



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

Re: 2552987  
Summit/19 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: I43853153 thru I43853246

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

Missouri COA: Engineering 001193



December 4, 2020

Sevier, Scott ,Engineer

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

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853153
2552987	A01	Hip Girder	1	1		
Job Reference (optional)						

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:07 2020 Page 1  
ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-uQvisFC9RF0RDLEcu63PF9YCP9LaeJtMuQsbhSyCgM6  
0-10-8 2-11-12 5-8-0 10-6-4 15-6-4 20-8-0 23-0-0 24-4-0 28-8-0 29-6-8  
0-10-8 2-11-12 2-8-4 4-10-4 5-0-0 5-1-12 2-4-0 1-4-0 4-4-0 0-10-8  
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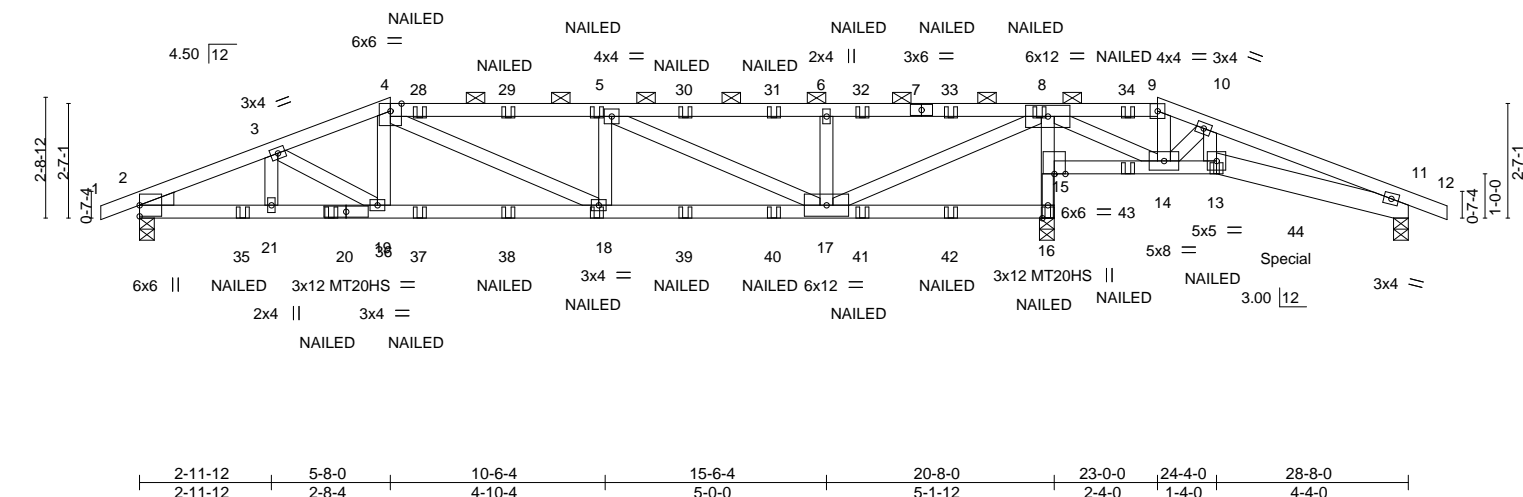


Plate Offsets (X,Y)-- [2:0-0-0,0-6-3]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.14 18 >999	240	MT20 197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.31 17-18 >784	180	MT20HS 148/108
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.07 16 n/a	n/a	
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 110 lb FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 2-9-13 oc purlins, except
BOT CHORD 2x4 SPF 1650F 1.5E *Except* 13-15: 2x4 SPF No.2, 11-13: 2x6 SPF No.2	2-0-0 oc purlins (2-4-2 max.): 4-9.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 3-1-7 oc bracing.
WEDGE Left: 2x4 SPF No.2	

REACTIONS.	(size) 2=0-4-0, 16=0-4-0 (req. 0-4-2), 11=0-4-0
	Max Horz 2=-37(LC 30)
	Max Uplift 2=-255(LC 4), 16=-376(LC 5), 11=-113(LC 5)
	Max Grav 2=1722(LC 21), 16=2635(LC 1), 11=601(LC 22)
FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3137/454, 3-4=-3090/446, 4-5=-3544/536, 5-6=-2369/362, 6-8=-2369/362, 10-11=-1028/202
BOT CHORD	2-21=-415/2856, 19-21=-415/2856, 18-19=-387/2893, 17-18=-478/3540, 16-17=-522/98, 15-16=-2539/420, 8-15=-2425/414, 14-15=-936/174, 13-14=-126/825, 11-13=-146/962
WEBS	4-19=0/292, 4-18=-133/800, 5-17=-1299/214, 6-17=-556/194, 8-17=-439/3151, 8-14=-172/1231, 10-14=-869/168, 10-13=-69/575

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) WARNING: Required bearing size at joint(s) 16 greater than input bearing size.
  - 8) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=255, 16=376, 11=113.
  - 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) 211 lb down and 59 lb up at joint(s) on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



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Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853153
2552987	A01	Hip Girder	1	1	Job Reference (optional)	

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

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-90, 4-9=-90, 9-12=-90, 16-22=-20, 13-15=-20, 13-25=-20  
Concentrated Loads (lb)  
Vert: 16=-38(F) 8=-60(F) 13=-171(F) 18=-38(F) 5=-60(F) 28=-60(F) 29=-60(F) 30=-60(F) 31=-60(F) 32=-60(F) 33=-60(F) 34=-27(F) 35=-189(F) 36=-183(F) 37=-38(F) 38=-38(F) 39=-38(F) 40=-38(F) 41=-38(F) 42=-38(F) 43=-75(F) 44=-211(F)

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853154
2552987	A02	Hip	1	1		

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

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ID:WH4RYhEsTNeUP2dXvOfi1syQY8e-qo1SHxEPzsG9SeO??X6tKaecSz506l1fLkLiLyCgM4

-0-10-8	4-3-12	8-4-0	14-4-0	20-4-0	20-8-0	24-4-0	28-8-0	29-6-8
0-10-8	4-3-12	4-0-4	6-0-0	6-0-0	0-4-0	3-8-0	4-4-0	0-10-8

Scale = 1:51.2

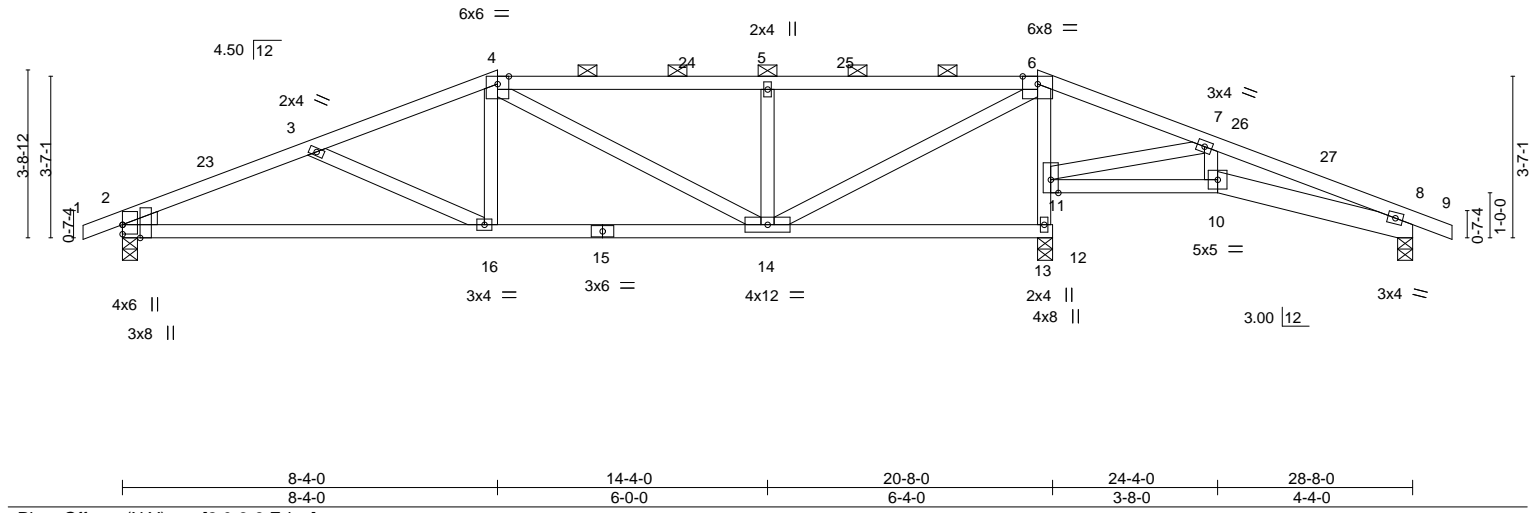


Plate Offsets (X,Y)-- [2:0-3-8,Edge]		LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	-0.08	14-16	>999	240	MT20	197/144	
TCDL	20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.17	16-19	>999	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.48	Horz(CT)	0.04	13	n/a	n/a			
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 108 lb	FT = 20%	

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 8-10: 2x6 SPF No.2  
 WEBS 2x4 SPF No.2  
 WEDGE  
 Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except  
 2-0-0 oc purlins (4-3-8 max.): 4-6.  
 BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 2=0-4-0, 13=0-4-0, 8=0-4-0  
 Max Horz 2=53(LC 16)  
 Max Uplift 2=145(LC 8), 13=134(LC 9), 8=84(LC 9)  
 Max Grav 2=1173(LC 25), 13=1716(LC 1), 8=441(LC 26)

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

TOP CHORD 2-3=-2106/264, 3-4=-1780/218, 4-5=-1437/225, 5-6=-1437/225, 6-7=0/397,  
 7-8=-700/152  
 BOT CHORD 2-16=-235/1903, 14-16=-145/1628, 10-11=-94/570, 8-10=-96/625  
 WEBS 11-13=-1661/166, 6-11=-1420/174, 3-16=-293/104, 4-16=0/327, 5-14=-618/167,  
 7-11=-871/129, 7-10=0/263, 6-14=-181/1773

#### 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=6.0psf; 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 8-4-0, Exterior(2R) 8-4-0 to 12-6-15, Interior(1) 12-6-15 to 20-4-0, Exterior(2R) 20-4-0 to 24-6-15, Interior(1) 24-6-15 to 29-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=145, 13=134.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

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



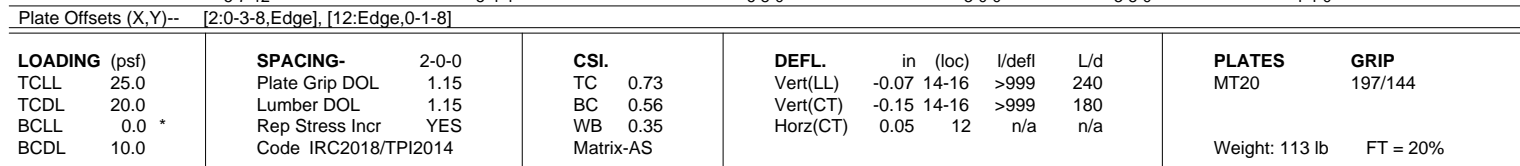
16023 Swingley Ridge Rd  
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ID:wH4RYhEsTNeUP2dXvOf1syQY8e-l?bqUHE2jAO04ozBZEd6snAlvNRKrmFoaO4GHnyCgM3

-0-10-8	5-7-12	11-0-0	17-8-0	20-8-0	24-4-0	28-8-0	29-6-8
0-10-8	5-7-12	5-4-4	6-8-0	3-0-0	3-8-0	4-4-0	0-10-8

Scale = 1:51.2



**REACTIONS.** (size) 2=0-4-0, 12=0-4-0, 8=0-4-0  
 Max Horz 2=69(LC 16)  
 Max Uplift 2=-141(LC 8), 12=-107(LC 9), 8=-89(LC 9)  
 Max Grav 2=1171(LC 25), 12=1711(LC 1), 8=444(LC 26)

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

TOP CHORD	2-3=-2070/230, 3-4=-1463/200, 4-5=-523/150, 5-6=-569/139, 6-7=0/364, 7-8=-702/170
BOT CHORD	2-16=-219/1861, 14-16=-219/1861, 13-14=-104/1292, 11-12=-1734/111, 6-11=-1460/99, 10-11=-111/581, 8-10=-113/627
WEBS	3-14=-614/131, 4-14=0/449, 4-13=-913/110, 5-13=-324/83, 6-13=-66/1186, 7-11=-843/142

**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=6.0psf; 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 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 to 17-8-0, Exterior(2R) 17-8-0 to 21-10-15, Interior(1) 21-10-15 to 29-6-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (jt=lb) 2=141, 12=107.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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3-0-0	4-4-0	9-0-0	13-8-0	15-0-0	20-2-0	24-4-0	25-8-0	28-8-0
3-0-0	1-4-0	4-8-0	4-8-0	1-4-0	5-2-0	4-2-0	1-4-0	3-0-0

Structural drawing of a roof truss system. The drawing shows a cross-section of the truss with various timber members labeled with their dimensions and quantities. The roof pitch is indicated as 4.50/12. The overall height of the truss is 5.8-12, and the width of the base is 5.7-1. The drawing includes a scale bar for 1-0-0. The members are labeled as follows:

- Top chord: 6x6 = 3, 4x4 = 4, 6x6 = 2, 7x8 = 5, 4x4 = 6, 8x12 = 7, 31, 8x12 = 10, 3x4 = 11, 2x4 = 12, 2x4 = 13, 2x4 = 14, 2x4 = 15, 2x4 = 16, 2x4 = 17, 2x4 = 18, 2x4 = 19, 2x4 = 20, 2x4 = 21, 2x4 = 22, 2x4 = 23, 2x4 = 24, 2x4 = 25, 2x4 = 26, 2x4 = 27, 2x4 = 28, 2x4 = 29, 2x4 = 30, 2x4 = 31, 2x4 = 32, 2x4 = 33, 2x4 = 34, 2x4 = 35, 2x4 = 36, 2x4 = 37, 2x4 = 38, 2x4 = 39, 2x4 = 40, 2x4 = 41, 2x4 = 42, 2x4 = 43, 2x4 = 44, 2x4 = 45, 2x4 = 46, 2x4 = 47, 2x4 = 48, 2x4 = 49, 2x4 = 50, 2x4 = 51, 2x4 = 52, 2x4 = 53, 2x4 = 54, 2x4 = 55, 2x4 = 56, 2x4 = 57, 2x4 = 58, 2x4 = 59, 2x4 = 60, 2x4 = 61, 2x4 = 62, 2x4 = 63, 2x4 = 64, 2x4 = 65, 2x4 = 66, 2x4 = 67, 2x4 = 68, 2x4 = 69, 2x4 = 70, 2x4 = 71, 2x4 = 72, 2x4 = 73, 2x4 = 74, 2x4 = 75, 2x4 = 76, 2x4 = 77, 2x4 = 78, 2x4 = 79, 2x4 = 80, 2x4 = 81, 2x4 = 82, 2x4 = 83, 2x4 = 84, 2x4 = 85, 2x4 = 86, 2x4 = 87, 2x4 = 88, 2x4 = 89, 2x4 = 90, 2x4 = 91, 2x4 = 92, 2x4 = 93, 2x4 = 94, 2x4 = 95, 2x4 = 96, 2x4 = 97, 2x4 = 98, 2x4 = 99, 2x4 = 100, 2x4 = 101, 2x4 = 102, 2x4 = 103, 2x4 = 104, 2x4 = 105, 2x4 = 106, 2x4 = 107, 2x4 = 108, 2x4 = 109, 2x4 = 110, 2x4 = 111, 2x4 = 112, 2x4 = 113, 2x4 = 114, 2x4 = 115, 2x4 = 116, 2x4 = 117, 2x4 = 118, 2x4 = 119, 2x4 = 120, 2x4 = 121, 2x4 = 122, 2x4 = 123, 2x4 = 124, 2x4 = 125, 2x4 = 126, 2x4 = 127, 2x4 = 128, 2x4 = 129, 2x4 = 130, 2x4 = 131, 2x4 = 132, 2x4 = 133, 2x4 = 134, 2x4 = 135, 2x4 = 136, 2x4 = 137, 2x4 = 138, 2x4 = 139, 2x4 = 140, 2x4 = 141, 2x4 = 142, 2x4 = 143, 2x4 = 144, 2x4 = 145, 2x4 = 146, 2x4 = 147, 2x4 = 148, 2x4 = 149, 2x4 = 150, 2x4 = 151, 2x4 = 152, 2x4 = 153, 2x4 = 154, 2x4 = 155, 2x4 = 156, 2x4 = 157, 2x4 = 158, 2x4 = 159, 2x4 = 160, 2x4 = 161, 2x4 = 162, 2x4 = 163, 2x4 = 164, 2x4 = 165, 2x4 = 166, 2x4 = 167, 2x4 = 168, 2x4 = 169, 2x4 = 170, 2x4 = 171, 2x4 = 172, 2x4 = 173, 2x4 = 174, 2x4 = 175, 2x4 = 176, 2x4 = 177, 2x4 = 178, 2x4 = 179, 2x4 = 180, 2x4 = 181, 2x4 = 182, 2x4 = 183, 2x4 = 184, 2x4 = 185, 2x4 = 186, 2x4 = 187, 2x4 = 188, 2x4 = 189, 2x4 = 190, 2x4 = 191, 2x4 = 192, 2x4 = 193, 2x4 = 194, 2x4 = 195, 2x4 = 196, 2x4 = 197, 2x4 = 198, 2x4 = 199, 2x4 = 200, 2x4 = 201, 2x4 = 202, 2x4 = 203, 2x4 = 204, 2x4 = 205, 2x4 = 206, 2x4 = 207, 2x4 = 208, 2x4 = 209, 2x4 = 210, 2x4 = 211, 2x4 = 212, 2x4 = 213, 2x4 = 214, 2x4 = 215, 2x4 = 216, 2x4 = 217, 2x4 = 218, 2x4 = 219, 2x4 = 220, 2x4 = 221, 2x4 = 222, 2x4 = 223, 2x4 = 224, 2x4 = 225, 2x4 = 226, 2x4 = 227, 2x4 = 228, 2x4 = 229, 2x4 = 230, 2x4 = 231, 2x4 = 232, 2x4 = 233, 2x4 = 234, 2x4 = 235, 2x4 = 236, 2x4 = 237, 2x4 = 238, 2x4 = 239, 2x4 = 240, 2x4 = 241, 2x4 = 242, 2x4 = 243, 2x4 = 244, 2x4 = 245, 2x4 = 246, 2x4 = 247, 2x4 = 248, 2x4 = 249, 2x4 = 250, 2x4 = 251, 2x4 = 252, 2x4 = 253, 2x4 = 254, 2x4 = 255, 2x4 = 256, 2x4 = 257, 2x4 = 258, 2x4 = 259, 2x4 = 260, 2x4 = 261, 2x4 = 262, 2x4 = 263, 2x4 = 264, 2x4 = 265, 2x4 = 266, 2x4 = 267, 2x4 = 268, 2x4 = 269, 2x4 = 270, 2x4 = 271, 2x4 = 272, 2x4 = 273, 2x4 = 274, 2x4 = 275, 2x4 = 276, 2x4 = 277, 2x4 = 278, 2x4 = 279, 2x4 = 280, 2x4 = 281, 2x4 = 282, 2x4 = 283, 2x4 = 284, 2x4 = 285, 2x4 = 286, 2x4 = 287, 2x4 = 288, 2x4 = 289, 2x4 = 290, 2x4 = 291, 2x4 = 292, 2x4 = 293, 2x4 = 294, 2x4 = 295, 2x4 = 296, 2x4 = 297, 2x4 = 298, 2x4 = 299, 2x4 = 300, 2x4 = 301, 2x4 = 302, 2x4 = 303, 2x4 = 304, 2x4 = 305, 2x4 = 306, 2x4 = 307, 2x4 = 308, 2x4 = 309, 2x4 = 310, 2x4 = 311, 2x4 = 312, 2x4 = 313, 2x4 = 314, 2x4 = 315, 2x4 = 316, 2x4 = 317, 2x4 = 318, 2x4 = 319, 2x4 = 320, 2x4 = 321, 2x4 = 322, 2x4 = 323, 2x4 = 324, 2x4 = 325, 2x4 = 326, 2x4 = 327, 2x4 = 328, 2x4 = 329, 2x4 = 330, 2x4 = 331, 2x4 = 332, 2x4 = 333, 2x4 = 334, 2x4 = 335, 2x4 = 336, 2x4 = 337, 2x4 = 338, 2x4 = 339, 2x4 = 340, 2x4 = 341, 2x4 = 342, 2x4 = 343, 2x4 = 344, 2x4 = 345, 2x4 = 346, 2x4 = 347, 2x4 = 348, 2x4 = 349, 2x4 = 350, 2x4 = 351, 2x4 = 352, 2x4 = 353, 2x4 = 354, 2x4 = 355, 2x4 = 356, 2x4 = 357, 2x4 = 358, 2x4 = 359, 2x4 = 360, 2x4 = 361, 2x4 = 362, 2x4 = 363, 2x4 = 364, 2x4 = 365, 2x4 = 366, 2x4 = 367, 2x4 = 368, 2x4 = 369, 2x4 = 370, 2x4 = 371, 2x4 = 372, 2x4 = 373, 2x4 = 374, 2x4 = 375, 2x4 = 376, 2x4 = 377, 2x4 = 378, 2x4 = 379, 2x4 = 380, 2x4 = 381, 2x4 = 382, 2x4 = 383, 2x4 = 384, 2x4 = 385, 2x4 = 386, 2x4 = 387, 2x4 = 388, 2x4 = 389, 2x4 = 390, 2x4 = 391, 2x4 = 392, 2x4 = 393, 2x4 = 394, 2x4 = 395, 2x4 = 396, 2x4 = 397, 2x4 = 398, 2x4 = 399, 2x4 = 400, 2x4 = 401, 2x4 = 402, 2x4 = 403, 2x4 = 404, 2x4 = 405, 2x4 = 406, 2x4 = 407, 2x4 = 408, 2x4 = 409,

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.90	Vert(LL) -0.19 21-23 >999 240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.95	Vert(CT) -0.40 19-24 >612 180	MT18HS	197/144
BCLL 0.0 *	Rep Stress Incr NO	WB 0.83	Horz(CT) 0.10 13 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 347 lb	FT = 20%

**FORCES.** (lb) - Maximum Compression/Maximum Tension

TOP CHORD	27-28=-4822/381, 1-26=-12606/1152, 1-2=-8842/881, 2-3=-4165/449, 3-4=-2802/347, 4-5=-3100/359, 5-6=-262/3932, 6-8=-150/1581, 8-31=-160/1639, 7-9=-145/0
BOT CHORD	26-28=-9954/837, 23-26=-318/1552, 23-32=-361/3578, 32-33=-361/3578, 21-33=-361/3578, 21-34=-141/1014, 20-34=-141/1014, 20-35=-141/1014, 18-35=-141/1014, 17-18=-141/1014, 17-36=-3526/373, 16-36=-3526/373, 15-16=-3526/373, 15-37=-10420/901, 12-37=-10420/901, 12-38=-3950/318, 11-38=-3950/318, 11-39=-1449/170, 10-39=-1449/170, 8-10=-1517/132, 7-8=-153/0, 9-10=0/218, 25-27=-76/544, 25-40=-849/8878, 24-40=-849/8878, 24-41=-839/8898, 22-41=-839/8898, 22-42=-839/8898, 42-43=-839/8898, 19-43=-839/8898, 19-44=-677/7238, 44-45=-677/7238, 14-45=-677/7238, 14-46=-424/4472, 46-47=-424/4472, 47-48=-424/4472, 13-48=-424/4472
WEBS	1-23=-162/2704, 1-21=-2616/242, 2-21=-313/3746, 2-17=-5069/559, 3-17=-329/3779, 3-15=-2809/265, 4-15=-181/913, 6-10=-31/1117, 11-13=-8916/793, 5-11=-5777/534, 5-15=-507/6665, 14-16=-887/160, 19-20=0/383, 23-24=0/142, 6-11=-2393/190, 25-26=-4773/395, 19-23=-1695/165, 25-28=-878/10245, 23-25=-40/1291, 12-14=-269/2956, 12-13=-3969/388

- 1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc, Except member 26-25 2x4 - 1 row at 0-7-0 oc, 2x6 - 2 rows staggered at 0-7-0 oc.
- 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) interior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.

