.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	-0.00	7	>999	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						Weight: 7 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical
Max Horz 2=49(LC 12)
Max Uplift 3=21(LC 12), 2=22(LC 12), 4=4(LC 12)
Max Grav 3=55(LC 1), 2=201(LC 1), 4=41(LC 3)

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

NOTES-

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



June 29, 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 2846773	Truss V1	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside Job Reference (optional)	146777195
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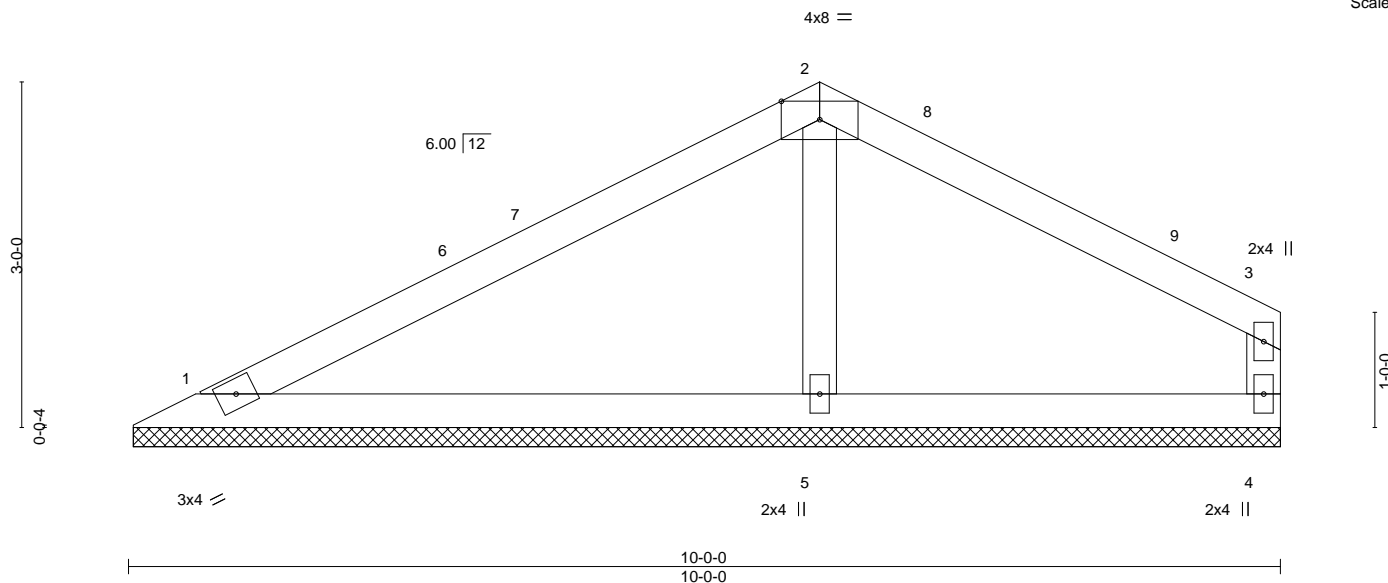
Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:58 2021 Page 1
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Scale = 1:20.0



LOADING (psf)	SPACING-	2'-0"	CSI.	DEFL.	in	(loc)	L/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.52	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.22	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: 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" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

REACTIONS.

(size) 1=9-11-8, 4=9-11-8, 5=9-11-8
Max Horz 1=51(LC 9)
Max Uplift 1=-37(LC 12), 4=-59(LC 13), 5=-45(LC 12)
Max Grav 1=289(LC 1), 4=230(LC 26), 5=523(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-5=-383/164