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December 4, 2020



16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853156
2552987	A04	Roof Special Girder	1	2	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Dec 4 09:07:13 2020 Page 2  
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#### NOTES-

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Bearing at joint(s) 27, 9, 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 376 lb uplift at joint 27 and 874 lb uplift at joint 13.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 699 lb down and 68 lb up at 26-0-12 on top chord, and 1099 lb down and 148 lb up at 4-0-12, 1099 lb down and 147 lb up at 6-0-12, 1099 lb down and 145 lb up at 8-0-12, 1099 lb down and 142 lb up at 10-0-12, 1099 lb down and 139 lb up at 12-0-12, 1141 lb down and 138 lb up at 14-0-12, 1141 lb down and 138 lb up at 16-0-12, 1141 lb down and 138 lb up at 18-0-12, 1141 lb down and 138 lb up at 20-0-12, and 665 lb down and 117 lb up at 22-0-12, and 689 lb down and 118 lb up at 24-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S)

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

Uniform Loads (plf)

Vert: 3-26=-90, 3-4=-90, 4-8=-90, 26-28=-160, 10-11=-20, 7-8=-20, 9-10=-111, 25-27=-160, 13-25=-20

Concentrated Loads (lb)

Vert: 10=-643(B) 11=-1099(B) 23=-1099(B) 31=-666(B) 32=-1099(B) 33=-1099(B) 34=-1099(B) 35=-1099(B) 36=-1099(B) 37=-1099(B) 38=-1099(B) 39=-665(B)

- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 3-26=-78, 3-4=-78, 4-8=-77, 26-28=-135, 10-11=-20, 7-8=-20, 9-10=-99, 25-27=-135, 13-25=-20

Concentrated Loads (lb)

Vert: 10=-672(B) 11=-1141(B) 23=-967(B) 31=-591(B) 32=-967(B) 33=-967(B) 34=-967(B) 35=-967(B) 36=-1141(B) 37=-1141(B) 38=-1141(B) 39=-583(B)

- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90

Uniform Loads (plf)

Vert: 3-26=-40, 3-4=-40, 4-8=-40, 26-28=-60, 10-11=-20, 7-8=-20, 9-10=-61, 25-27=-60, 13-25=-20

Concentrated Loads (lb)

Vert: 10=-468(B) 11=-783(B) 23=-783(B) 31=-501(B) 32=-783(B) 33=-783(B) 34=-783(B) 35=-783(B) 36=-783(B) 37=-783(B) 38=-783(B) 39=-468(B)

- 4) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 3-26=22, 3-4=25, 4-8=13, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12

Horz: 27-28=11, 3-26=-34, 4-8=25, 7-9=16, 9-10=5

Concentrated Loads (lb)

Vert: 10=77(B) 11=102(B) 23=112(B) 31=40(B) 32=111(B) 33=109(B) 34=106(B) 35=103(B) 36=102(B) 37=102(B) 38=102(B) 39=81(B)

- 5) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 3-26=13, 3-4=25, 4-8=22, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12

Horz: 27-28=-16, 3-26=-25, 4-8=34, 7-9=-11, 9-10=5

Concentrated Loads (lb)

Vert: 10=77(B) 11=102(B) 23=112(B) 31=34(B) 32=111(B) 33=109(B) 34=106(B) 35=103(B) 36=102(B) 37=102(B) 38=102(B) 39=81(B)

- 6) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 3-26=-16, 3-4=-14, 4-8=-25, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-20

Horz: 27-28=22, 3-26=-24, 4-8=15, 7-9=6, 9-10=5

Concentrated Loads (lb)

Vert: 10=118(B) 11=138(B) 23=148(B) 31=65(B) 32=147(B) 33=145(B) 34=142(B) 35=139(B) 36=138(B) 37=138(B) 38=138(B) 39=117(B)

- 7) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 3-26=-25, 3-4=-14, 4-8=-16, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-20

Horz: 27-28=-6, 3-26=-15, 4-8=24, 7-9=-22, 9-10=5

Concentrated Loads (lb)

Vert: 10=118(B) 11=138(B) 23=148(B) 31=59(B) 32=147(B) 33=145(B) 34=142(B) 35=139(B) 36=138(B) 37=138(B) 38=138(B) 39=117(B)

- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 3-26=25, 3-4=9, 4-8=9, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12

Horz: 27-28=6, 3-26=-37, 4-8=21, 7-9=14, 9-10=5

Concentrated Loads (lb)

Vert: 10=77(B) 11=102(B) 23=112(B) 31=43(B) 32=111(B) 33=109(B) 34=106(B) 35=103(B) 36=102(B) 37=102(B) 38=102(B) 39=81(B)

- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 3-26=9, 3-4=9, 4-8=25, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12

Horz: 27-28=-14, 3-26=-21, 4-8=37, 7-9=-6, 9-10=5

Concentrated Loads (lb)

Vert: 10=77(B) 11=102(B) 23=112(B) 31=32(B) 32=111(B) 33=109(B) 34=106(B) 35=103(B) 36=102(B) 37=102(B) 38=102(B) 39=81(B)

- 10) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Uniform Loads (plf)

Vert: 3-26=14, 3-4=4, 4-8=4, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12

Horz: 27-28=6, 3-26=-26, 4-8=16, 7-9=14, 9-10=5

Concentrated Loads (lb)

Vert: 10=77(B) 11=102(B) 23=112(B) 31=46(B) 32=111(B) 33=109(B) 34=106(B) 35=103(B) 36=102(B) 37=102(B) 38=102(B) 39=81(B)

- 11) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside
2552987	A04	Roof Special Girder	1	2	I43853156

Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Dec 4 09:07:13 2020 Page 3  
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# **LOAD CASE(S)**

- Uniform Loads (plf)  
Vert: 3-26=4, 3-4=4, 4-8=14, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12  
Horz: 27-28=-14, 3-26=-16, 4-8=26, 7-9=-6, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=77(B) 11=102(B) 23=112(B) 31=40(B) 32=111(B) 33=109(B) 34=106(B) 35=103(B) 36=102(B) 37=102(B) 38=102(B) 39=81(B)
- 12) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-14, 3-4=-30, 4-8=-30, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-50  
Horz: 27-28=17, 3-26=-26, 4-8=10, 7-9=3, 9-10=-5
- Concentrated Loads (lb)  
Vert: 10=118(B) 11=138(B) 23=148(B) 31=68(B) 32=147(B) 33=145(B) 34=142(B) 35=139(B) 36=138(B) 37=138(B) 38=138(B) 39=117(B)
- 13) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-30, 3-4=-30, 4-8=-14, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-20  
Horz: 27-28=-3, 3-26=-10, 4-8=26, 7-9=-17, 9-10=-5
- Concentrated Loads (lb)  
Vert: 10=118(B) 11=138(B) 23=148(B) 31=58(B) 32=147(B) 33=145(B) 34=142(B) 35=139(B) 36=138(B) 37=138(B) 38=138(B) 39=117(B)
- 14) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90  
Uniform Loads (plf)  
Vert: 3-26=-40, 3-4=-40, 4-8=-40, 26-28=-60, 10-11=-20, 7-8=-20, 9-10=-61, 25-27=-60, 13-25=-20
- Concentrated Loads (lb)  
Vert: 10=-477(B) 11=-804(B) 23=-572(B) 31=-369(B) 32=-572(B) 33=-572(B) 34=-572(B) 35=-572(B) 36=-804(B) 37=-804(B) 38=-804(B) 39=-336(B)
- 15) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-60, 3-4=-58, 4-8=-66, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20  
Horz: 27-28=16, 3-26=-18, 4-8=11, 7-9=4, 9-10=-4
- Concentrated Loads (lb)  
Vert: 10=64(B) 11=55(B) 23=63(B) 31=16(B) 32=62(B) 33=60(B) 34=58(B) 35=56(B) 36=55(B) 37=55(B) 38=55(B) 39=63(B)
- 16) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-66, 3-4=-58, 4-8=-60, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20  
Horz: 27-28=-4, 3-26=-11, 4-8=18, 7-9=-16, 9-10=-4
- Concentrated Loads (lb)  
Vert: 10=64(B) 11=55(B) 23=63(B) 31=12(B) 32=62(B) 33=60(B) 34=58(B) 35=56(B) 36=55(B) 37=55(B) 38=55(B) 39=63(B)
- 17) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-58, 3-4=-70, 4-8=-70, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20  
Horz: 27-28=13, 3-26=-20, 4-8=8, 7-9=2, 9-10=-4
- Concentrated Loads (lb)  
Vert: 10=64(B) 11=55(B) 23=63(B) 31=18(B) 32=62(B) 33=60(B) 34=58(B) 35=56(B) 36=55(B) 37=55(B) 38=55(B) 39=63(B)
- 18) Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-70, 3-4=-70, 4-8=-58, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20  
Horz: 27-28=-2, 3-26=-8, 4-8=20, 7-9=-13, 9-10=-4
- Concentrated Loads (lb)  
Vert: 10=64(B) 11=55(B) 23=63(B) 31=10(B) 32=62(B) 33=60(B) 34=58(B) 35=56(B) 36=55(B) 37=55(B) 38=55(B) 39=63(B)
- 19) Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-15, 3-4=-12, 4-8=-12, 26-28=-24, 10-11=-12, 7-8=-12, 9-10=-24, 25-27=-24, 13-25=-12  
Horz: 27-28=16, 3-26=3
- Concentrated Loads (lb)  
Vert: 10=45(B) 11=47(B) 23=57(B) 31=22(B) 32=55(B) 33=53(B) 34=51(B) 35=48(B) 36=47(B) 37=47(B) 38=47(B) 39=46(B)
- 20) Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-12, 3-4=-12, 4-8=-15, 26-28=-24, 10-11=-12, 7-8=-12, 9-10=-24, 25-27=-24, 13-25=-12  
Horz: 4-8=-3, 7-9=-16
- Concentrated Loads (lb)  
Vert: 10=45(B) 11=47(B) 23=57(B) 31=24(B) 32=55(B) 33=53(B) 34=51(B) 35=48(B) 36=47(B) 37=47(B) 38=47(B) 39=46(B)
- 21) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-26=-90, 3-4=-90, 4-8=-40, 26-28=-160, 10-11=-20, 7-8=-20, 9-10=-61, 25-27=-160, 13-25=-20
- Concentrated Loads (lb)  
Vert: 10=-665(B) 11=-1099(B) 23=-1099(B) 31=-699(B) 32=-1099(B) 33=-1099(B) 34=-1099(B) 35=-1099(B) 36=-1099(B)  
37=-1099(B) 38=-1099(B) 39=-665(B)
- 22) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-26=-40, 3-4=-90, 4-8=-90, 26-28=-60, 10-11=-20, 7-8=-20, 9-10=-111, 25-27=-60, 13-25=-20
- Concentrated Loads (lb)  
Vert: 10=-643(B) 11=-1099(B) 23=-1099(B) 31=-666(B) 32=-1099(B) 33=-1099(B) 34=-1099(B) 35=-1099(B) 36=-1099(B)  
37=-1099(B) 38=-1099(B) 39=-665(B)
- 23) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-26=-78, 3-4=-78, 4-8=-40, 26-28=-135, 10-11=-20, 7-8=-20, 9-10=-61, 25-27=-135, 13-25=-20

Continued on page 4

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16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853156
2552987	A04	Roof Special Girder	1	2	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Dec 4 09:07:13 2020 Page 4  
ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-FYGUe76xyIUPiJAvb2S1\_L8VsM6VR8zqksPuyCORS

# **LOAD CASE(S)**

- Concentrated Loads (lb)  
Vert: 10=-689(B) 11=-1141(B) 23=-967(B) 31=-616(B) 32=-967(B) 33=-967(B) 34=-967(B) 35=-967(B) 36=-1141(B) 37=-1141(B) 38=-1141(B) 39=-583(B)
- 24) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 3-26=-40, 3-4=-78, 4-8=-77, 26-28=-60, 10-11=-20, 7-8=-20, 9-10=-99, 25-27=-60, 13-25=-20
- Concentrated Loads (lb)  
Vert: 10=-672(B) 11=-1141(B) 23=-967(B) 31=-591(B) 32=-967(B) 33=-967(B) 34=-967(B) 35=-967(B) 36=-1141(B) 37=-1141(B) 38=-1141(B) 39=-583(B)
- 25) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=22, 3-4=25, 4-8=13, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12  
Horz: 27-28=11, 3-26=-34, 4-8=25, 7-9=16, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-370(B) 11=-589(B) 23=-523(B) 31=-410(B) 32=-522(B) 33=-539(B) 34=-562(B) 35=-584(B) 36=-589(B) 37=-589(B) 38=-589(B) 39=-364(B)
- 26) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=13, 3-4=25, 4-8=22, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12  
Horz: 27-28=-16, 3-26=-25, 4-8=34, 7-9=-11, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-370(B) 11=-589(B) 23=-523(B) 31=-416(B) 32=-522(B) 33=-539(B) 34=-562(B) 35=-584(B) 36=-589(B) 37=-589(B) 38=-589(B) 39=-364(B)
- 27) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-16, 3-4=-14, 4-8=-25, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-20  
Horz: 27-28=22, 3-26=-24, 4-8=15, 7-9=6, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-329(B) 11=-553(B) 23=-487(B) 31=-384(B) 32=-486(B) 33=-503(B) 34=-526(B) 35=-548(B) 36=-553(B) 37=-553(B) 38=-553(B) 39=-328(B)
- 28) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-25, 3-4=-14, 4-8=-16, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-20  
Horz: 27-28=-6, 3-26=-15, 4-8=24, 7-9=-22, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-329(B) 11=-553(B) 23=-487(B) 31=-390(B) 32=-486(B) 33=-503(B) 34=-526(B) 35=-548(B) 36=-553(B) 37=-553(B) 38=-553(B) 39=-328(B)
- 29) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=25, 3-4=9, 4-8=9, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12  
Horz: 27-28=6, 3-26=-37, 4-8=21, 7-9=14, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-370(B) 11=-589(B) 23=-523(B) 31=-407(B) 32=-522(B) 33=-539(B) 34=-562(B) 35=-584(B) 36=-589(B) 37=-589(B) 38=-589(B) 39=-364(B)
- 30) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=9, 3-4=9, 4-8=25, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12  
Horz: 27-28=-14, 3-26=-21, 4-8=37, 7-9=-6, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-370(B) 11=-589(B) 23=-523(B) 31=-417(B) 32=-522(B) 33=-539(B) 34=-562(B) 35=-584(B) 36=-589(B) 37=-589(B) 38=-589(B) 39=-364(B)
- 31) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=14, 3-4=4, 4-8=4, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12  
Horz: 27-28=6, 3-26=-26, 4-8=16, 7-9=14, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-370(B) 11=-589(B) 23=-523(B) 31=-404(B) 32=-522(B) 33=-539(B) 34=-562(B) 35=-584(B) 36=-589(B) 37=-589(B) 38=-589(B) 39=-364(B)
- 32) Reversal: Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=4, 3-4=4, 4-8=14, 26-28=-13, 10-11=-12, 7-8=-12, 9-10=-19, 25-27=-13, 13-25=-12  
Horz: 27-28=-14, 3-26=-16, 4-8=26, 7-9=-6, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-370(B) 11=-589(B) 23=-523(B) 31=-410(B) 32=-522(B) 33=-539(B) 34=-562(B) 35=-584(B) 36=-589(B) 37=-589(B) 38=-589(B) 39=-364(B)
- 33) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-14, 3-4=-30, 4-8=-30, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-20  
Horz: 27-28=17, 3-26=-26, 4-8=10, 7-9=3, 9-10=-5
- Concentrated Loads (lb)  
Vert: 10=-329(B) 11=-553(B) 23=-487(B) 31=-381(B) 32=-486(B) 33=-503(B) 34=-526(B) 35=-548(B) 36=-553(B) 37=-553(B) 38=-553(B) 39=-328(B)
- 34) Reversal: Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-30, 3-4=-30, 4-8=-14, 26-28=-71, 10-11=-20, 7-8=-20, 9-10=-67, 25-27=-71, 13-25=-20  
Horz: 27-28=-3, 3-26=-10, 4-8=26, 7-9=-17, 9-10=5
- Concentrated Loads (lb)  
Vert: 10=-329(B) 11=-553(B) 23=-487(B) 31=-392(B) 32=-486(B) 33=-503(B) 34=-526(B) 35=-548(B) 36=-553(B) 37=-553(B) 38=-553(B) 39=-328(B)
- 35) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 3-26=-60, 3-4=-58, 4-8=-66, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20  
Horz: 27-28=16, 3-26=-18, 4-8=11, 7-9=4, 9-10=-4

Continued on page 5

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853156
2552987	A04	Roof Special Girder	1	2	Job Reference (optional)	

Builders First Source, Valley Center, KS 67147

8.240 s Mar 9 2020 MiTek Industries, Inc. Fri Dec 4 09:07:13 2020 Page 5  
ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-FYGUe76xylUPiJAvb2p2S1\_L8VsM6VR8zqksPuyCORS

# **LOAD CASE(S)**

## Concentrated Loads (lb)

Vert: 10=-579(B) 11=-985(B) 23=-805(B) 31=-541(B) 32=-804(B) 33=-816(B) 34=-834(B) 35=-850(B) 36=-985(B) 37=-985(B) 38=-985(B) 39=-515(B)

36) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

## Uniform Loads (plf)

Vert: 3-26=-66, 3-4=-58, 4-8=-60, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20

Horz: 27-28=-4, 3-26=-11, 4-8=18, 7-9=-16, 9-10=-4

## Concentrated Loads (lb)

Vert: 10=-579(B) 11=-985(B) 23=-805(B) 31=-546(B) 32=-804(B) 33=-816(B) 34=-834(B) 35=-850(B) 36=-985(B) 37=-985(B) 38=-985(B) 39=-515(B)

37) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60

## Uniform Loads (plf)

Vert: 3-26=-58, 3-4=-70, 4-8=-70, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20

Horz: 27-28=13, 3-26=-20, 4-8=8, 7-9=2, 9-10=-4

## Concentrated Loads (lb)

Vert: 10=-579(B) 11=-985(B) 23=-805(B) 31=-539(B) 32=-804(B) 33=-816(B) 34=-834(B) 35=-850(B) 36=-985(B) 37=-985(B) 38=-985(B) 39=-515(B)

38) Reversal: Dead + 0.75 Roof Live (bal.) + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60

## Uniform Loads (plf)

Vert: 3-26=-70, 3-4=-70, 4-8=-58, 26-28=-143, 10-11=-20, 7-8=-20, 9-10=-103, 25-27=-143, 13-25=-20

Horz: 27-28=-2, 3-26=-8, 4-8=20, 7-9=-13, 9-10=-4

## Concentrated Loads (lb)

Vert: 10=-579(B) 11=-985(B) 23=-805(B) 31=-547(B) 32=-804(B) 33=-816(B) 34=-834(B) 35=-850(B) 36=-985(B) 37=-985(B) 38=-985(B) 39=-515(B)

39) Reversal: Dead + 0.6 MWFRS Wind Min. Left: Lumber Increase=1.60, Plate Increase=1.60

## Uniform Loads (plf)

Vert: 3-26=-15, 3-4=-12, 4-8=-12, 26-28=-24, 10-11=-12, 7-8=-12, 9-10=-24, 25-27=-24, 13-25=-12

Horz: 27-28=16, 3-26=3

## Concentrated Loads (lb)

Vert: 10=-333(B) 11=-534(B) 23=-467(B) 31=-358(B) 32=-466(B) 33=-483(B) 34=-506(B) 35=-528(B) 36=-534(B) 37=-534(B) 38=-534(B) 39=-329(B)

40) Reversal: Dead + 0.6 MWFRS Wind Min. Right: Lumber Increase=1.60, Plate Increase=1.60

## Uniform Loads (plf)

Vert: 3-26=-12, 3-4=-12, 4-8=-15, 26-28=-24, 10-11=-12, 7-8=-12, 9-10=-24, 25-27=-24, 13-25=-12

Horz: 4-8=-3, 7-9=-16

## Concentrated Loads (lb)

Vert: 10=-333(B) 11=-534(B) 23=-467(B) 31=-356(B) 32=-466(B) 33=-483(B) 34=-506(B) 35=-528(B) 36=-534(B) 37=-534(B) 38=-534(B) 39=-329(B)

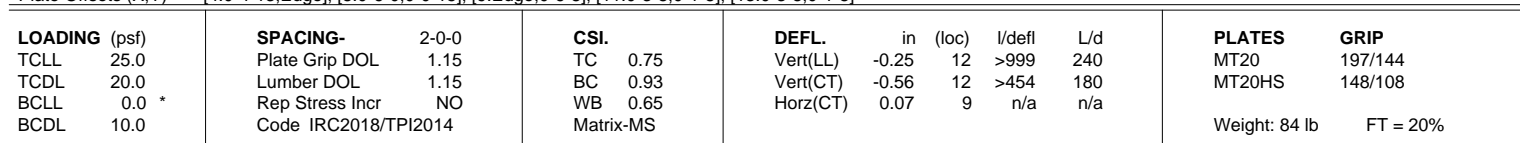
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:15 2020 Page 1  
 ID:wH4RYhEsTNeUP2dXvOf1syQY8e-fyOjY\_IAYi1JBZs9MnDHzrucSO3kWyoXjfo02?yCgM\_  
 0-10-8 2-9-0 6-7-10 10-8-0 14-8-6 18-7-0 21-0-14  
 0-10-8 2-9-0 3-10-10 4-0-6 4-0-6 3-10-10 2-5-14  
 Scale = 1:37.4



<b>BRACING-</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied or 2-9-3 oc purlins, except 2-0-0 oc purlins (2-6-11 max.): 4-8.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 7-5-6 oc bracing.