NOTES-

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



June 29, 2021

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

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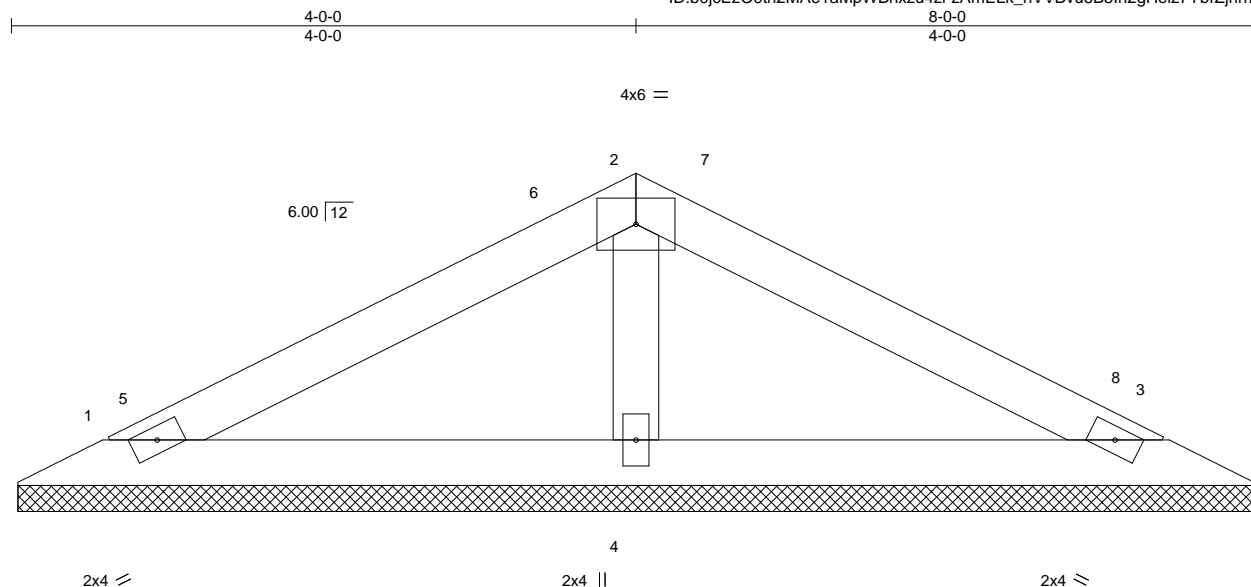


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss V2	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside Job Reference (optional)	146777196
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:43:59 2021 Page 1
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Scale = 1:14.8

0-0-8				8-0-0						
0-0-8				7-11-8						
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	0.10	Vert(CT)	n/a - n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00 3	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 19 lb	FT = 20%

LUMBER-

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=7-11-0, 3=7-11-0, 4=7-11-0
Max Horz 1=27(LC 12)
Max Uplift 1=32(LC 12), 3=37(LC 13), 4=11(LC 12)
Max Grav 1=191(LC 1), 3=191(LC 1), 4=359(LC 1)

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

WEBS 2-4=-274/135

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-0-0, Exterior(2R) 4-0-0 to 7-0-0, Interior(1) 7-0-0 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
- 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.



June 29, 2021

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

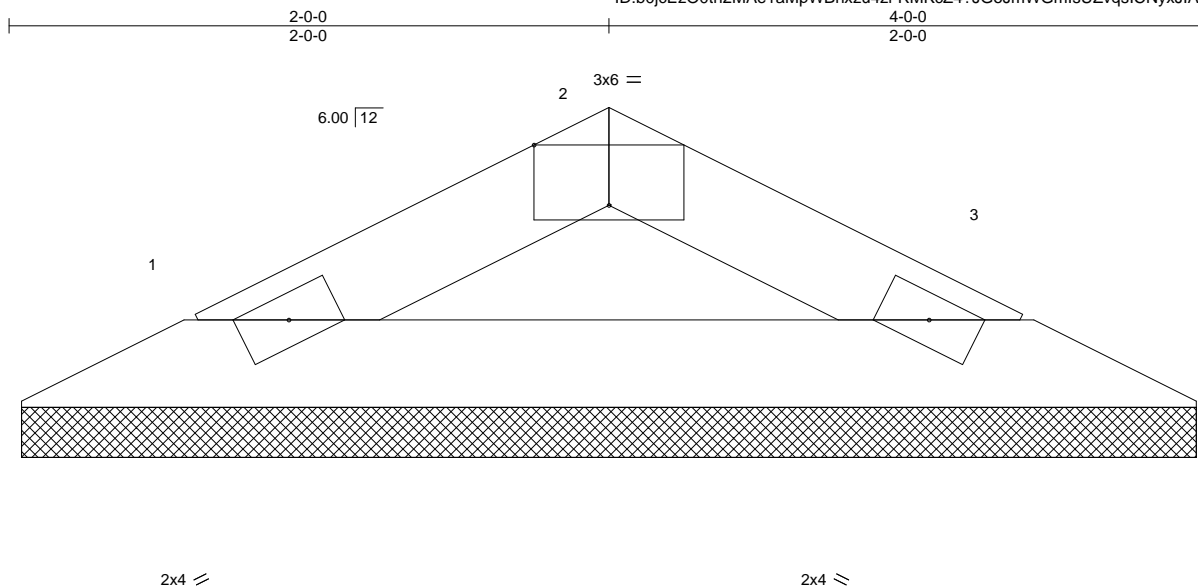
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss V3	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside 146777197
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:44:00 2021 Page 1
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0-0-8		4-0-0							
0-0-8		3-11-8							
Plate Offsets (X,Y)-- [2:0-3-0,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	0.04	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	0.00	Horz(CT)	0.00 3 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P					
								Weight: 8 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-11-0, 3=3-11-0
Max Horz 1=11(LC 16)
Max Uplift 1=-15(LC 12), 3=-15(LC 13)
Max Grav 1=151(LC 1), 3=151(LC 1)