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

**TOP CHORD** 2-4=-2756/822, 4-5=-4797/948, 5-6=-5521/1011, 6-7=-5521/1011, 7-8=-4687/912, 8-9=-634/351

**BOT CHORD** 2-15=-718/2421, 13-15=-698/2412, 12-13=-936/4793, 11-12=-889/4683, 10-11=-630/2283, 9-10=-649/2298

**WEBS** 4-15=-243/392, 4-13=-275/2629, 5-13=-891/197, 5-12=-105/808, 6-12=-481/141, 7-12=-141/925, 7-11=-921/206, 8-11=-294/2649, 8-10=-221/398

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCFL=6.0psf; BCDL=6.0psf; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=564, 2=572.
- 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.
- 11) Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent spaced at 17-2-8 oc max. starting at 2-0-12 from the left end to 19-3-4 to connect truss(es) to front face of bottom chord.
- 12) Fill all nail holes where hanger is in contact with lumber.
- 13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 14) 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

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December 4, 2020



16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside
2552987	B01	Hip Girder	1	1	I43853157
Job Reference (optional)					

LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-4=-90, 4-8=-90, 8-9=-90, 16-20=-20
- Concentrated Loads (lb)
- Vert: 24=-57(F) 25=-57(F) 26=-57(F) 27=-57(F) 28=-57(F) 29=-57(F) 30=-57(F) 31=-57(F) 32=-197(F) 33=-41(F) 34=-41(F) 35=-41(F) 36=-41(F) 37=-41(F) 38=-41(F) 39=-41(F) 40=-41(F) 41=-197(F)

 **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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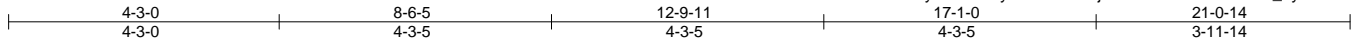
16023 Swingley Ridge Rd  
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Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853158
2552987	B02	Hip	1	1		

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ID:wH4RYhEstNeUP2dXvOf1syQY8e-79y6lKJoJ09AojQLwVkw62QrDnS3FR\_hyJXaURYCgLz



Scale = 1:36.2

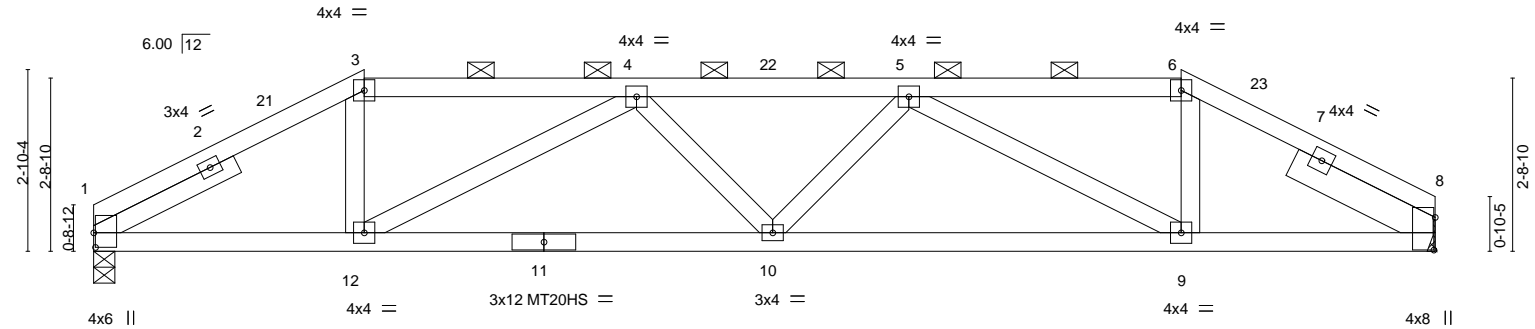


Plate Offsets (X,Y)--	1:0-2-12,0-0-5, [8:0-6-2,0-0-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.10	10	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.66	Vert(CT)	-0.24	9-10	>999	180	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.52	Horz(CT)	0.07	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 80 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (3-6-8 max.): 3-6.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 1=0-4-0, 8=Mechanical  
Max Horz 1=35(LC 12)  
Max Uplift 1=90(LC 12), 8=88(LC 13)  
Max Grav 1=1159(LC 1), 8=1159(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1829/168, 3-4=-1569/172, 4-5=-2519/211, 5-6=-1481/166, 6-8=-1747/164  
BOT CHORD 1-12=-119/1599, 10-12=-234/2462, 9-10=-223/2438, 8-9=-97/1512  
WEBS 3-12=-5/565, 4-12=-1081/163, 5-9=-1145/166, 6-9=-6/579

- 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=6.0psf; 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 4-3-0, Exterior(2R) 4-3-0 to 8-6-5, Interior(1) 8-6-5 to 17-1-0, Exterior(2E) 17-1-0 to 21-0-14 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.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) 1, 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.
  - 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.



December 4,2020

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Chesterfield, MO 63017

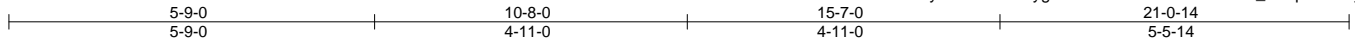
Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853159
2552987	B03	Hip	1	1		

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Job Reference (optional)



Scale = 1:36.2

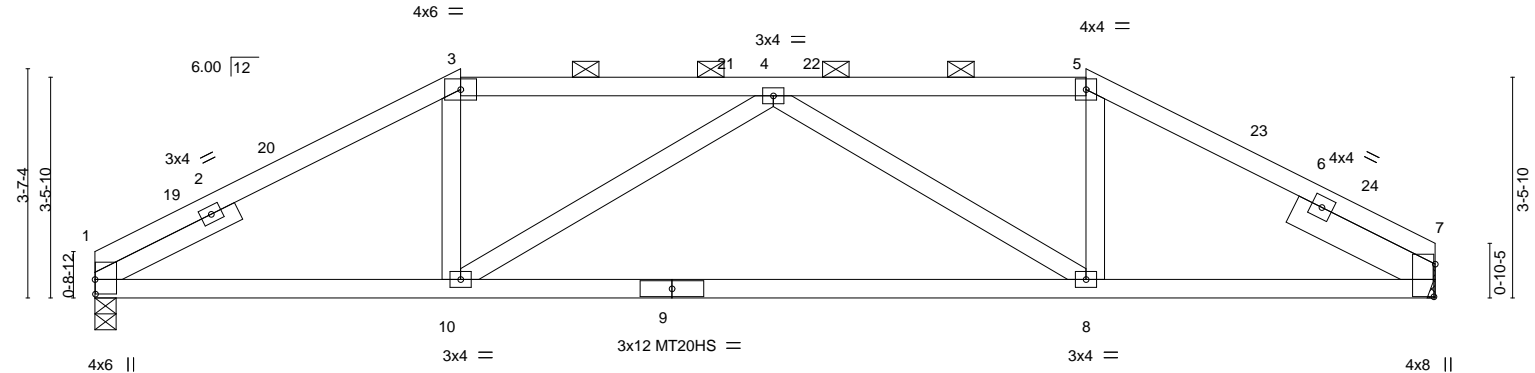


Plate Offsets (X,Y)--	[1:0-2,12,0-0-1], [7:0-6-2,0-0-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 25.0	2-0-0	TC 0.54	in (loc) l/defl L/d	MT20	197/144
TCDL 20.0	Plate Grip DOL 1.15	BC 0.83	Vert(LL) -0.26 8-10 >956 240	MT20HS	148/108
BCLL 0.0 *	Lumber DOL 1.15	WB 0.40	Vert(CT) -0.59 8-10 >428 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.07 7 n/a n/a		
	Code IRC2018/TPI2014			Weight: 77 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except  
2-0-0 oc purlins (4-4-5 max.): 3-5.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 1=0-4-0, 7=Mechanical  
Max Horz 1=46(LC 12)  
Max Uplift 1=89(LC 12), 7=87(LC 13)  
Max Grav 1=1159(LC 1), 7=1159(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1817/155, 3-4=-1552/169, 4-5=-1492/165, 5-7=-1762/152  
BOT CHORD 1-10=-88/1568, 8-10=-160/1946, 7-8=-74/1509  
WEBS 3-10=0/464, 4-10=-568/154, 4-8=-628/155, 5-8=0/477

#### 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=6.0psf; 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 5-9-0, Exterior(2R) 5-9-0 to 9-11-15, Interior(1) 9-11-15 to 15-7-0, Exterior(2R) 15-7-0 to 19-9-15, Interior(1) 19-9-15 to 21-0-14 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 1, 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.
- 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.



December 4, 2020

**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



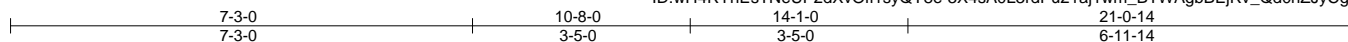
Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853160
2552987	B04	Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:18 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOf1syQY8e-3X4sA0L3rdPu21aj1wm\_BTWAgbBEjRv\_Qd0hZJyCgLx

Job Reference (optional)



Scale = 1:36.2

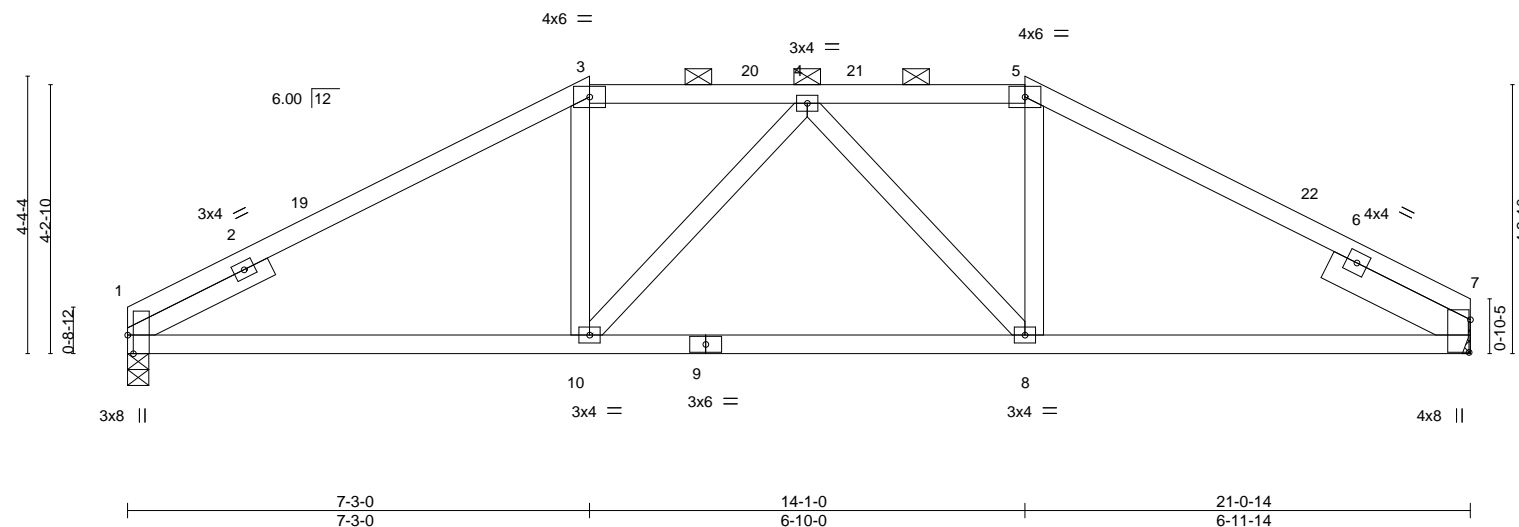


Plate Offsets (X,Y)-- [1:0-3-8,Edge], [7:0-6-2,0-0-4]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	-0.07 8-10	>999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.49	Vert(CT)	-0.15 8-10	>999	180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.18	Horz(CT)	0.05 7	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 78 lb	FT = 20%		

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (4-7-12 max.): 3-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0	

**REACTIONS.** (size) 1=0-4-0, 7=Mechanical  
Max Horz 1=58(LC 12)  
Max Uplift 1=87(LC 12), 7=85(LC 13)  
Max Grav 1=1159(LC 1), 7=1159(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1669/174, 3-4=-1445/199, 4-5=-1402/196, 5-7=-1668/172  
BOT CHORD 1-10=-87/1453, 8-10=-103/1554, 7-8=-78/1411  
WEBS 3-10=0/356, 4-10=-307/95, 4-8=-359/94, 5-8=0/373

#### 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=6.0psf; 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 7-3-0, Exterior(2R) 7-3-0 to 11-5-15, Interior(1) 11-5-15 to 14-1-0, Exterior(2R) 14-1-0 to 18-3-15, Interior(1) 18-3-15 to 21-0-14 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 1, 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.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853161
2552987	B05	Hip	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:19 2020 Page 1

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Job Reference (optional)

4-6-4	8-9-0	12-7-0	16-8-3	21-0-14
4-6-4	4-2-12	3-10-0	4-1-3	4-4-11

Scale = 1:36.2

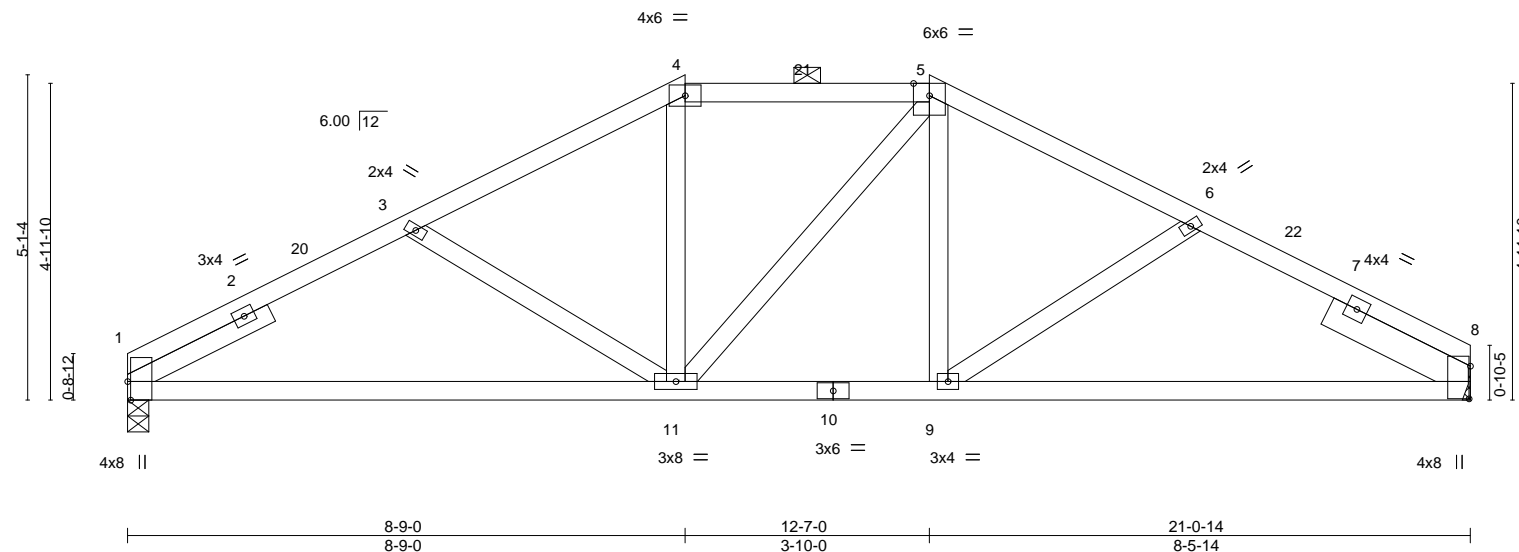


Plate Offsets (X, Y)-- [1:0-3-8, Edge], [8:0-6-2, 0-0-4]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.32	Vert(LL)	-0.10 11-14	>999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.21 11-14	>999	180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.05 8	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 86 lb	FT = 20%		

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied, except
BOT CHORD 2x4 SPF No.2	2-0-0 oc purlins (5-0-13 max.): 4-5.
WEBS 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied.
SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0	

**REACTIONS.** (size) 1=0-4-0, 8=Mechanical  
Max Horz 1=71(LC 12)  
Max Uplift 1=-84(LC 12), 8=-82(LC 13)  
Max Grav 1=1159(LC 1), 8=1159(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-1773/213, 3-4=-1522/182, 4-5=-1288/195, 5-6=-1480/181, 6-8=-1701/204  
BOT CHORD 1-11=-164/1543, 9-11=-56/1273, 8-9=-130/1462  
WEBS 3-11=-309/134, 4-11=0/301, 5-9=-0/273

#### 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=6.0psf; 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 8-9-0, Exterior(2E) 8-9-0 to 12-7-0, Exterior(2R) 12-7-0 to 16-9-14, Interior(1) 16-9-14 to 21-0-14 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 1, 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.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss B07	Truss Type Common	Qty 4	Ply 1	Summit/19 Woodside	I43853163
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:22 2020 Page 1
Job Reference (optional)						ID: wH4RYhEsTNeUP2dXvOfi1syQY8e-ylJN0OOZvsVJWuVGLrWmJguQCXKIFFZKF?ui5yCgLt



Plate Offsets (X,Y)-- [1:0-2-12,0-0-1], [7:0-6-2,0-0-4]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.38	Vert(LL)	-0.11 8-10	>999	240
TCDL 20.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.21 8-10	>999	180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.16	Horz(CT)	0.05 7	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 81 lb	FT = 20%		

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 2-6-0, Right 2x6 SPF No.2 2-6-0

#### BRACING-

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

#### REACTIONS.

(size) 1=0-4-0, 7=Mechanical  
 Max Horz 1=87(LC 12)  
 Max Uplift 1=-80(LC 12), 7=-78(LC 13)  
 Max Grav 1=1201(LC 2), 7=1201(LC 2)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-1825/229, 3-4=-1695/252, 4-5=-1629/244, 5-7=-1760/225  
 BOT CHORD 1-10=-153/1584, 8-10=-48/1119, 7-8=-134/1513  
 WEBS 3-10=-392/167, 4-10=-78/634, 4-8=-68/566, 5-8=-351/160

#### 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=6.0psf; 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 10-8-0, Exterior(2R) 10-8-0 to 13-8-0, Interior(1) 13-8-0 to 21-0-14 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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) 1, 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.
- 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.