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

NOTES-

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



June 29, 2021

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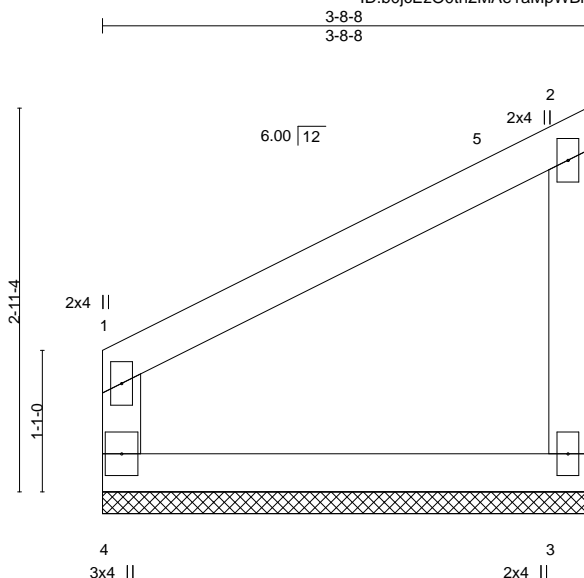
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss V4	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside 146777198
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:44:00 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-RMKcZ4?JGoJmWGmlsUZvqslA0yxllAVxLFuBBwz1ihj



Scale = 1:17.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-R					Weight: 12 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 3-8-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 4=3-8-8, 3=3-8-8
Max Horz 4=93(LC 9)
Max Uplift 4=-15(LC 12), 3=-41(LC 12)
Max Grav 4=188(LC 1), 3=188(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 3-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Gable requires continuous bottom chord bearing.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 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.



June 29,2021

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

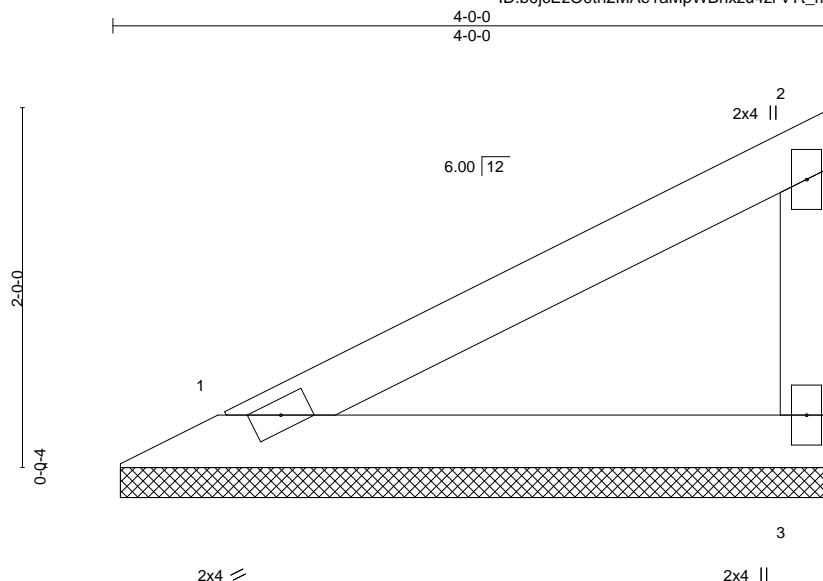
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss V5	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside 146777199
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:44:01 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxzu4zl-vYt_mQ?y16Rd8QLUPC48M3rK_MGG1dl4avdljNz1ihi



Scale = 1:12.8

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P					Weight: 10 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=3-11-8, 3=3-11-8
Max Horz 1=60(LC 11)
Max Uplift 1=-19(LC 12), 3=-34(LC 12)
Max Grav 1=177(LC 1), 3=177(LC 1)

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

NOTES-

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



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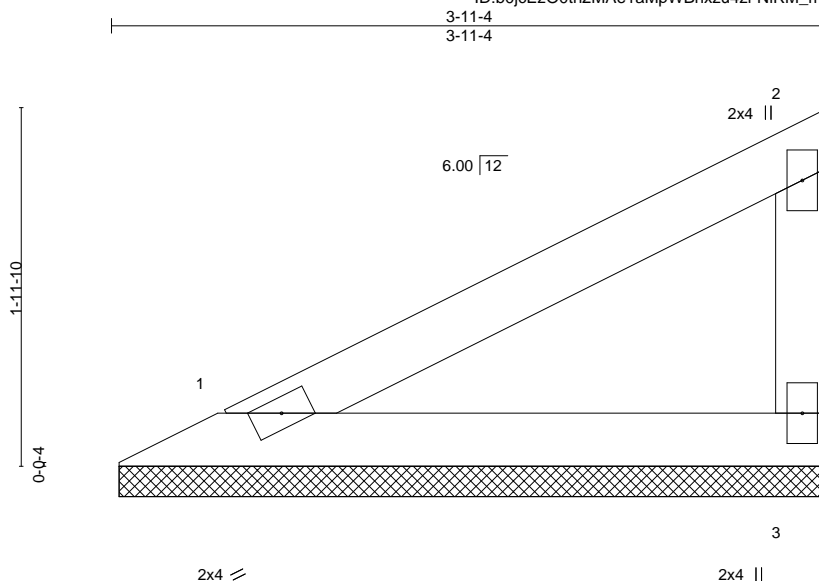
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16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss V6	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside 146777200
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:44:02 2021 Page 1
ID:b0jcEzO0th2MAe1aMpWBnxu4zi-NIRM_m0aoQZUmZvgzbNvHNvulcZm4?EpZNIFpz1ihh



Scale = 1:12.6

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
								Weight: 10 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-11-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=3-10-12, 3=3-10-12
Max Horz 1=59(LC 9)
Max Uplift 1=18(LC 12), 3=33(LC 12)
Max Grav 1=174(LC 1), 3=174(LC 1)

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

NOTES-

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



June 29, 2021

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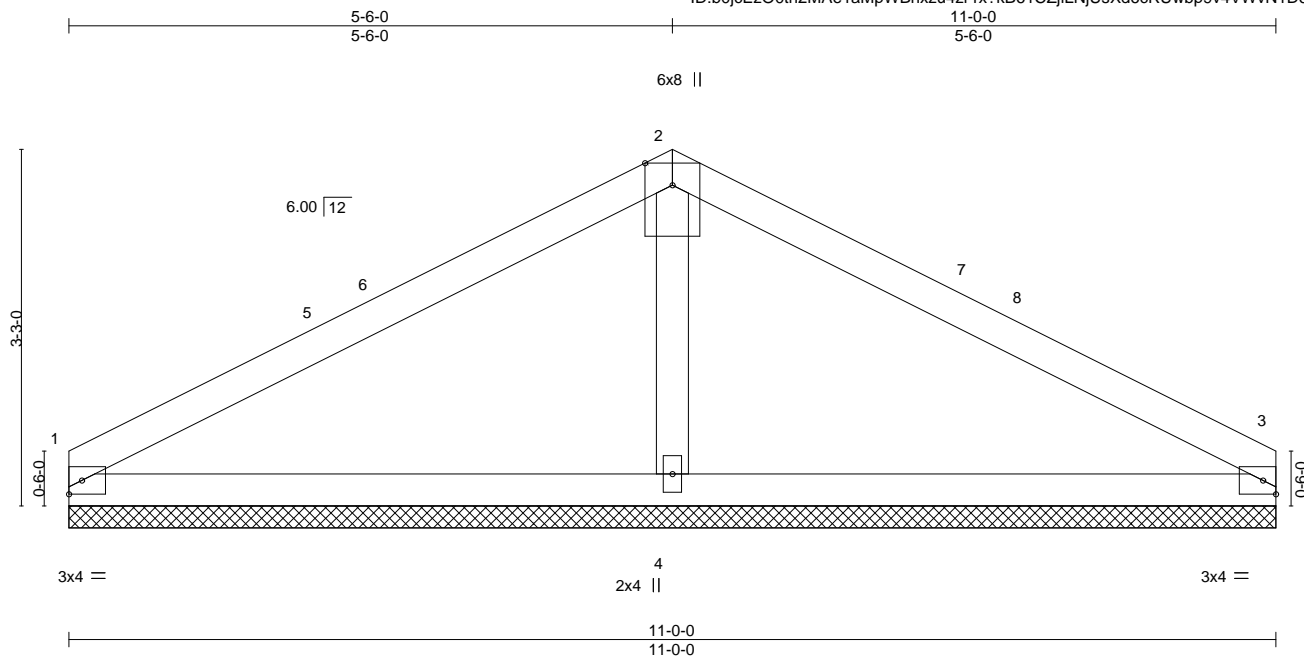
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Job 2846773	Truss V7	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside	146777201
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:44:03 2021 Page 1
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.54	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 30 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" oc purlins.
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

REACTIONS.