December 4, 2020

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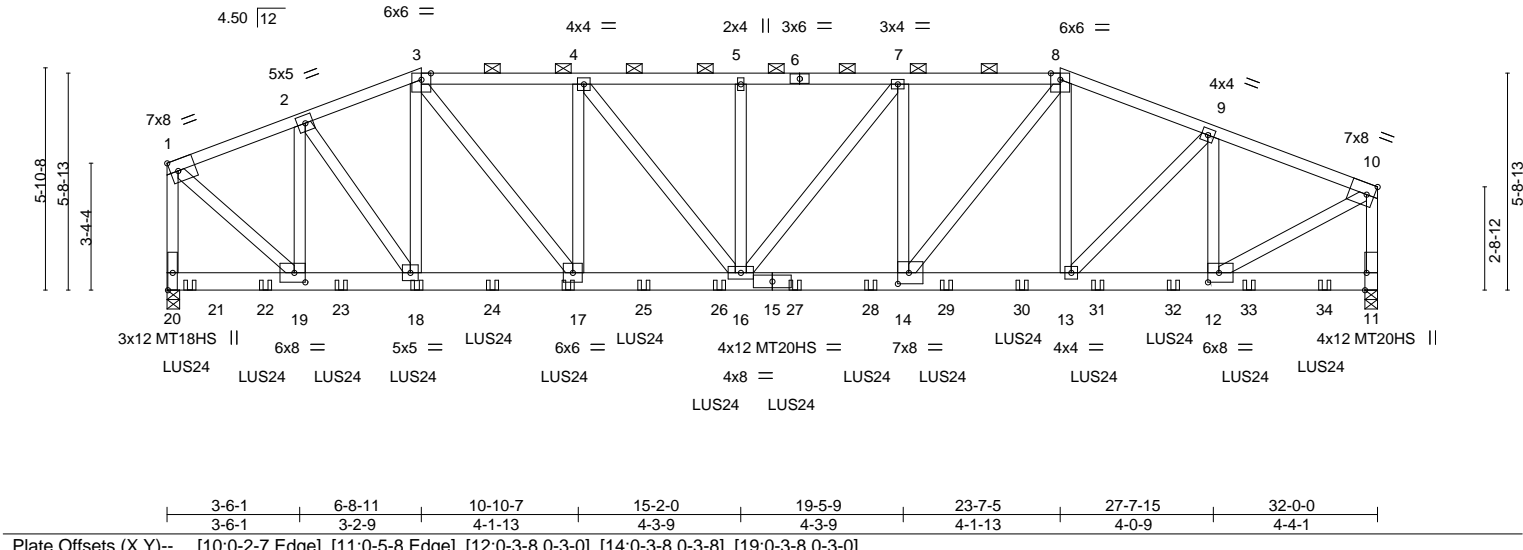
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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853164
2552987	C01	HIP GIRDER	1	2	Job Reference (optional)	

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:24 2020 Page 1  
ID:wH4RYhEsTNeUP2dXvOf1syQY8e-uhR7Q3PqQT91my2tOAtORkI8U0Fo7zusoZU?mzyCgLR  
3-6-1 6-8-11 10-10-7 15-2-0 19-5-9 23-7-5 27-7-15 32-0-0  
3-6-1 3-2-9 4-1-13 4-3-9 4-3-9 4-1-13 4-0-9 4-4-1  
Scale = 1:60.9



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.18 14-16	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.42	Vert(CT)	-0.40 14-16	>949	180	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.91	Horz(CT)	0.07 11	n/a	n/a	MT18HS	197/144
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MS					Weight: 411 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 3-10-0 oc purlins, except end verticals, and 2-0-0 oc purlins (3-3-3 max.): 3-8.
BOT CHORD 2x6 SP 2400F 2.0E	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

<b>REACTIONS.</b>	(size) 20=0-4-0, 11=0-4-0
	Max Horz 20=-85(LC 6)
	Max Uplift 20=-828(LC 4), 11=-723(LC 5)
	Max Grav 20=7000(LC 1), 11=6961(LC 1)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-5248/639, 2-3=-7102/872, 3-4=-9333/1074, 4-5=-10501/1119, 5-7=-10501/1119, 7-8=-10142/1051, 8-9=-8646/907, 9-10=-7103/739, 1-20=-6298/771, 10-11=-6358/675
BOT CHORD	18-19=-568/4862, 17-18=-761/6687, 16-17=-1006/9329, 14-16=-983/10138, 13-14=-802/8081, 12-13=-695/6588
WEBS	2-19=-3311/414, 2-18=-328/3103, 3-18=-1315/86, 3-17=-404/4389, 4-17=-2029/185, 4-16=-106/1917, 5-16=-378/103, 7-16=-172/648, 7-14=-1048/228, 8-14=-318/3453, 9-13=-167/2204, 9-12=-2315/258, 1-19=-775/6455, 10-12=-760/7448

- NOTES-**
- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=828, 11=723.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 6-7-4 to connect truss(es) to front face of bottom chord.



December 4, 2020

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853164
2552987	C01	HIP GIRDER	1	2	Job Reference (optional)	

- NOTES-**
- 13) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 8-7-4 from the left end to 30-7-4 to connect truss(es) to front face of bottom chord.
- 14) Fill all nail holes where hanger is in contact with lumber.

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-90, 3-8=-90, 8-10=-90, 11-20=-20

Concentrated Loads (lb)

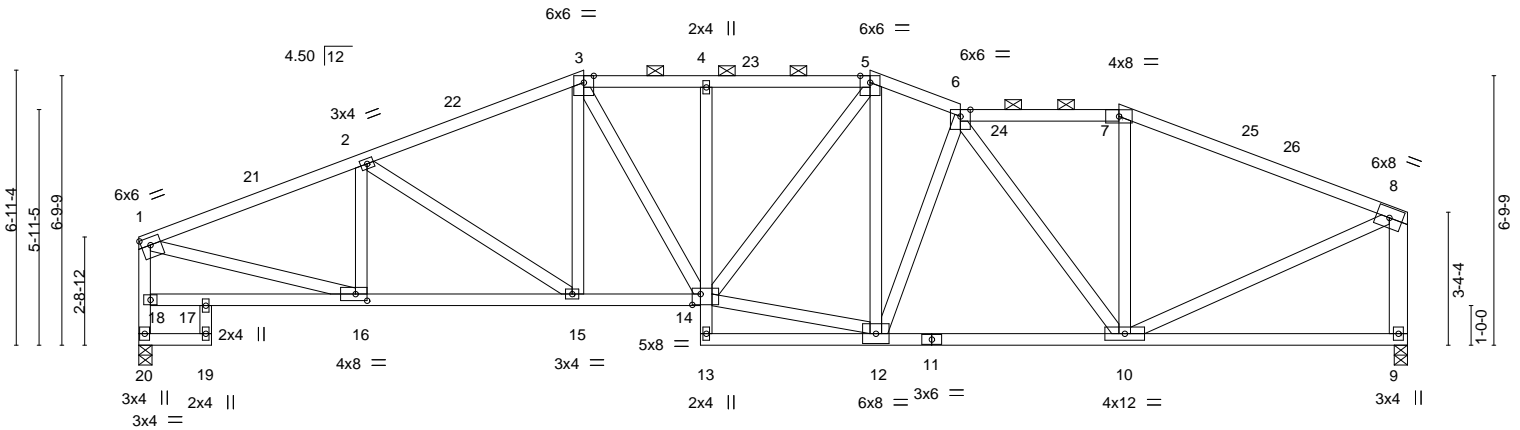
Vert: 18=-609(F) 17=-609(F) 21=-615(F) 22=-609(F) 23=-609(F) 24=-609(F) 25=-609(F) 26=-724(F) 27=-724(F) 28=-724(F) 29=-724(F) 30=-724(F) 31=-645(F) 32=-645(F) 33=-645(F) 34=-645(F)



Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853165
2552987	C02	Roof Special	1	1		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:26 2020 Page 1
						ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-q4YtriR4y4PI?GBGVbvsW9rTxpumbwW9Fz6rsyCgLP
						Job Reference (optional)

1-10-0	5-7-5	6-6-5	11-2-11	14-2-0	18-5-5	20-8-11	24-8-11	32-0-0
1-10-0	3-9-5	0-11-0	4-8-5	2-11-5	4-3-5	2-3-5	4-0-0	7-3-5

Scale = 1:58.1



1-10-0	5-7-5	11-2-11	14-2-0	18-5-5	20-8-11	24-8-11	32-0-0
1-10-0	3-9-5	5-7-5	2-11-5	4-3-5	2-3-5	4-0-0	7-3-5

Plate Offsets (X,Y)-- [1:0-2-12,0-2-4], [14:0-2-8,0-3-4], [16:0-3-8,0-2-0]

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 0.79	Vert(LL)	-0.11	4	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.24	4	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.71	Horz(CT)	0.10	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 170 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
8-9: 2x6 SPF No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and  
2-0-0 oc purlins (3-4-14 max.): 3-5, 6-7.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 20=0-4-0, 9=0-4-0  
Max Horz 20=80(LC 11)  
Max Uplift 20=-141(LC 8), 9=-162(LC 9)  
Max Grav 20=1739(LC 1), 9=1739(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2537/260, 2-3=-2522/281, 3-4=-2478/305, 4-5=-2474/306, 5-6=-2242/266,  
6-7=-1700/215, 7-8=-1924/192, 18-20=-1705/158, 1-18=-1665/164, 8-9=-1669/200  
BOT CHORD 16-17=-149/255, 15-16=-283/2301, 14-15=-236/2278, 4-14=-413/102, 10-12=-227/2187  
WEBS 3-14=-78/537, 12-14=-209/1992, 5-14=-80/727, 6-12=-358/117, 6-10=-829/94,  
8-10=-144/1740, 2-16=-494/131, 1-16=-164/2199

#### 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=6.0psf; 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 11-2-11, Exterior(2R) 11-2-11 to 14-3-12, Interior(1) 14-3-12 to 18-5-5, Exterior(2E) 18-5-5 to 20-8-11, Interior(1) 20-8-11 to 24-8-11, Exterior(2R) 24-8-11 to 27-8-11, Interior(1) 27-8-11 to 31-9-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 20=141, 9=162.
- This truss 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.



December 4,2020

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

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	143853166
2552987	C03	Roof Special	1	1	Job Reference (optional)	

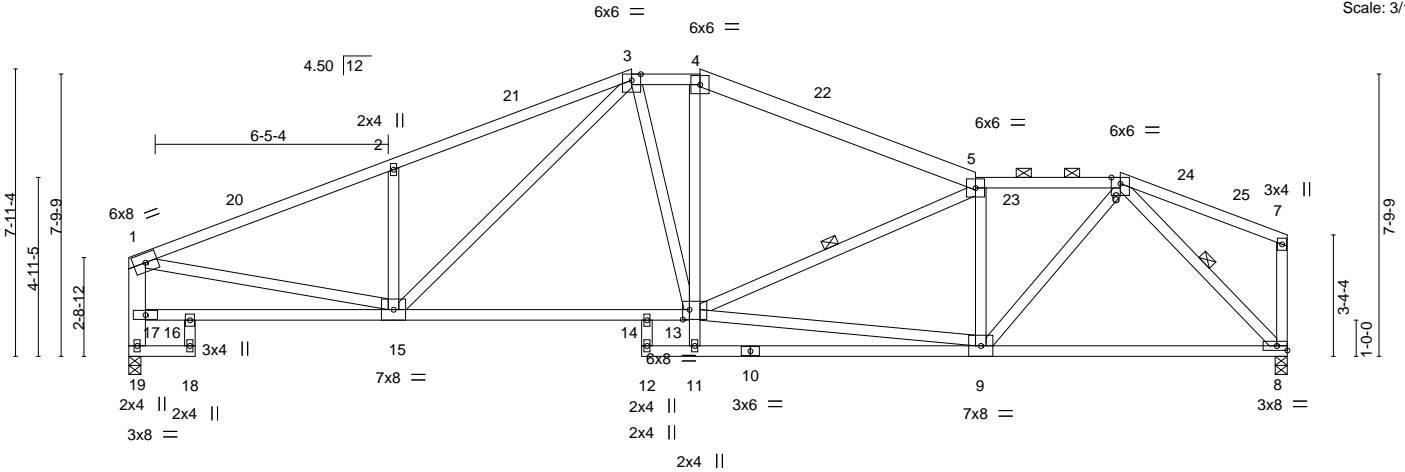
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:27 2020 Page 1

ID:WH4RYhEsTNeUP2dXvOfi1syQY8e-IG6G35RjOXcdPmS3JQ53NNg1DEXKQ1IUXifNlyCgLo

1-10-0	7-3-12	13-10-11	15-9-5	23-4-11	27-4-11	32-0-0
1-10-0	5-5-12	6-6-15	1-10-11	7-7-5	4-0-0	4-7-5

Scale: 3/16"=1'



1-10-0	7-3-12	14-2-0	15-9-5	23-4-11	27-4-11	32-0-0
1-10-0	5-5-12	6-10-4	1-7-5	7-7-5	4-0-0	4-7-5

Plate Offsets (X,Y)-- [13-0-2-4,0-3-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.64	Vert(LL)	-0.12	8-9	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.31	14-15	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.57	Horz(CT)	0.10	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
								Weight: 168 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
4-5: 2x6 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
1-19: 2x6 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-6-13 max.): 3-4, 5-6.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 5-13, 6-8

#### REACTIONS.

(size) 19=0-4-0, 8=0-4-0  
Max Horz 19=69(LC 11)  
Max Uplift 19=122(LC 8), 8=146(LC 9)  
Max Grav 19=1739(LC 1), 8=1739(LC 1)

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

TOP CHORD 1-2=-2680/247, 2-3=-2663/326, 3-4=-2153/270, 4-5=-2391/258, 5-6=-2323/215,  
17-19=-1680/143, 1-17=-1651/162  
BOT CHORD 16-17=-124/418, 15-16=-168/362, 14-15=-197/2078, 13-14=-197/2078, 8-9=-165/1420  
WEBS 1-15=-180/2162, 2-15=-642/221, 11-13=0/375, 4-13=-10/364, 5-9=-1252/187,  
6-9=-70/1443, 3-15=-154/561, 9-13=-229/2315, 5-13=-386/114, 3-13=-60/492,  
6-8=-1979/211

#### 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-2-12 to 3-2-12, Interior(1) 3-2-12 to 13-10-11, Exterior(2E) 13-10-11 to 15-9-5, Exterior(2R) 15-9-5 to 18-9-5, Interior(1) 18-9-5 to 27-4-11, Exterior(2R) 27-4-11 to 30-4-11, Interior(1) 30-4-11 to 31-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 19=122, 8=146.
- This truss 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853167
2552987	C04	Roof Special	1	1		
Job Reference (optional)						

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:28 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOf1syQY8e-nSgeGRSKUifTEZLed0yKbawQLda?3n5SjBSdvkyCgLn

7-6-12	14-10-0	20-5-5	26-0-11	30-0-11	32-0-0
7-6-12	7-3-4	5-7-5	5-7-5	4-0-0	1-11-5

Scale = 1:57.4

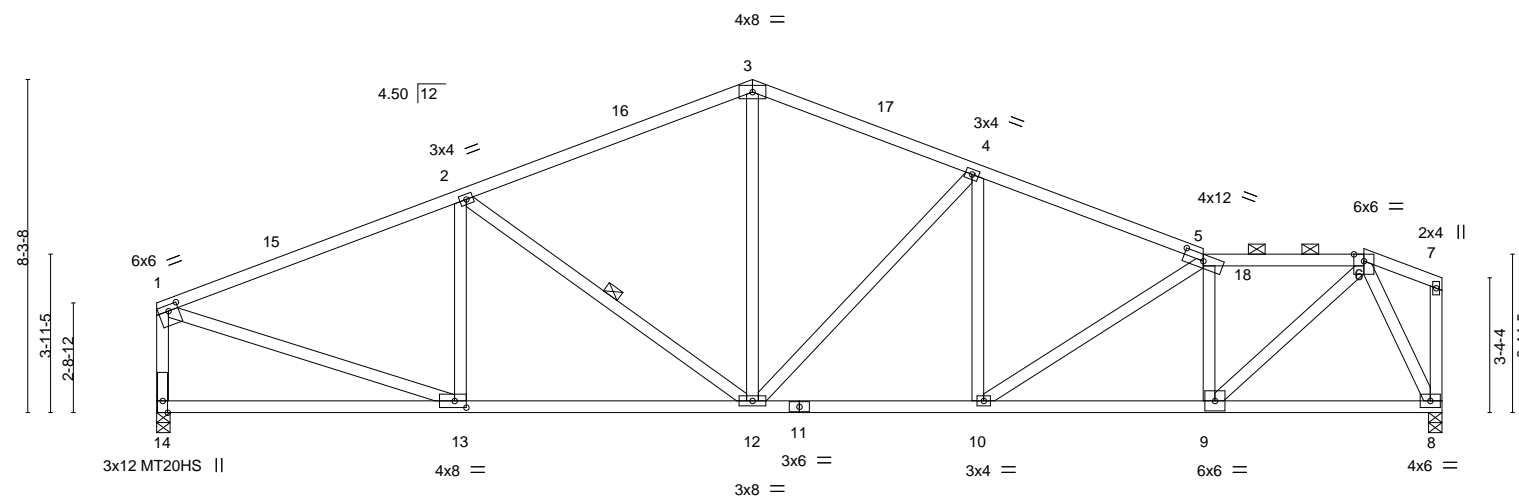


Plate Offsets (X,Y)--	[1:0-3-0,0-1-12], [5:0-6-0,0-1-15], [13:0-3-8,0-2-0]
-----------------------	--

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 0.74	Vert(LL)	-0.10	10	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.59	Vert(CT)	-0.23	12-13	>999	180	MT20HS
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.07	8	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						
									Weight: 151 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-8-12 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied.  
WEBS 1 Row at midpt 2-12

#### REACTIONS.

(size) 14=0-4-0, 8=0-4-0  
Max Horz 14=65(LC 9)  
Max Uplift 14=-117(LC 12), 8=-140(LC 9)  
Max Grav 14=1744(LC 1), 8=1744(LC 1)

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

TOP CHORD 1-2=-2229/172, 2-3=-2004/215, 3-4=-1967/219, 4-5=-2457/202, 5-6=-2220/167, 1-14=-1669/155  
BOT CHORD 12-13=-188/1989, 10-12=-175/2214, 9-10=-193/2269, 8-9=-103/807  
WEBS 2-13=-478/133, 2-12=-419/140, 3-12=-27/782, 4-12=-730/148, 5-9=-1247/160, 6-9=-121/1963, 1-13=-111/1971, 6-8=-1800/192

#### 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=6.0psf; 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 14-10-0, Exterior(2R) 14-10-0 to 17-10-0, Interior(1) 17-10-0 to 30-0-11, Exterior(2E) 30-0-11 to 31-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=117, 8=140.
- This truss 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

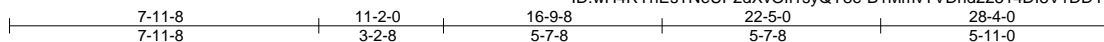


Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	143853169
2552987	C06	ROOF SPECIAL	1	1	Job Reference (optional)	

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

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ID:wH4RYhEstNeUP2dXvOfi1syQY8e-B1MmvTVdnd22514D18V1DDYJqX6GELuP9gtW3yCgk



4x6 ||

Scale = 1:59.3

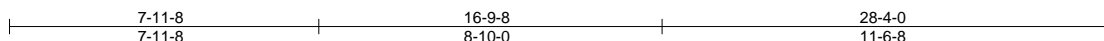
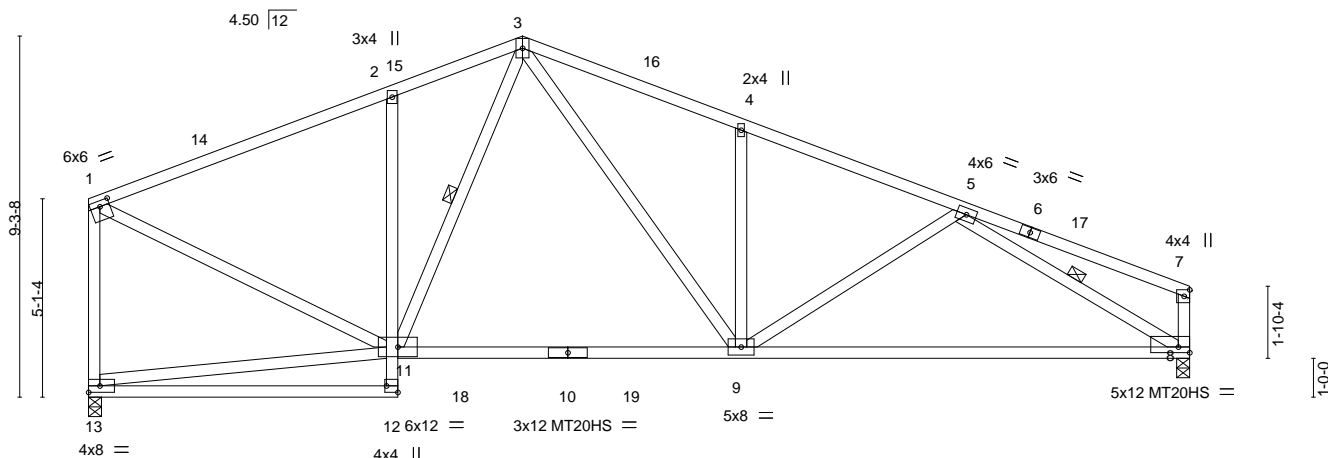


Plate Offsets (X,Y)-- [1:0-3-0,0-1-12], [8:Edge,0-1-12], [12:Edge,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.33	8-9	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.69	8-9	>487	180	MT20HS	148/108
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.48	Horz(CT)	0.07	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 142 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2 \*Except\*  
 8-10: 2x4 SPF 1650F 1.5E  
 WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied.  
 WEBS 1 Row at midpt 3-11, 5-8

#### REACTIONS.

(size) 13=0-4-0, 8=0-4-0  
 Max Horz 13=-133(LC 10)  
 Max Uplift 13=-106(LC 8), 8=-125(LC 13)  
 Max Grav 13=1616(LC 2), 8=1605(LC 2)

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

TOP CHORD 1-2=-1618/190, 2-3=-1572/251, 3-4=-2191/260, 4-5=-2183/189, 5-7=-354/32,  
 1-13=-1494/157, 7-8=-323/62  
 BOT CHORD 2-11=-599/204, 9-11=-62/1360, 8-9=-175/1942  
 WEBS 4-9=-542/178, 3-9=-146/1090, 3-11=-123/272, 5-8=-2019/231, 1-11=-108/1525

#### 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=6.0psf; 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 11-2-0, Exterior(2R) 11-2-0 to 14-2-0, Interior(1) 14-2-0 to 28-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 13=106, 8=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.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017







Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	143853171
2552987	C08	HIP GIRDER	1	2	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:34 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-bc1vXUX54YQcyUoozH2krrAtC2eATTYK57vX7OyCgLh

3-2-7	6-1-5	7-11-8	12-1-1	16-2-11	22-1-9	28-4-0
3-2-7	2-10-15	1-10-3	4-1-9	4-1-9	5-10-15	6-2-7