(size) 1=11'-0", 3=11'-0", 4=11'-0"
Max Horz 1=47(LC 16)
Max Uplift 1=43(LC 12), 3=52(LC 13), 4=37(LC 12)
Max Grav 1=284(LC 25), 3=284(LC 26), 4=645(LC 1)

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

WEBS 2-4=-469/178

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0'-0" to 3'-0", Interior(1) 3'-0" to 5'-6", Exterior(2R) 5'-6" to 8'-6", Interior(1) 8'-6" to 11'-0" zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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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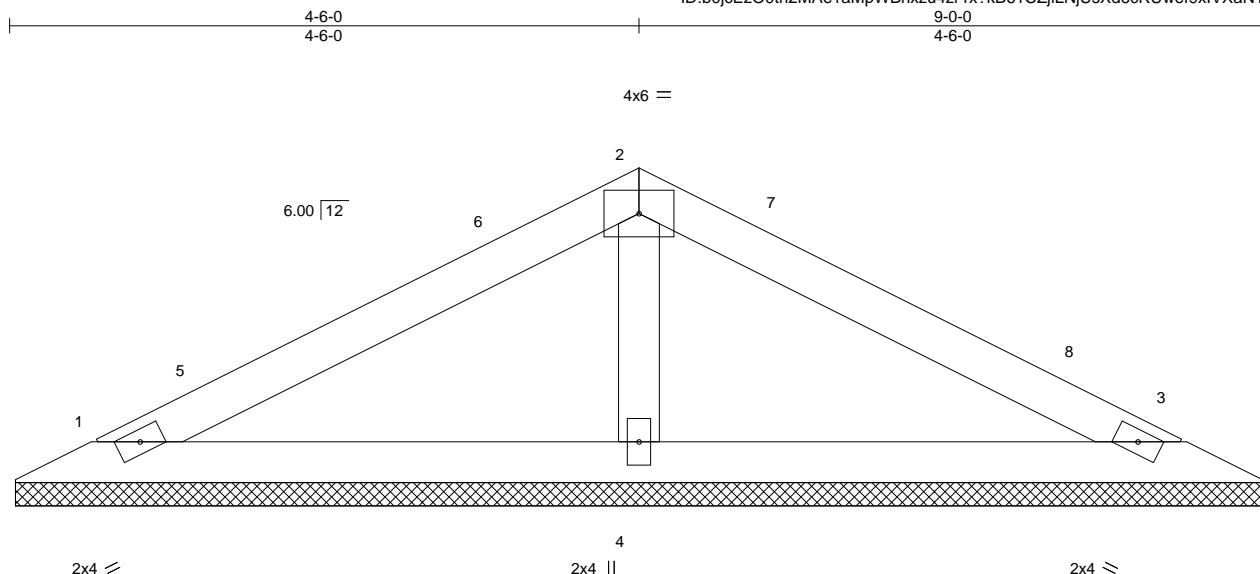


16023 Swingley Ridge Rd
Chesterfield, MO 63017

Job 2846773	Truss V8	Truss Type Valley	Qty 1	Ply 1	Summit/28 Woodside Job Reference (optional)	146777202
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.430 s Jun 2 2021 MiTek Industries, Inc. Mon Jun 28 15:44:03 2021 Page 1
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0-0-8				9-0-0								
0-0-8				8-11-8								
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	0.36	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	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-P							Weight: 22 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS.

(size) 1=8-11-0, 3=8-11-0, 4=8-11-0
Max Horz 1=31(LC 16)
Max Uplift 1=-37(LC 12), 3=-43(LC 13), 4=-13(LC 12)
Max Grav 1=220(LC 1), 3=220(LC 1), 4=412(LC 1)

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

WEBS 2-4=-315/143

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 4-6-0, Exterior(2R) 4-6-0 to 7-6-0, Interior(1) 7-6-0 to 8-4-7 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
- 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.



June 29, 2021

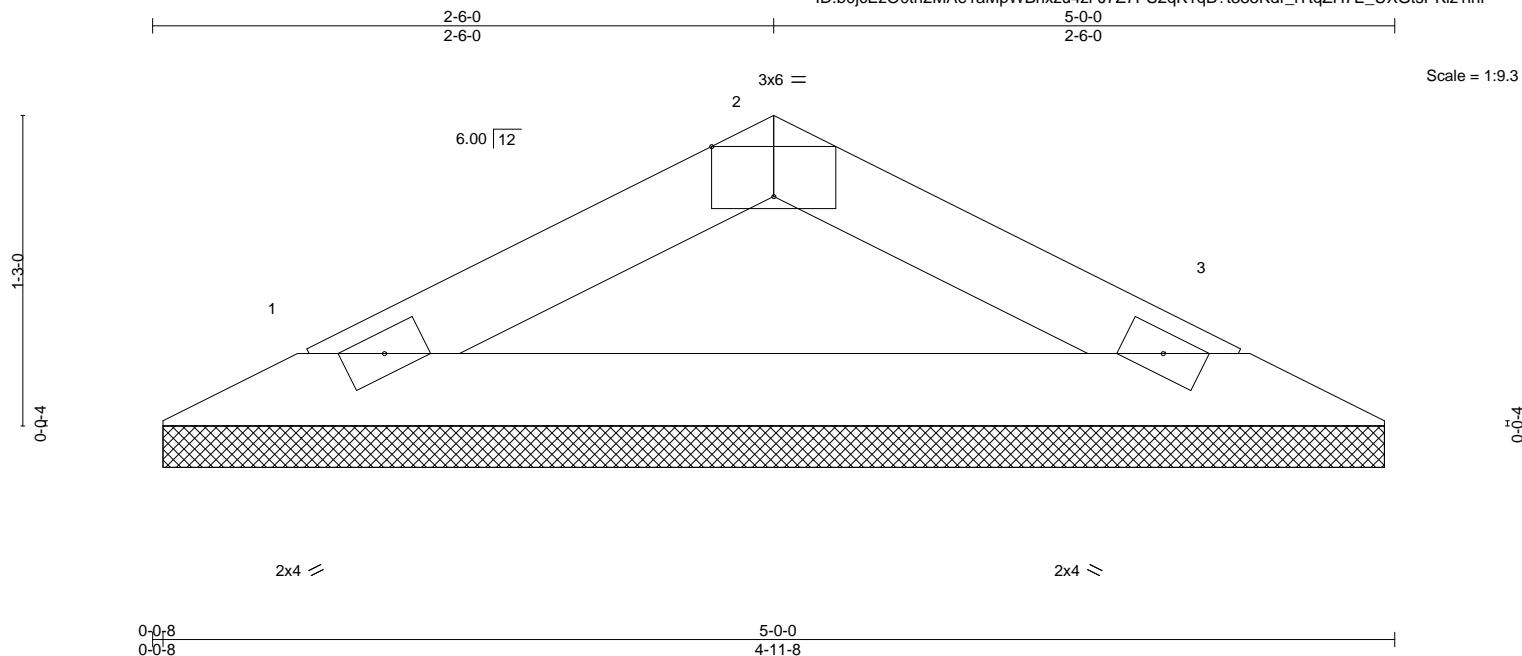
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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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 0.07	Vert(LL) n/a -	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.15	Vert(CT) n/a -	n/a	999		
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P				Weight: 10 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 5-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=4-11-0, 3=4-11-0
 Max Horz 1=15(LC 16)
 Max Uplift 1=-21(LC 12), 3=-21(LC 13)
 Max Grav 1=206(LC 1), 3=206(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; TCDF=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 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.



June 29, 2021

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



16023 Swingley Ridge Rd
Chesterfield, MO 63017

Symbols

PLATE LOCATION AND ORIENTATION



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

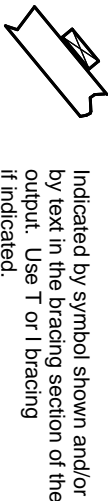
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

PLATE SIZE

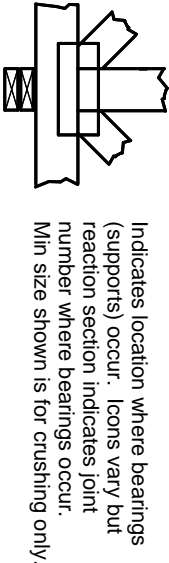
4 X 4

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

LATERAL BRACING LOCATION



BEARING



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

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

Numbering System



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

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

PRODUCT CODE APPROVALS

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

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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