Scale = 1:52.2

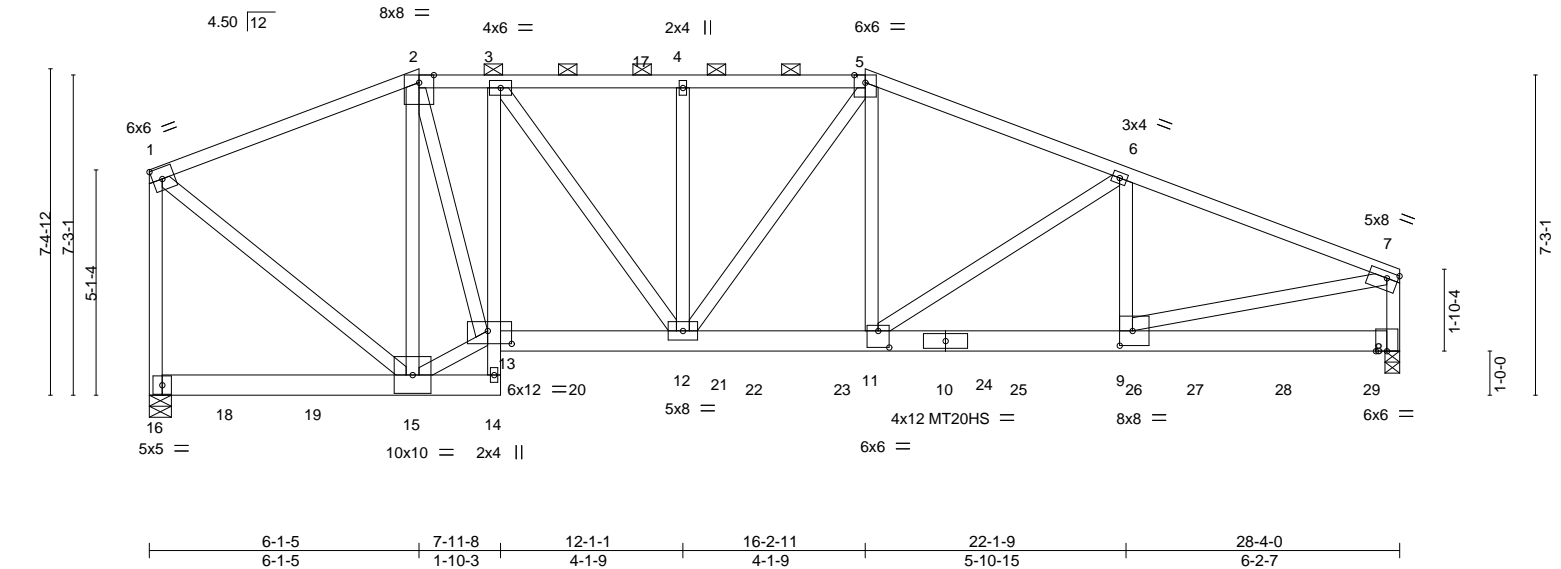


Plate Offsets (X,Y)-- [7:0-3-0,0-1-12], [9:0-3-8,0-4-0], [11:0-3-0,0-4-8], [13:0-6-8,0-3-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.15 9-11 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.32 9-11 >999 180	MT20HS	148/108
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.97	Horz(CT)	0.09 8 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS				Weight: 338 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2 \*Except\*  
5-7: 2x4 SPF 1650F 1.5E  
BOT CHORD 2x6 SPF 2100F 1.8E \*Except\*  
14-16: 2x6 SPF No.2, 3-14: 2x4 SPF No.2  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-7-12 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-11 max.): 2-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 8=0-4-0, 16=0-6-0  
Max Horz 16=-148(LC 6)  
Max Uplift 8=-789(LC 5), 16=-769(LC 4)  
Max Grav 8=6387(LC 1), 16=6144(LC 1)

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

TOP CHORD 1-2=-4809/659, 2-3=-5958/823, 3-4=-7429/1018, 4-5=-7433/1020, 5-6=-7968/1082,  
6-7=-8728/1115, 1-16=-5457/715, 7-8=-5218/686  
BOT CHORD 14-15=-45/325, 3-13=-2354/345, 12-13=-701/6005, 11-12=-903/7341, 9-11=-1018/8085,  
8-9=-73/448  
WEBS 1-15=-706/5648, 2-15=-3718/464, 13-15=-534/4762, 2-13=-653/5274, 5-11=-306/2250,  
6-11=-841/159, 6-9=-307/370, 7-9=-974/7875, 4-12=-521/127, 5-12=-22/322,  
3-12=-344/2454

#### NOTES-

- 2-ply truss to be connected together with 10d (0.120"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-4-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 8, 16 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=789, 16=769.

Continued on page 2



December 4, 2020

**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 2552987	Truss C08	Truss Type HIP GIRDER	Qty 1	Ply 2	Summit/19 Woodside Job Reference (optional)	I43853171
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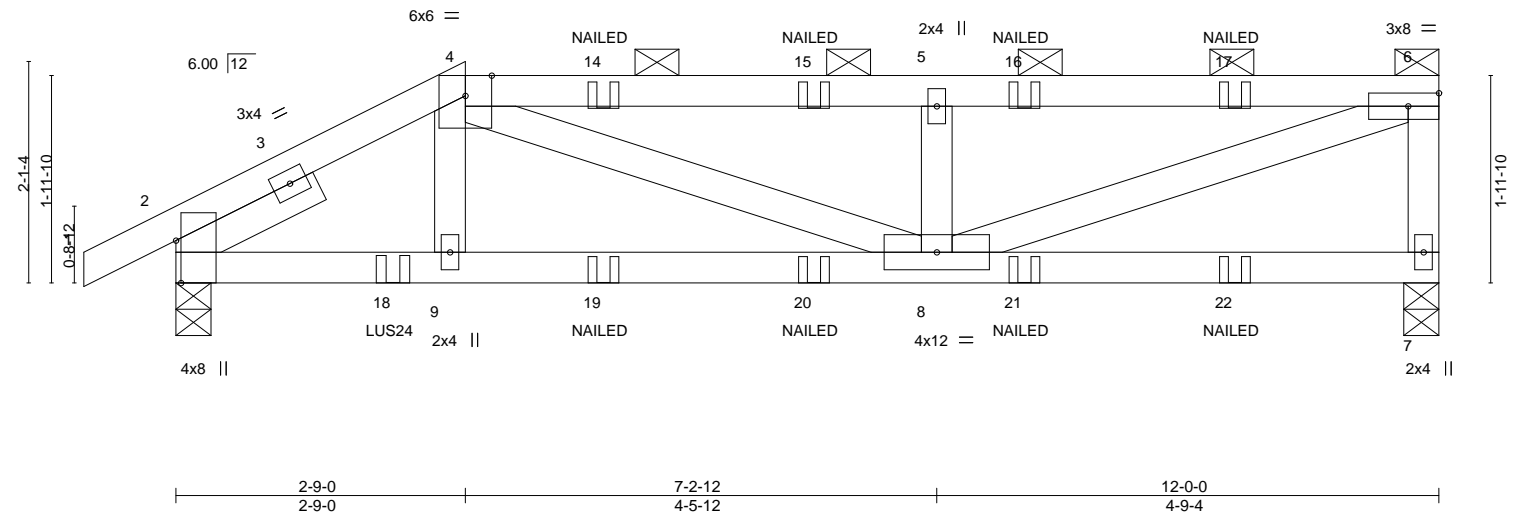
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:35 2020 Page 2  
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- NOTES-**
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 705 lb down and 89 lb up at 1-8-12, 752 lb down and 105 lb up at 3-8-12, 705 lb down and 138 lb up at 5-8-12, 712 lb down and 78 lb up at 7-9-12, 671 lb down and 93 lb up at 9-8-12, 671 lb down and 93 lb up at 11-8-12, 671 lb down and 93 lb up at 13-8-12, 671 lb down and 93 lb up at 15-8-12, 667 lb down and 144 lb up at 17-8-12, 647 lb down and 109 lb up at 19-8-12, 643 lb down and 80 lb up at 21-8-12, 658 lb down and 82 lb up at 23-8-12, and 658 lb down and 89 lb up at 25-8-12, and 663 lb down and 88 lb up at 27-8-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
  - Uniform Loads (plf)
    - Vert: 1-2=-90, 2-5=-90, 5-7=-90, 14-16=-20, 8-13=-20
  - Concentrated Loads (lb)
    - Vert: 14=-712(F) 15=-705(F) 18=-705(F) 19=-705(F) 20=-671(F) 21=-671(F) 22=-671(F) 23=-671(F) 24=-667(F) 25=-647(F) 26=-643(F) 27=-658(F) 28=-658(F) 29=-663(F)

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:36 2020 Page 1  
 ID:wH4RYhEsTNeUP2dXvOf1syQY8e-Y?9fyAYLc9gKCoyB5i5CwGFFarHuXWDdYQOeBHyCgLf  
 -0-10-8 2-9-0 7-2-12 12-0-0  
 0-10-8 2-9-0 4-5-12 4-9-4  
 Scale = 1:21.9



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.53	Vert(LL) -0.05 8-9 >999 240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.68	Vert(CT) -0.11 8-9 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.44	Horz(CT) 0.01 7 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS		Weight: 46 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

<b>BRACING- TOP CHORD</b>	Structural wood sheathing directly applied or 4-5-1 oc purlins, except end verticals, and 2-0-0 oc purlins (3-10-8 max.): 4-6.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 7-7-9 oc bracing.

**REACTIONS.** (size) 7=0-4-0, 2=0-4-0  
 Max Horz 2=65(LC 7)  
 Max Uplift 7=167(LC 5), 2=-416(LC 8)  
 Max Grav 7=916(LC 1), 2=1084(LC 38)

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

TOP CHORD	2-4=-1481/558, 4-5=-1786/366, 5-6=-1783/365, 6-7=-838/193
BOT CHORD	2-9=-531/1269, 8-9=-512/1239
WEBS	4-9=-233/414, 4-8=-75/627, 5-8=-632/186, 6-8=-385/1803

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDDL=6.0psf; BCDL=6.0psf; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=167, 2=416.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent at 2-0-12 from the left end to connect truss(es) to front face of bottom chord.
- 10) Fill all nail holes where hanger is in contact with lumber.
- 11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 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

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-4=-90, 4-6=-90, 7-10=-20



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Continued on page 2



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853172
2552987	D01	HALF HIP GIRDER	1	1	Job Reference (optional)	

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 14=-57(F) 15=-57(F) 16=-57(F) 17=-57(F) 18=-197(F) 19=-41(F) 20=-41(F) 21=-41(F) 22=-41(F)

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853173
2552987	D02	HALF HIP	1	1		
Job Reference (optional)						

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

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-0-10-8	4-0-0	7-10-4	12-0-0
0-10-8	4-0-0	3-10-4	4-1-12

Scale = 1:21.7

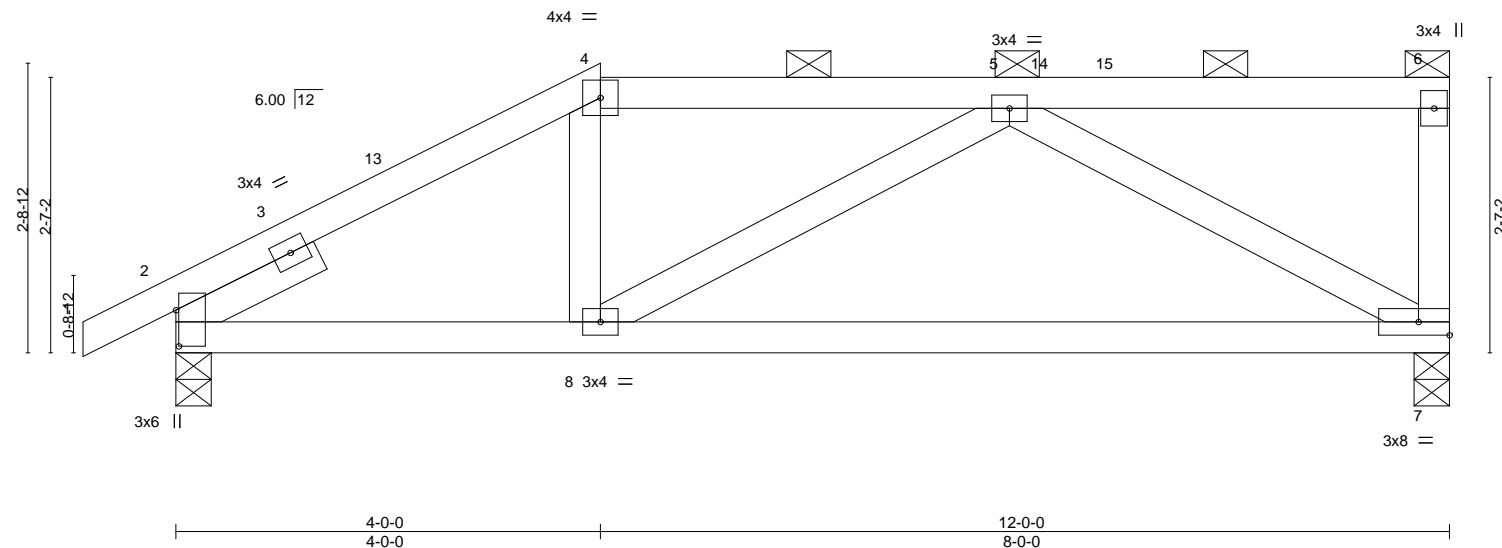


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5]		4-0-0		12-0-0	
		4-0-0		8-0-0	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc) l/defl L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.29	Vert(LL)	-0.10 7-8 >999 240
TCDL 20.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	-0.22 7-8 >651 180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.31	Horz(CT)	0.01 7 n/a n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS		
				<b>PLATES</b>	<b>GRIP</b>
				MT20	197/144
				Weight: 46 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 7=0-4-0  
 Max Horz 2=88(LC 11)  
 Max Uplift 2=-47(LC 12), 7=-73(LC 9)  
 Max Grav 2=734(LC 1), 7=649(LC 1)

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

TOP CHORD 2-4=-922/146, 4-5=-769/159  
 BOT CHORD 2-8=-175/774, 7-8=-194/766  
 WEBS 5-7=-810/207

#### 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=6.0psf; 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 4-0-0, Exterior(2R) 4-0-0 to 8-2-15, Interior(1) 8-2-15 to 11-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.
- 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.



December 4,2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	143853174
2552987	D03	HALF HIP	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:38 2020 Page 1

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Job Reference (optional)

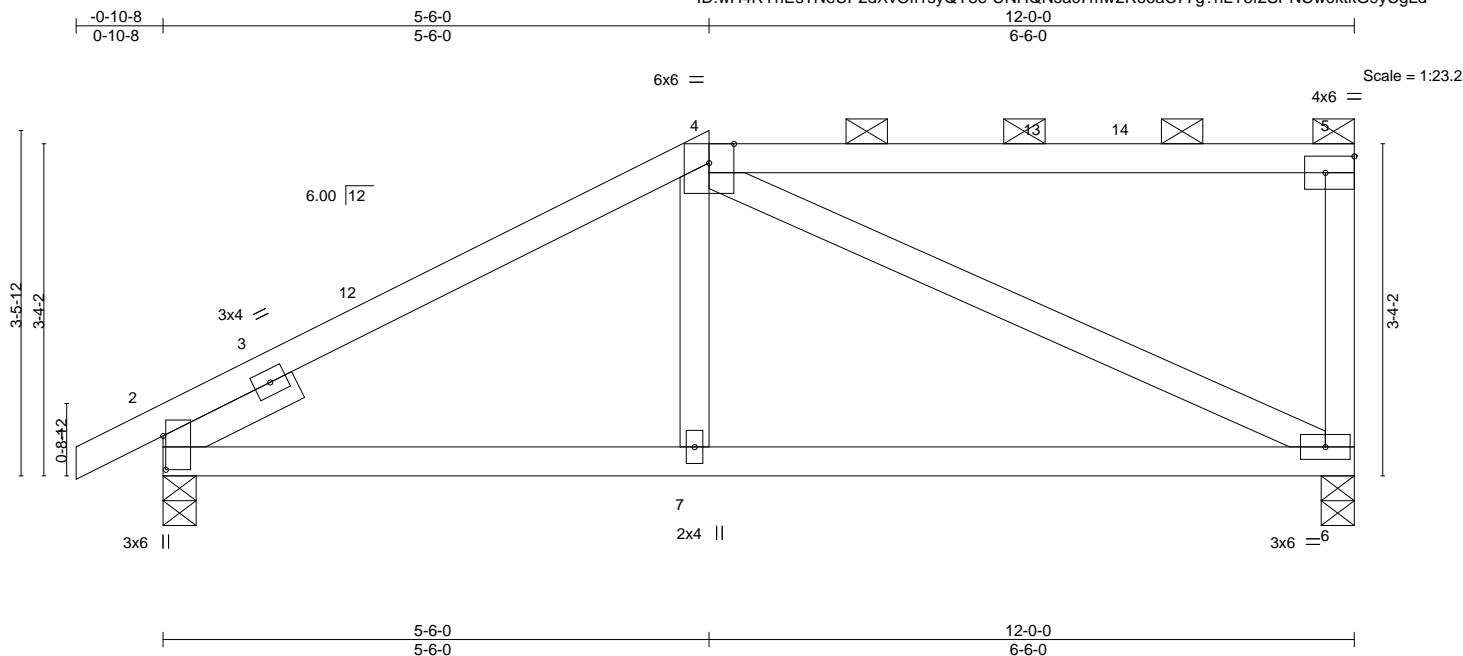


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [5:Edge,0-2-0]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.05	6-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.09	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 45 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 6=0-4-0  
 Max Horz 2=116(LC 11)  
 Max Uplift 2=-58(LC 12), 6=-71(LC 9)  
 Max Grav 2=734(LC 1), 6=649(LC 1)

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

TOP CHORD 2-4=-851/150, 5-6=-292/96  
 BOT CHORD 2-7=-207/701, 6-7=-210/695  
 WEBS 4-6=-680/187

#### 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; BCCL=6.0psf; 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 5-6-0, Exterior(2R) 5-6-0 to 9-8-15, Interior(1) 9-8-15 to 11-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job 2552987	Truss D04	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside	I43853175
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:39 2020 Page 1
Job Reference (optional)						ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-yaroaCbEu42v3FhmmqevYvtla3Ma8se3FOclocyCgLC

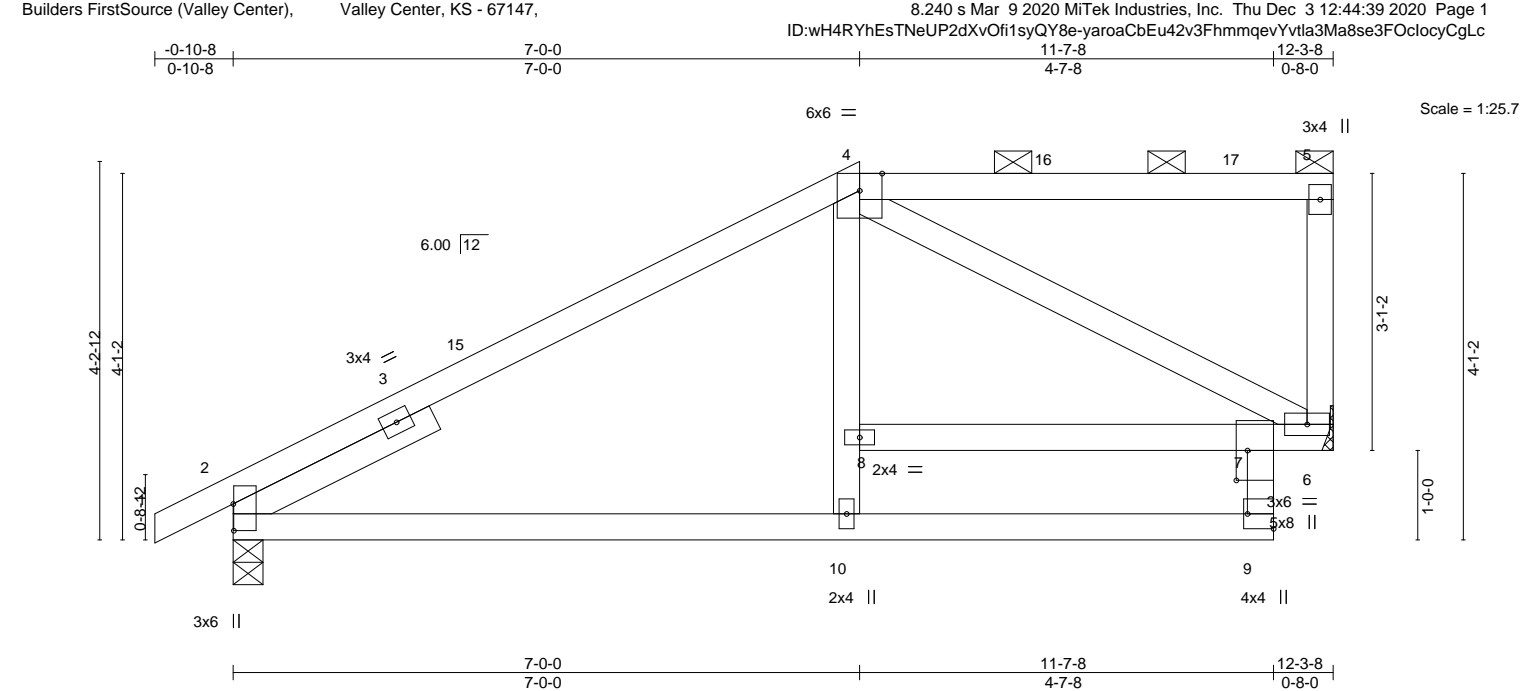


Plate Offsets (X, Y)-- [2:0-3-9,0-0-1], [7:0-4-0,0-1-8], [9:Edge,0-3-8]		LOADING (psf)		SPACING-- 2-0-0		CSI.		DEFL.		PLATES		GRIP	
TCLL 25.0		Plate Grip DOL 1.15		TC 0.54		in (loc) l/defl L/d		MT20		197/144			
TCDL 20.0		Lumber DOL 1.15		BC 0.46		Vert(LL) -0.06 10-13 >999 240							
BCLL 0.0 *		Rep Stress Incr YES		WB 0.46		Vert(CT) -0.16 10-13 >936 180							
BCDL 10.0		Code IRC2018/TPI2014		Matrix-AS		Horz(CT) 0.06 6 n/a n/a							
										Weight: 53 lb		FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and
BOT CHORD	2x4 SPF No.2	BOT CHORD	2-0-0 oc purlins (6-0-0 max.): 4-5.
WEBS	2x4 SPF No.2		Rigid ceiling directly applied.
SLIDER	Left 2x4 SPF No.2 2-6-0		

<b>REACTIONS.</b> (size) 6=Mechanical, 2=0-4-0	
Max Horz 2=125(LC 9)	
Max Uplift 6=69(LC 9), 2=65(LC 12)	
Max Grav 6=665(LC 1), 2=750(LC 1)	

<b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-4=-692/128
BOT CHORD	2-10=-180/588, 9-10=-107/393, 7-8=-102/259, 6-7=-209/652
WEBS	4-6=-732/208

- 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=6.0psf; 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 7-0-0, Exterior(2R) 7-0-0 to 11-2-15, Interior(1) 11-2-15 to 12-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) 6, 2.
  - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss D05	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853176
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:40 2020 Page 1

ID:wh4RYhEsTNeUP2dXvOfi1syQY8e-QmPAnYcsfOAmgPGyKX9846Q?XTJ4tMWDT2MrK2yCgLB

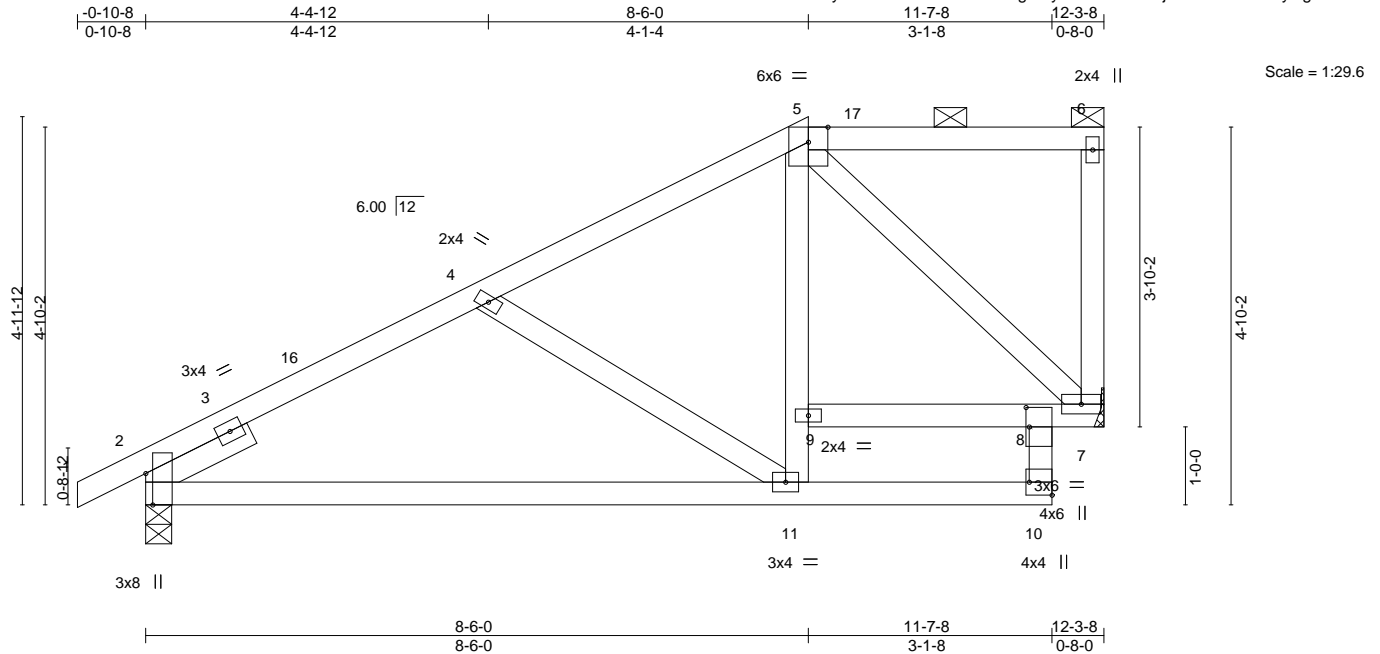


Plate Offsets (X,Y)-- [2:0-4-13,Edge], [8:0-3-0,0-0-8], [10:Edge,0-3-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	-0.09 11-14	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.45	Vert(CT)	-0.19 11-14	>781	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.30	Horz(CT)	0.04 7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 56 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-0  
Max Horz 2=153(LC 9)  
Max Uplift 7=-65(LC 9), 2=-69(LC 12)  
Max Grav 7=665(LC 1), 2=750(LC 1)

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

TOP CHORD 2-4=-829/151, 4-5=-537/109  
BOT CHORD 2-11=-276/736, 10-11=-103/306, 7-8=-147/423  
WEBS 4-11=-389/164, 9-11=0/352, 5-9=0/325, 5-7=-586/153

#### 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=6.0psf; 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 8-6-0, Exterior(2E) 8-6-0 to 12-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 7, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss D06	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853177
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:40 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOf1syQY8e-QmPANycsfOAmgPGyKX9846QzbTg0tMIDT2MrK2yCgLB

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

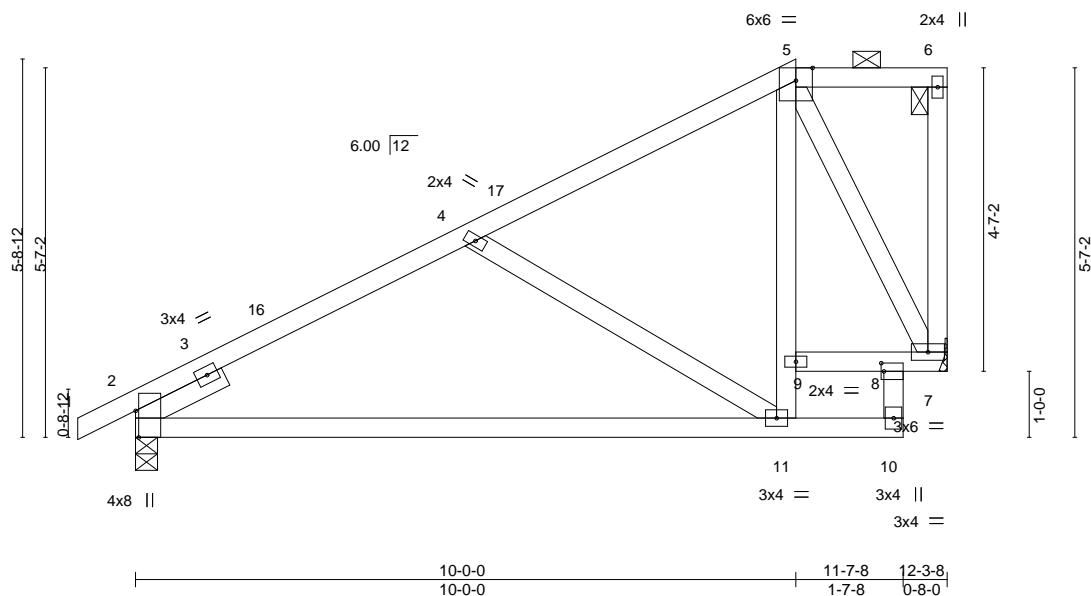


Plate Offsets (X,Y)-- [2:0-4-13,Edge], [8:0-0-8,0-1-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.16 11-14 >939 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.32 11-14 >456 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.02 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 57 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-0  
Max Horz 2=181(LC 9)  
Max Uplift 7=-68(LC 12), 2=-69(LC 12)  
Max Grav 7=665(LC 1), 2=750(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-798/145, 4-5=-408/89  
BOT CHORD 2-11=-266/705, 7-8=-106/268  
WEBS 4-11=-509/192, 9-11=0/499, 5-9=-1/427, 5-7=-605/138

#### 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=6.0psf; 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 10-0-0, Exterior(2E) 10-0-0 to 12-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 7, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss D07	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside	I43853178
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:41 2020 Page 1
Job Reference (optional)						ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-uyyY?tcUQhldlZr8tFgNdKz8cs2gclMii5PtUyCgLa

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

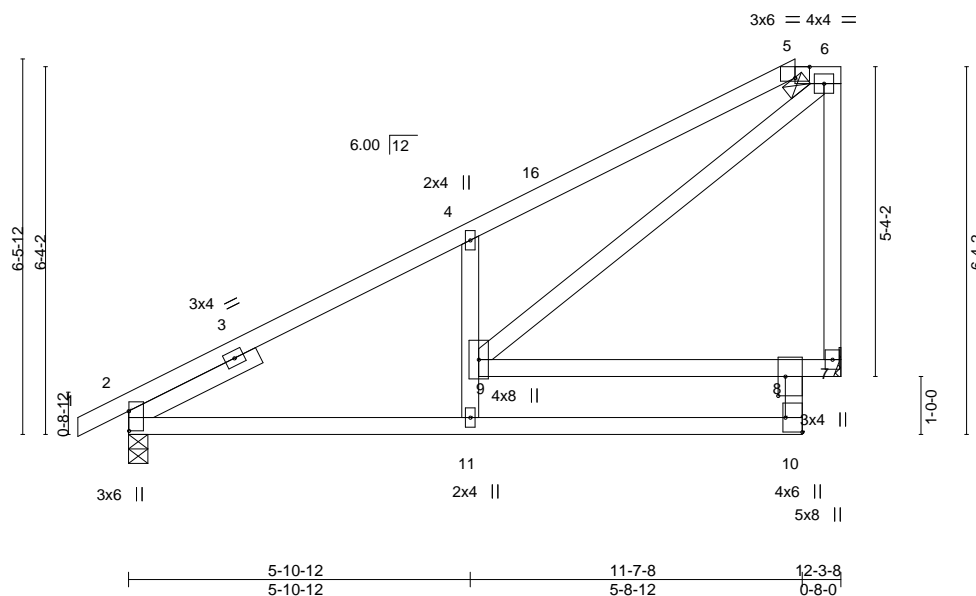


Plate Offsets (X,Y)--		[2:0-4-1,0-0-1], [5:0-3-0,Edge], [8:0-4-0,0-1-8], [10:Edge,0-3-8]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.38	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.49	Vert(LL) -0.05 11-14 >999 240
BCLL 0.0 *	Rep Stress Incr YES	WB 0.55	Vert(CT) -0.11 11-14 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.06 7 n/a n/a
		Weight: 59 lb FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 7=Mechanical, 2=0-4-0  
Max Horz 2=209(LC 9)  
Max Uplift 7=-96(LC 12), 2=-65(LC 12)  
Max Grav 7=665(LC 25), 2=750(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-745/103, 4-5=-976/221, 5-6=-760/227, 6-7=-543/221  
BOT CHORD 2-11=-221/666, 10-11=-94/421, 8-9=-429/122  
WEBS 4-9=-573/272, 6-9=-280/999

#### 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=6.0psf; 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 11-6-0, Exterior(2E) 11-6-0 to 12-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 7, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853179
2552987	D08	JACK-CLOSED	5	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:42 2020 Page 1

ID: wH4RYhEsTNeUP2dXvOfi1syQY8e-M9WxCDD6B?QUwJQLRyCc9XVGiGNQLAmWxMryPwyCgLLZ

Job Reference (optional)

0-10-8 5-11-8 11-7-8 12-3-8  
0-10-8 5-11-8 5-8-0 0-8-0

Scale = 1:38.4

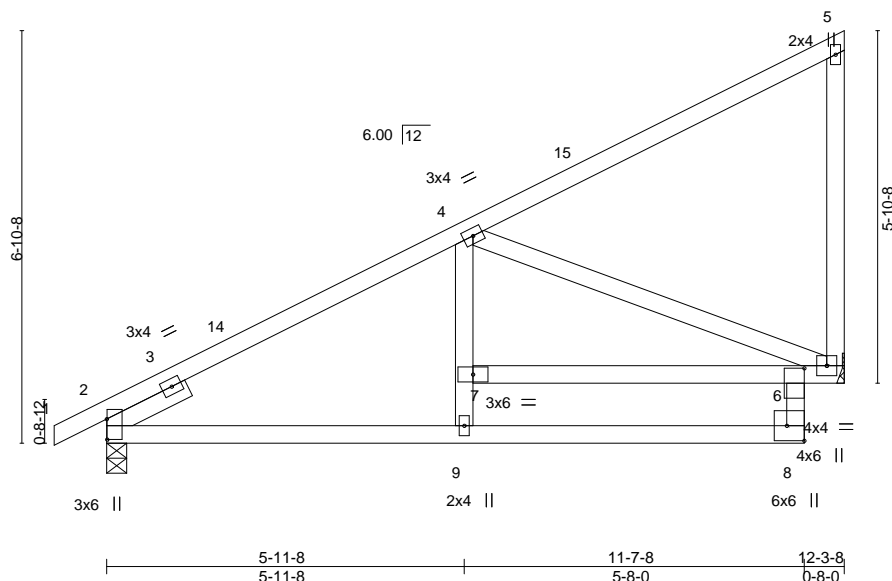


Plate Offsets (X,Y)-- [2:0-4-1,0-0-1], [6:0-0-8,0-4-8], [8:Edge,0-3-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.55	Vert(LL)	-0.06 6-7 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.11 9-12 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.08 6 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 57 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 6=Mechanical  
Max Horz 2=202(LC 12)  
Max Uplift 2=-9(LC 12), 6=-27(LC 12)  
Max Grav 2=781(LC 1), 6=744(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-846/0  
BOT CHORD 2-9=-134/730, 8-9=-31/445, 6-8=-4/350, 6-7=-145/403  
WEBS 4-7=0/289, 4-6=-910/190

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 12-1-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853180
2552987	D09	JACK-CLOSED	3	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:43 2020 Page 1

ID: wH4RYhEsTNeUP2dXvOfi1syQY8e-qL4JQZekyJLYt?X?gjr12TEgmy4f1f90aVxNyCgLY

0-10-8 6-1-12 12-3-8  
0-10-8 6-1-12 6-1-12

Scale = 1:38.3

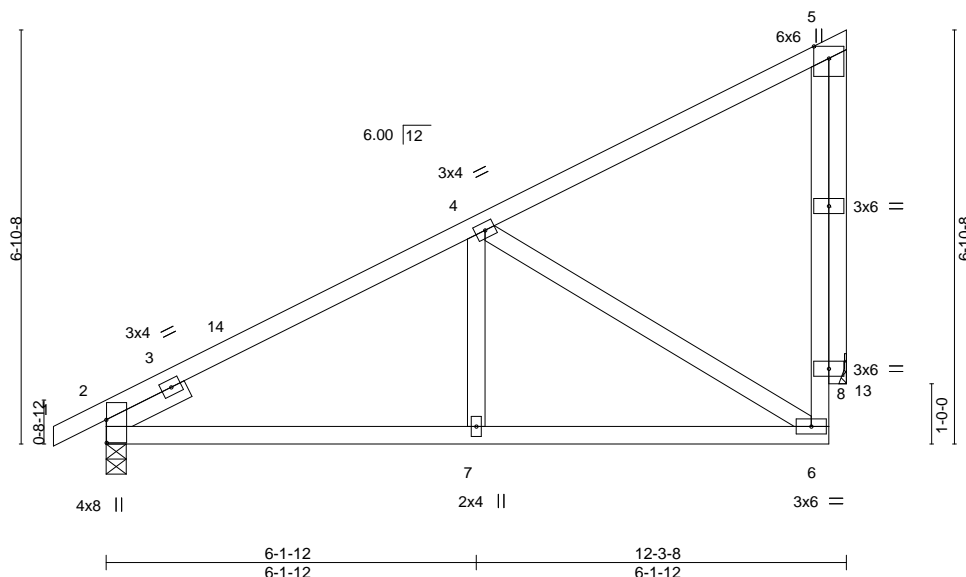


Plate Offsets (X,Y)-- [2-0-4-9,0-0-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.44	Vert(LL) -0.03	6-7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.31	Vert(CT) -0.05	6-7	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.57	Horz(CT) 0.02	13	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 57 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  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 13=Mechanical  
Max Horz 2=187(LC 12)  
Max Uplift 2=-31(LC 12), 13=-72(LC 12)  
Max Grav 2=754(LC 1), 13=629(LC 1)

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

TOP CHORD 2-4=-830/107, 6-8=-45/437, 5-8=-45/437  
BOT CHORD 2-7=-144/686, 6-7=-144/686  
WEBS 4-7=0/252, 4-6=-732/146, 5-13=631/115

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 11-10-4 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 13.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017





Job 2552987	Truss D11	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853182
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:45 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-nkC3rF?Uwo2nA8w65JnA7qSUSNYc0ydK3c0FyCgLLW

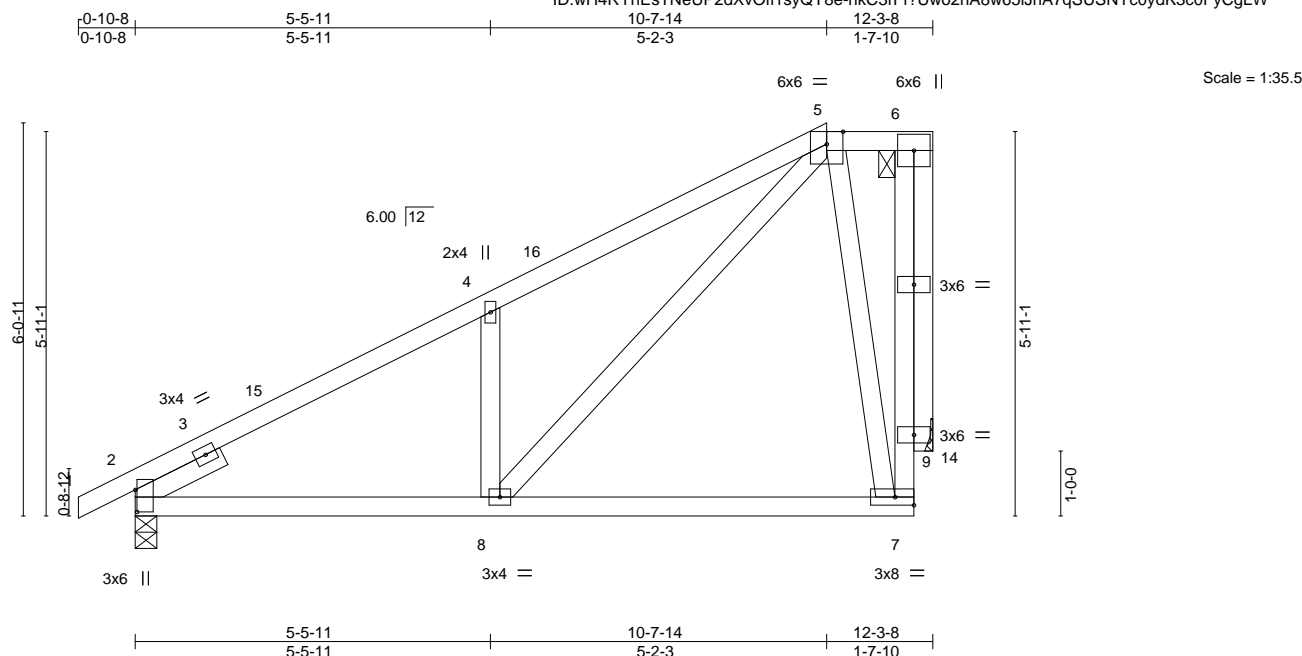


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	L/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	-0.04	7-8	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.10	7-8	>999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	-0.01	14	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>		<b>GRIP</b>	
				MT20		197/144	
				Weight: 61 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  
 SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 14=Mechanical  
 Max Horz 2=190(LC 12)  
 Max Uplift 2=46(LC 12), 14=102(LC 12)  
 Max Grav 2=754(LC 1), 14=629(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-4=-877/32, 4-5=-910/152, 7-9=-196/649, 6-9=-196/649  
 BOT CHORD 2-8=-197/719  
 WEBS 4-8=-472/210, 5-8=-187/804, 5-7=-599/236, 6-14=-631/155

#### 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=6.0psf; 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 10-7-14, Exterior(2E) 10-7-14 to 11-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 2 except (jt=lb) 14=102.
- This truss 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.



December 4, 2020

**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 2552987	Truss D13	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853184
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:47 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-j6KqFxf0X3m0U1IEVnnsbCBth7C0VRF4eYj48yCgLU

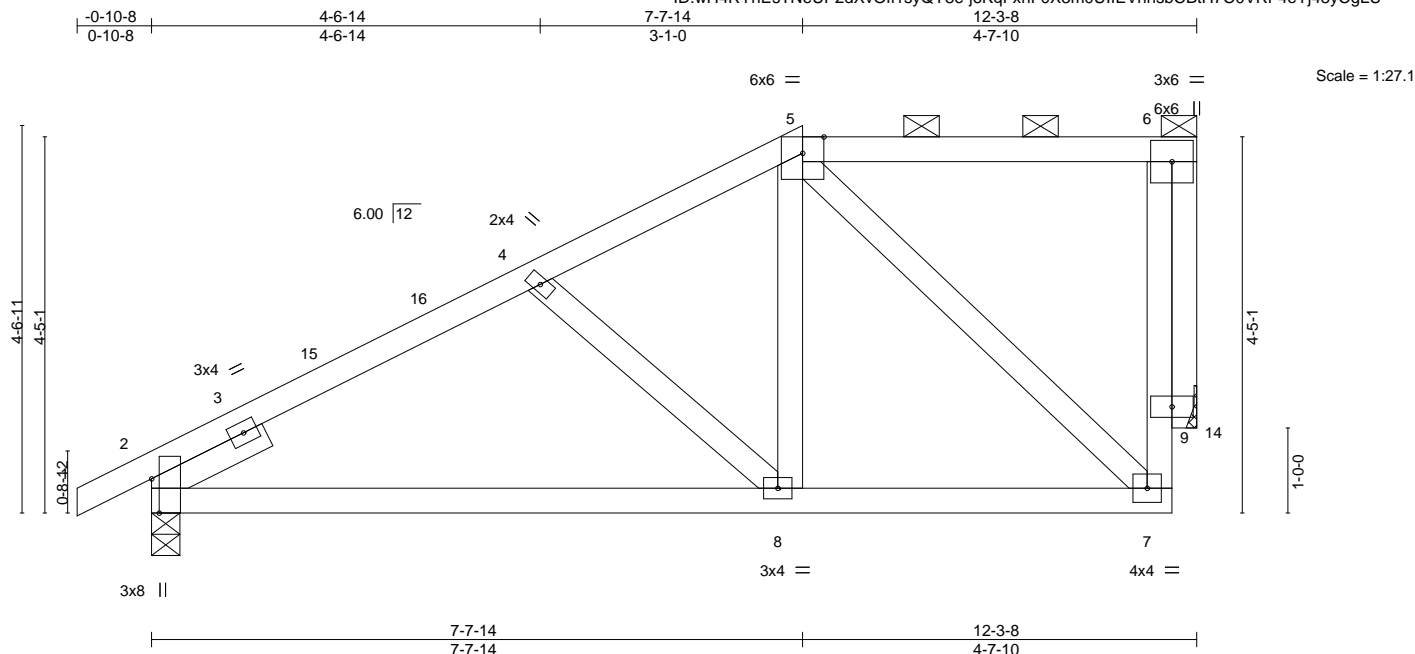


Plate Offsets (X,Y)--		[2:0-4-13,Edge]									
<b>LOADING</b>	(psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	-0.05 8-12	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.35	Vert(CT)	-0.11 8-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.02 14	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 55 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  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 14=Mechanical  
Max Horz 2=135(LC 12)  
Max Uplift 2=56(LC 12), 14=54(LC 9)  
Max Grav 2=754(LC 1), 14=629(LC 25)

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

TOP CHORD 2-4=-825/123, 4-5=-617/85, 7-9=-73/441, 6-9=-73/441  
BOT CHORD 2-8=-228/721, 7-8=-119/489  
WEBS 5-8=-14/357, 5-7=-570/123, 4-8=-292/144, 6-14=-635/131

#### 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=6.0psf; 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 7-7-14, Exterior(2E) 7-7-14 to 11-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 2, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss D14	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853185
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:48 2020 Page 1  
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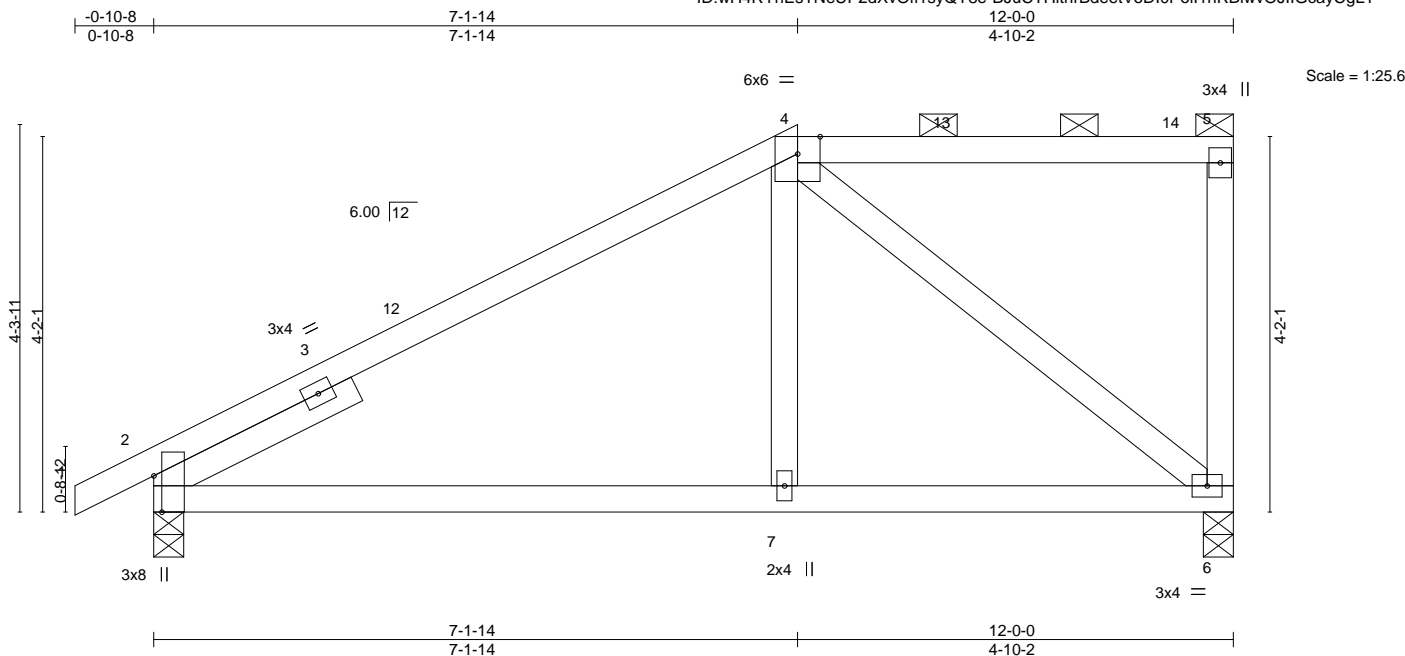


Plate Offsets (X,Y)-- [2:0-4-13,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.56	Vert(LL)	0.06	7-10	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.13	7-10	>999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.03	2	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 47 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 6=0-4-0  
Max Horz 2=147(LC 11)  
Max Uplift 2=-66(LC 12), 6=-68(LC 9)  
Max Grav 2=734(LC 1), 6=649(LC 1)

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

TOP CHORD 2-4=-661/128  
BOT CHORD 2-7=-200/563, 6-7=-202/556  
WEBS 4-7=0/279, 4-6=-702/211

#### 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=6.0psf; 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 7-1-14, Exterior(2R) 7-1-14 to 11-4-13, Interior(1) 11-4-13 to 11-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020

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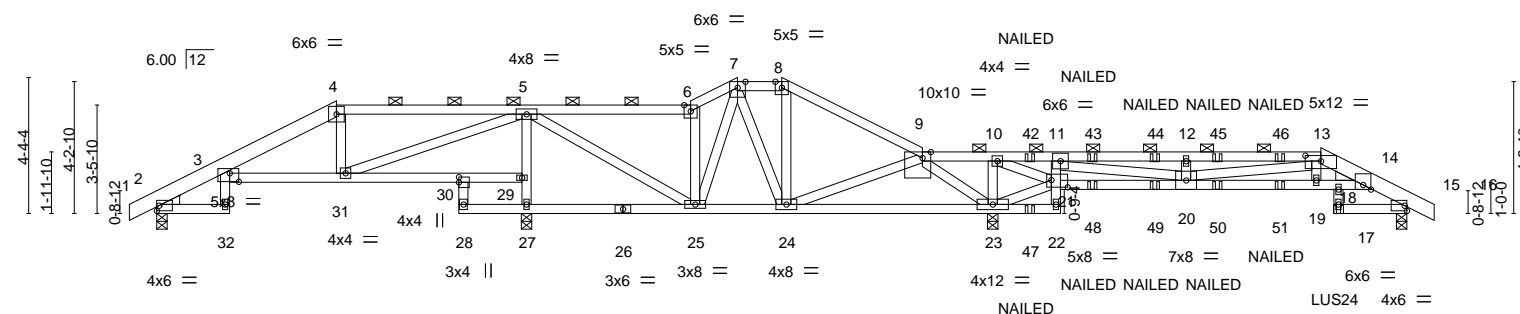
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:51 2020 Page 1  
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 0-10-8 2-4-0 | 5-9-0 | 9-8-0 | 11-10-0 | 13-4-8 | 17-1-0 | 18-7-0 | 20-0-0 | 24-6-0 | 26-9-0 | 28-11-0 | 32-11-4 | 37-3-0 | 37-6-0 | 40-0-0 | 40-10-8  
 0:10-8 2-4-0 | 3-5-0 | 3-11-0 | 2-2-0 | 1-6-8 | 3-8-8 | 1-6-0 | 1-5-0 | 4-6-0 | 2-3-0 | 2-2-0 | 4-0-4 | 4-3-12 | 0-5-0 | 2-4-0 | 0:10-8  
 Scale = 1:73.7



	2-4-0	5-9-0	9-8-0	11-10-0	17-1-0	18-7-0	20-0-0	24-6-0	26-9-0	28-11-0	32-11-4	33-3-8	37-3-0	37-8-0	40-0-0
	2-4-0	3-5-0	3-11-0	2-2-0	5-3-0	1-6-0	1-5-0	4-6-0	2-3-0	2-2-0	4-0-4	0-4-4	3-11-8	0-5-0	2-4-0
Plate Offsets (X,Y)--	[3-0-3-8,0-3-4], [9-0-3-3,Edge], [13-0-6-0,0-2-2], [21-0-6-4,0-2-12], [30-0-2-0,0-0-0]														
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0				<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d						<b>PLATES GRIP</b>			
TCLL 25.0	Plate Grip DOL 1.15				TC 0.73	Vert(LL) 0.11 19-20 >999 240						MT20 197/144			
TCDL 20.0	Lumber DOL 1.15				BC 0.75	Vert(CT) -0.21 19-20 >741 180									
BCLL 0.0 *	Rep Stress Incr NO				WB 0.67	Horz(CT) 0.13 15 n/a n/a									
BCDL 10.0	Code IRC2018/TPI2014				Matrix-MS							Weight: 176 lb FT = 20%			

LUMBER-		BRACING-	
TOP CHORD	2x4 SPF No.2 *Except* 1-4: 2x6 SPF No.2, 13-16: 2x6 SP 2400F 2.0E	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (3-4-0 max.): 4-6, 7-8, 9-13.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing. Except: 6-0-0 oc bracing: 18-19
WEBS	2x4 SPF No.2		
WEDGE			
	Left: 2x4 SP No.3, Right: 2x4 SP No.3		

**REACTIONS.** All bearings 0-4-0.  
(lb) - Max Horz 2=65(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 2 except 15=442(LC 9), 23=387(LC 9), 27=246(LC 29)  
Max Grav All reactions 250 lb or less at joint(s) except 2=589(LC 21), 15=973(LC 37), 23=2202(LC 1), 27=1527(LC 1)

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

**TOP CHORD** 3-4=-606/91, 4-5=-536/113, 5-6=-324/235, 6-7=-376/269, 7-8=-329/259, 8-9=-441/256,  
9-10=-384/1749, 10-11=-157/714, 11-12=-2202/620, 12-13=-2202/620, 13-14=-2207/928,  
14-15=-407/227

**BOT CHORD** 3-31=-68/561, 30-31=-490/80, 27-28=-271/25, 25-27=-421/63, 24-25=-127/291,  
23-24=-747/317, 11-21=-995/274, 20-21=-501/176, 19-20=-926/2247, 18-19=-901/2186,  
14-18=-901/2186

**WEBS** 4-31=-343/110, 5-25=-202/780, 6-25=-383/173, 8-24=-264/86, 9-24=-198/950,  
10-23=-583/154, 21-23=-1744/460, 10-21=-259/1134, 12-20=-422/116, 11-20=-751/2742,  
27-29=-1360/307, 5-29=-1345/312, 9-23=-1287/252, 13-19=-154/385, 13-20=-482/377,  
5-31=-131/1087

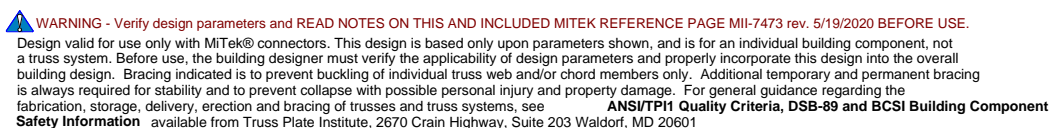
**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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 2x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 15=442, 23=387, 27=246.
- 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.

C) Graphical part 2 representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020





Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside
2552987	D15	Roof Special Girder	1	1	I43853186
Job Reference (optional)					

- NOTES-**
- 10) Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent at 37-9-12 from the left end to connect truss(es) to back face of bottom chord.
- 11) Fill all nail holes where hanger is in contact with lumber.
- 12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

- LOAD CASE(S)** Standard
- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (plf)
- Vert: 1-3=-90, 3-4=-90, 4-6=-90, 6-7=-90, 7-8=-90, 8-9=-90, 9-13=-90, 13-16=-90, 32-33=-20, 3-30=-20, 22-28=-20, 18-21=-20, 17-39=-20
- Concentrated Loads (lb)
- Vert: 18=-197(B) 42=-57(B) 43=-38(B) 44=-38(B) 45=-38(B) 46=-38(B) 47=-41(B) 48=-61(B) 49=-61(B) 50=-61(B) 51=-61(B)

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853187
2552987	D16	Roof Special	1	1		

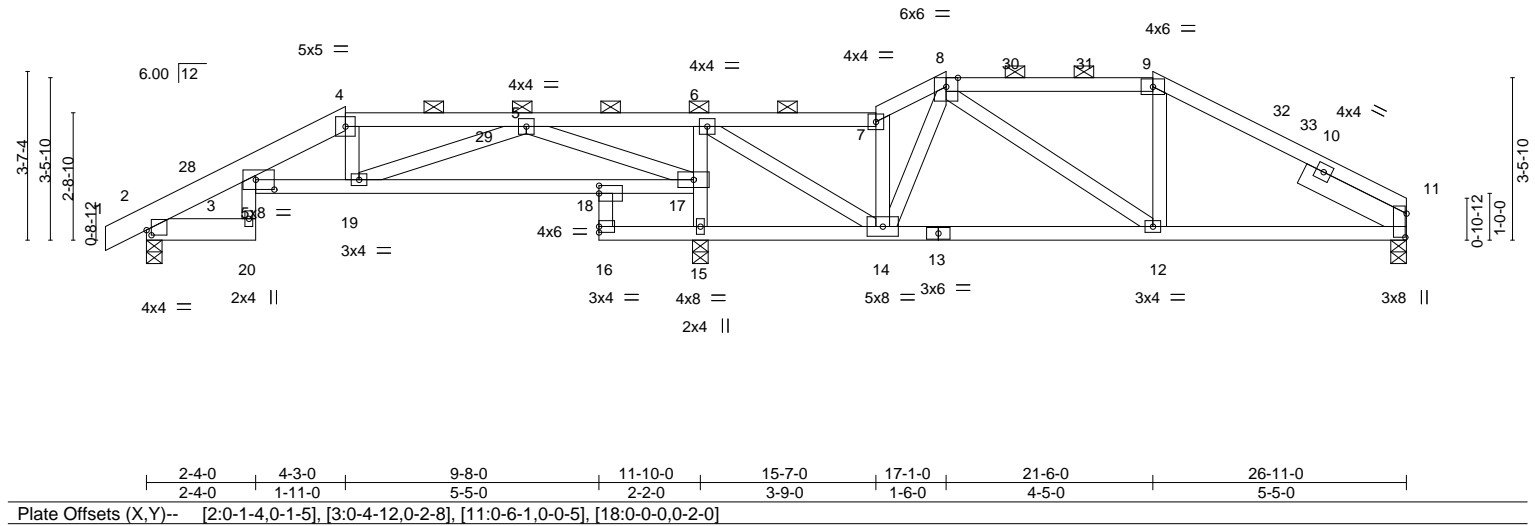
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:52 2020 Page 1

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

Scale = 1:49.2



Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853188
2552987	D17	Roof Special Girder	1	1		
Job Reference (optional)						

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:55 2020 Page 1

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

Scale = 1:49.2

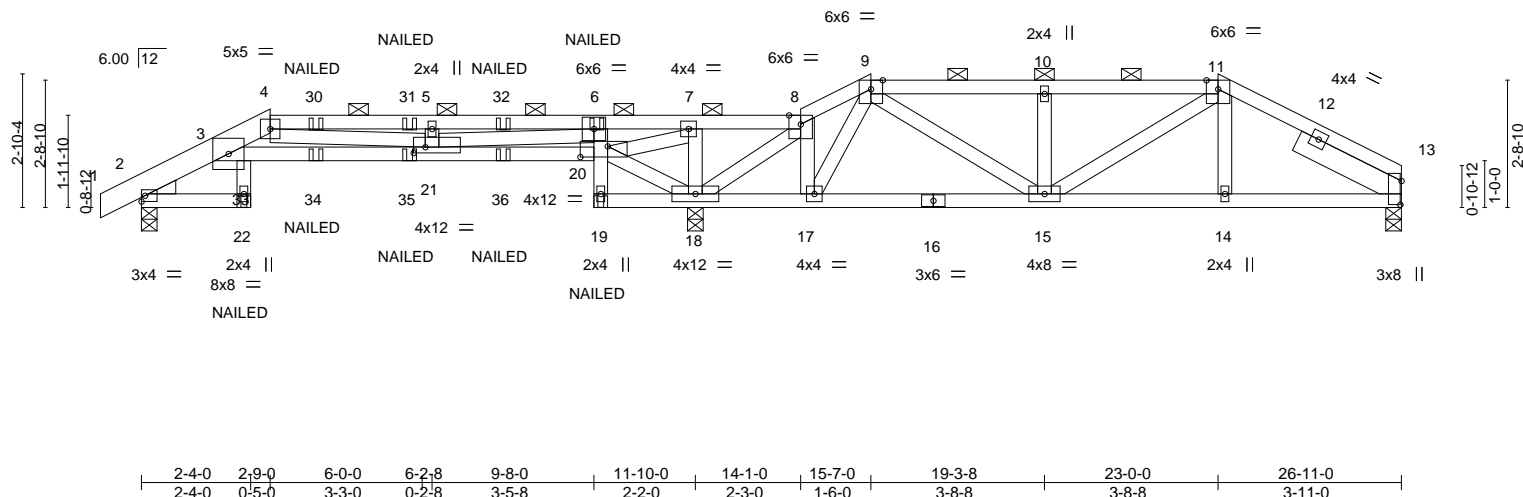


Plate Offsets (X,Y)--										[13:0-6-1,0-0-5], [20:0-7-0,0-2-12], [21:0-3-0,0-1-8]														
LOADING (psf)		SPACING-				2-0-0		CSI.		DEFL.				in (loc)		l/defl		L/d		PLATES		GRIP		
TCLL	25.0	Plate Grip DOL				1.15		TC	0.59	Vert(LL)				-0.12	3-21	>999		240		MT20	197/144			
TCDL	20.0	Lumber DOL				1.15		BC	0.75	Vert(CT)				-0.26	3-21	>539		180						
BCLL	0.0 *	Rep Stress Incr				NO		WB	0.70	Horz(CT)				0.14	13	n/a		n/a						
BCDL	10.0	Code IRC2018/TPI2014						Matrix-MS														Weight: 114 lb	FT = 20%	

LUMBER-	BRACING-
TOP CHORD	TOP CHORD
2x4 SPF No.2 *Except*	Structural wood sheathing directly applied or 5-8-5 oc purlins, except
1-4: 2x6 SP 2400F 2.0E	2-0-0 oc purlins (3-11-6 max.): 4-8, 9-11.
BOT CHORD	BOT CHORD
2x4 SPF No.2 *Except*	Rigid ceiling directly applied or 6-0-0 oc bracing.
2-22,3-20: 2x4 SPF 1650F 1.5E	
WEBS	
2x4 SPF No.2	
WEDGE	
Left: 2x4 SP No.3	
SLIDER	Right 2x6 SPF No.2 2-6-0

REACTIONS.	(size)	13=0-4-0, 2=0-4-0, 18=0-4-0
	Max Horz	2=53(LC 8)
	Max Uplift	13=-98(LC 30), 2=-125(LC 8), 18=-232(LC 4)
	Max Grav	13=625(LC 22), 2=802(LC 21), 18=2232(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-28=-274/60, 3-4=-2431/450, 4-5=-1741/322, 5-6=-1741/322, 6-7=-155/1283, 7-8=-252/1866, 8-9=-289/706, 9-10=-808/304, 10-11=-808/304, 11-13=-769/179
BOT CHORD	3-22=-51/298, 3-21=-484/2660, 20-21=-1061/126, 6-20=-931/188, 17-18=-687/246, 15-17=-347/355, 14-15=-127/659, 13-14=-124/662
WEBS	8-17=-89/1037, 9-17=-1107/162, 9-15=-89/857, 10-15=-406/116, 7-18=-350/77, 8-18=-1524/100, 5-21=-326/96, 6-21=-445/2848, 18-20=-1915/272, 7-20=-103/616, 4-21=-930/175

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 2=125, 18=232.
  - 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
  - 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).



December 4, 2020

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853188
2552987	D17	Roof Special Girder	1	1	Job Reference (optional)	

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-3=-90, 3-4=-90, 4-8=-90, 8-9=-90, 9-11=-90, 11-13=-90, 22-27=-20, 3-20=-20, 19-23=-20

Concentrated Loads (lb)

Vert: 22=-210(B) 6=-57(B) 20=-41(B) 30=-36(B) 31=-36(B) 32=-36(B) 34=-62(B) 35=-62(B) 36=-62(B)

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853189
2552987	E02	HALF HIP	1	1	Job Reference (optional)	

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

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ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-yrMD80ouulBVbtU1GuSukU4bdv8Wdb?Z9Yehv6yCgLL

-0-10-8	2-4-0	4-1-14	11-1-0	13-5-0
0-10-8	2-4-0	1-9-14	6-11-2	2-4-0

Scale = 1:24.7

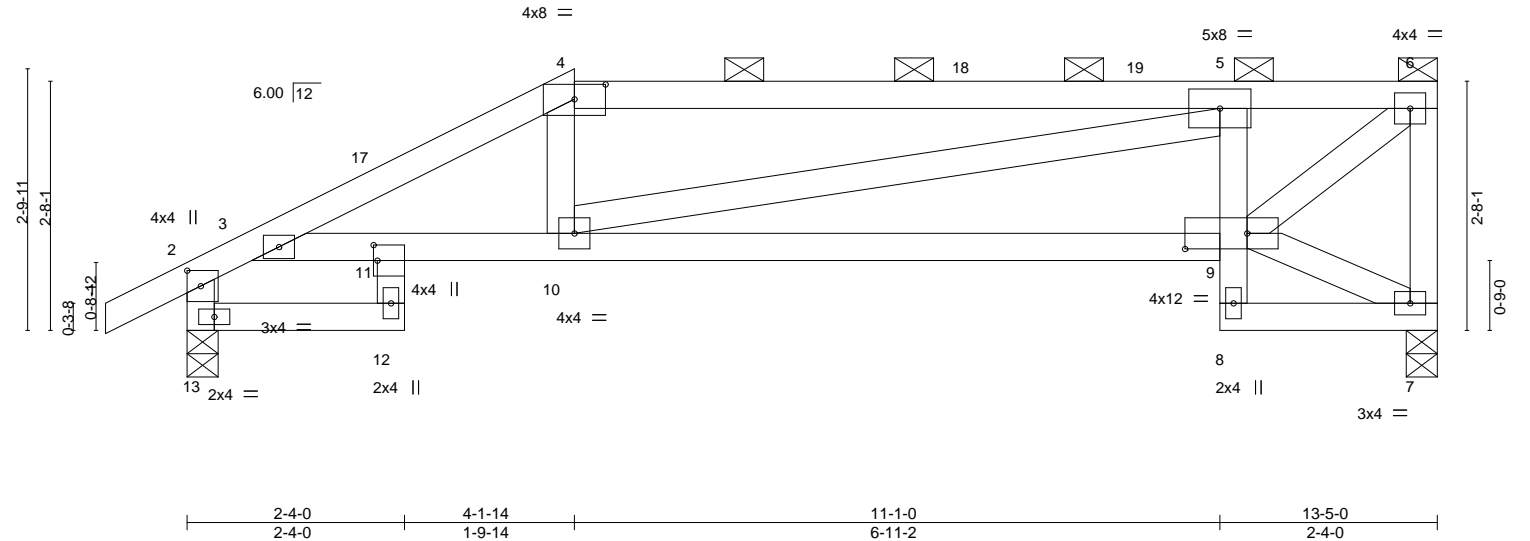


Plate Offsets (X,Y)-- [2:0-2-0,0-1-12], [4:0-4-0,0-1-15], [9:0-8-0,0-2-0], [11:0-2-0,0-0-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.07 9-10 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.16 9-10 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.05 7 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 54 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 7=0-4-0, 13=0-4-0  
Max Horz 13=96(LC 11)  
Max Uplift 7=-82(LC 9), 13=-49(LC 12)  
Max Grav 7=718(LC 1), 13=817(LC 1)

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

TOP CHORD 2-3=-529/83, 3-4=-1505/215, 4-5=-1345/234, 5-6=-834/128, 6-7=-663/112, 2-13=-808/180  
BOT CHORD 3-11=-146/1122, 10-11=-276/1355, 9-10=-181/1040, 5-9=-611/180  
WEBS 4-10=0/267, 5-10=-102/310, 6-9=-171/1067

#### 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=6.0psf; 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 4-1-14, Exterior(2R) 4-1-14 to 8-4-13, Interior(1) 8-4-13 to 13-3-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.



December 4,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853190
2552987	E03	HALF HIP	1	1		

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

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ID:WH4RYhEsTNeUP2dXvOfi1syQY8e-Q1wcMMpWfcJLD03Dpcz7GidrvJScM05jOCzFRZyCgLK



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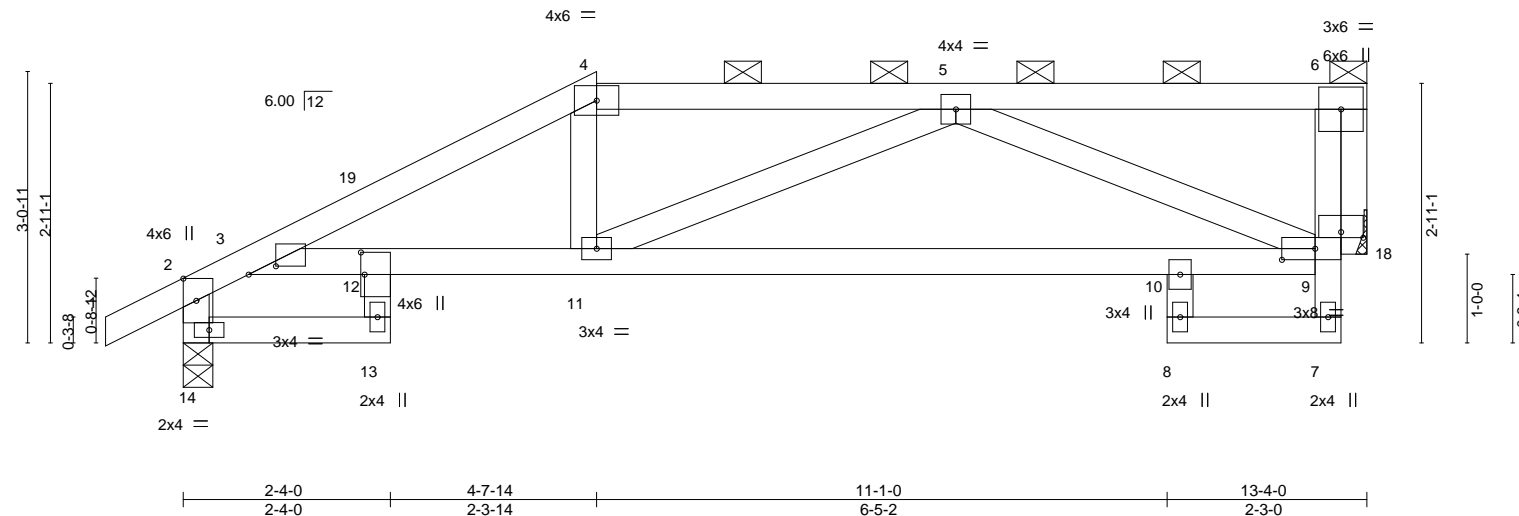


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [3:0-3-11,0-1-2], [9:0-3-0,0-0-12], [9:0-4-8,0-1-8], [12:0-3-0,0-0-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.08 10-11 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.17 10-11 >929 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.05 18 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 53 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 14=0-4-0, 18=Mechanical  
Max Horz 14=78(LC 9)  
Max Uplift 14=-50(LC 12), 18=-73(LC 9)  
Max Grav 14=817(LC 1), 18=678(LC 1)

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

TOP CHORD 2-3=-574/71, 3-4=-1381/180, 4-5=-1201/202, 5-6=-254/0, 6-9=-54/495, 2-14=-802/176  
BOT CHORD 13-14=-131/286, 3-12=-86/930, 11-12=-215/1216, 10-11=-206/1183, 9-10=-144/1206  
WEBS 4-11=0/296, 5-9=-1038/273, 6-18=-697/95

#### 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=6.0psf; 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 4-7-14, Exterior(2R) 4-7-14 to 8-8-7, Interior(1) 8-8-7 to 12-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 18.
- This truss 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.



December 4, 2020

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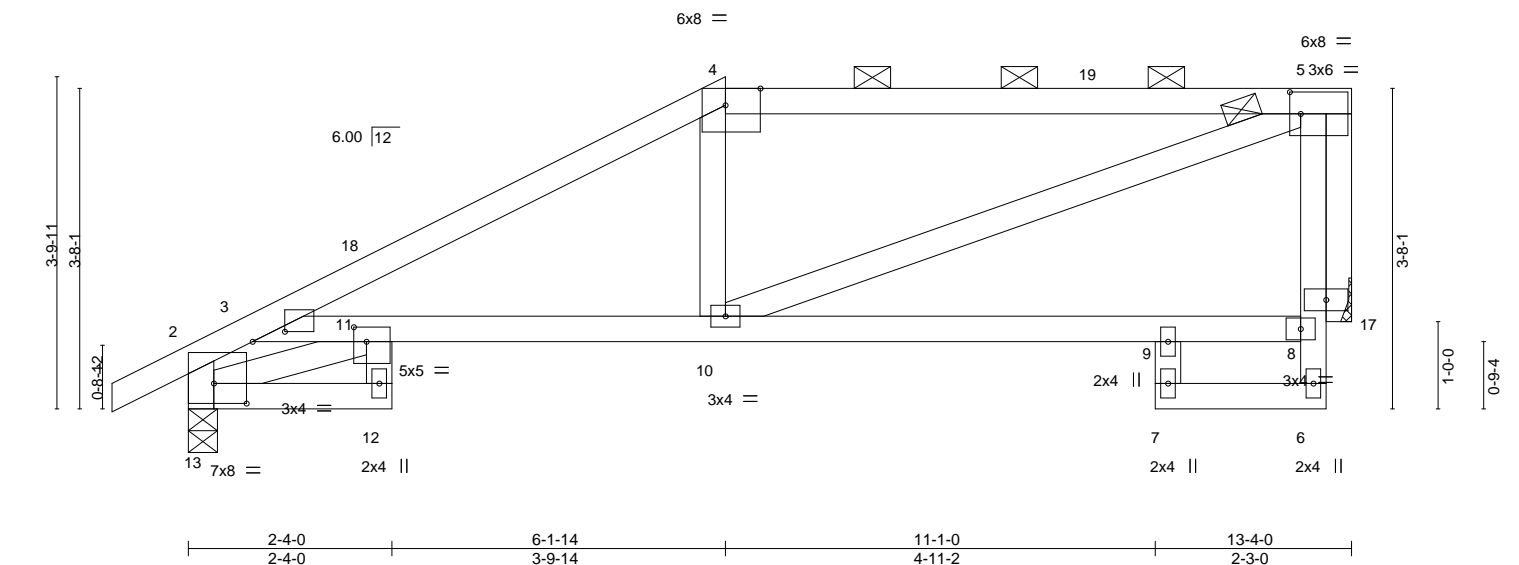


16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss E04	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside	I43853191
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:44:58 2020 Page 1
Job Reference (optional)						ID:wH4RYhEstNeUP2dXvOfi1syQY8e-uEU_Zhq8QwRCrAeQNJUMpvAyljmd5VNsCsjoz?yCgLLJ

Scale = 1:26.4



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 0.74	Vert(LL)	-0.08 10-11	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.17 10-11	>915	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.27	Horz(CT)	0.06 17	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS					Weight: 56 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-11-6 max.): 4-5.  
BOT CHORD Rigid ceiling directly applied.

#### REACTIONS.

(size) 13=0-4-0, 17=Mechanical  
Max Horz 13=101(LC 12)  
Max Uplift 13=-57(LC 12), 17=-69(LC 9)  
Max Grav 13=817(LC 1), 17=678(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-636/118, 3-4=-1185/166, 4-5=-1032/204, 2-13=-813/177  
BOT CHORD 12-13=-118/286, 3-11=-36/674, 10-11=-214/1025, 8-9=-18/270  
WEBS 5-10=-204/861, 5-17=-692/108

#### 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=6.0psf; 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 6-1-14, Exterior(2R) 6-1-14 to 10-4-13, Interior(1) 10-4-13 to 12-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13, 17.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

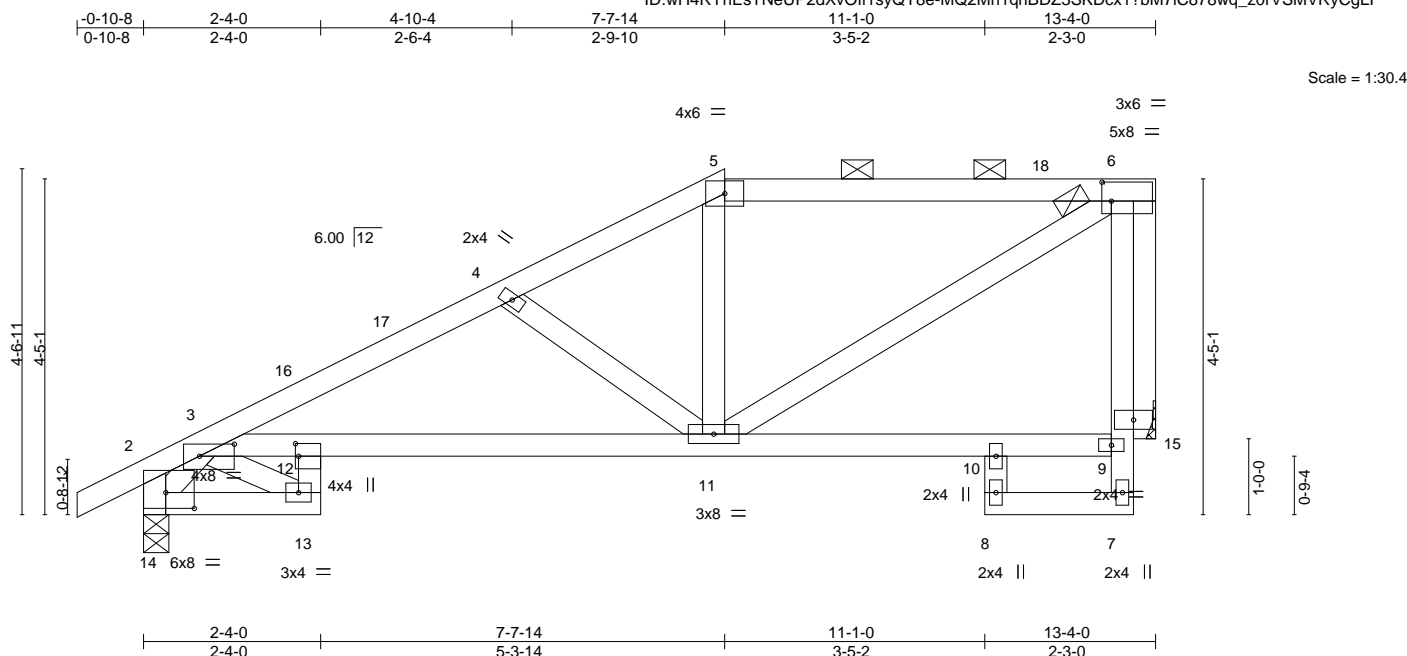


Plate Offsets (X,Y)-- [2:0-1-12,0-0-14], [3:0-5-8,0-1-15], [6:0-1-8,0-3-0], [12:0-2-0,0-0-8], [14:0-4-8,0-2-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.08 11-12 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.21 11-12 >767 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.07 15 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 62 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF 1650F 1.5E *Except* 5-6: 2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (5-9-4 max.): 5-6.
BOT CHORD	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied.
WEBS	2x4 SPF No.2		
OTHERS	2x4 SPF No.2		

**REACTIONS.** (size) 14=0-4-0, 15=Mechanical  
Max Horz 14=129(LC 12)  
Max Uplift 14=-61(LC 12), 15=-62(LC 9)  
Max Grav 14=817(LC 1), 15=678(LC 1)

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

TOP CHORD	3-4=-1215/203, 4-5=-900/141, 5-6=-759/152, 2-14=-395/89
BOT CHORD	13-14=-201/432, 3-12=-234/891, 11-12=-299/1066
WEBS	6-11=-157/739, 4-11=-380/164, 3-14=-558/82, 3-13=-300/163, 6-15=-685/120

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDD=6.0psf; BCDL=6.0psf; 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 7-7-14, Exterior(2R) 7-7-14 to 11-10-13, Interior(1) 11-10-13 to 12-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Bearing at joint(s) 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 15.
- 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.



December 4, 2020



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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss E06	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside 143853193
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:01 2020 Page 1  
ID:WH4RYhEsTNeUP2dXvOfi1syQY8e-JpA6Bjs1jrpnieN\_2S13RYoYywrJlulJpSaKyCgLG

0-10-8	2-4-0	5-5-7	9-1-14	11-1-0	13-4-0
0-10-8	2-4-0	3-1-7	3-8-7	1-11-2	2-3-0

Scale = 1:33.8

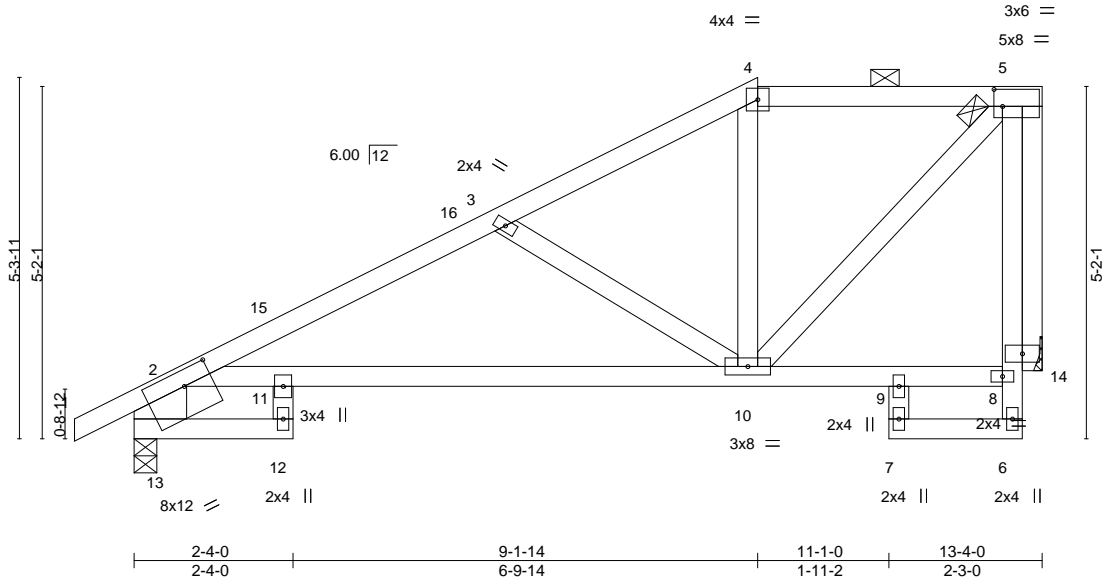


Plate Offsets (X,Y)-- [5:0-1-8,0-3-0], [13:0-4-2,0-2-1], [13:0-5-0,0-2-12]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.12 10-11 >999 240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.29 10-11 >530 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.08 14 n/a n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS				Weight: 64 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
2-13: 2x10 SP 2400F 2.0E  
OTHERS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 13=0-4-0, 14=Mechanical  
Max Horz 13=151(LC 12)  
Max Uplift 13=-58(LC 12), 14=-60(LC 12)  
Max Grav 13=827(LC 1), 14=662(LC 1)

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

TOP CHORD 2-3=-1106/174, 3-4=-682/91, 4-5=-538/114, 2-13=-807/135  
BOT CHORD 2-11=-151/818, 10-11=-292/946  
WEBS 5-10=-143/669, 3-10=-486/193, 5-14=-666/125

#### 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=6.0psf; 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 9-1-14, Exterior(2E) 9-1-14 to 12-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 13, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss E07	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853194
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:02 2020 Page 1  
ID:wH4RYhEsTNeUP2dXvOf1syQY8e-n?kUP3tfU8yeJoxBc9ZlzlKhfk821ASXTh06myCgLF

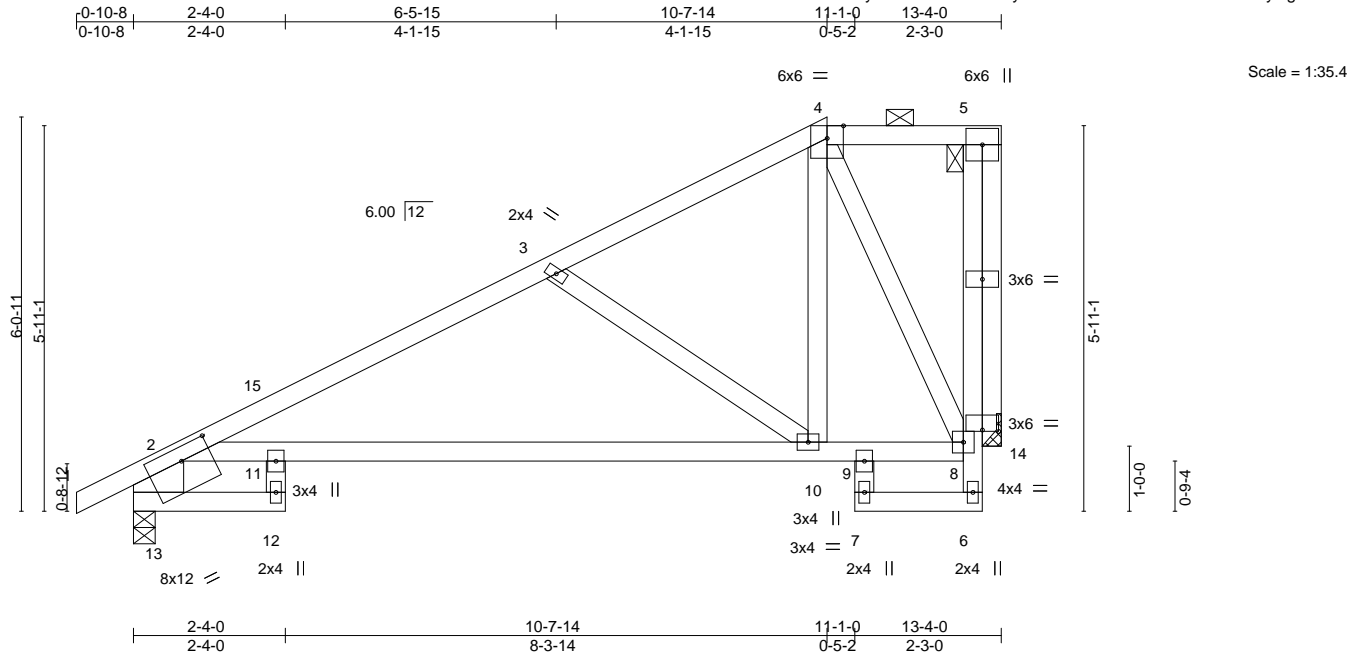


Plate Offsets (X,Y)--		[8:0-3-0,0-0-4], [13:0-5-8,0-2-8], [13:0-4-2,0-2-1]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.55	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.71	Vert(LL) -0.21 10-11 >749 240
BCLL 0.0 *	Rep Stress Incr YES	WB 0.35	Vert(CT) -0.49 10-11 >314 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS	Horz(CT) 0.11 14 n/a n/a
			<b>PLATES</b> MT20
			<b>GRIP</b> 197/144
			Weight: 67 lb FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2 \*Except\*  
2-13: 2x10 SP 2400F 2.0E  
OTHERS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 13=0-4-0, 14=Mechanical  
Max Horz 13=179(LC 12)  
Max Uplift 13=-52(LC 12), 14=-89(LC 12)  
Max Grav 13=823(LC 1), 14=667(LC 1)

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

TOP CHORD 2-3=-992/125, 3-4=-501/43, 5-8=-132/571, 2-13=-804/131  
BOT CHORD 2-11=-87/699, 10-11=-261/833, 9-10=-86/336, 8-9=-76/389  
WEBS 4-8=-689/138, 4-10=-41/584, 3-10=-581/211, 5-14=-668/142

#### 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=6.0psf; 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 10-7-14, Exterior(2E) 10-7-14 to 12-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 13, 14.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853195
2552987	E08	HALF HIP	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:03 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-FBltcPtHFS4VxxWNA4t4XWztu7kakmfvm7QZeDyCgLE

0-10-8	6-2-11	12-1-14	13-4-0
0-10-8	6-2-11	5-11-3	1-2-2

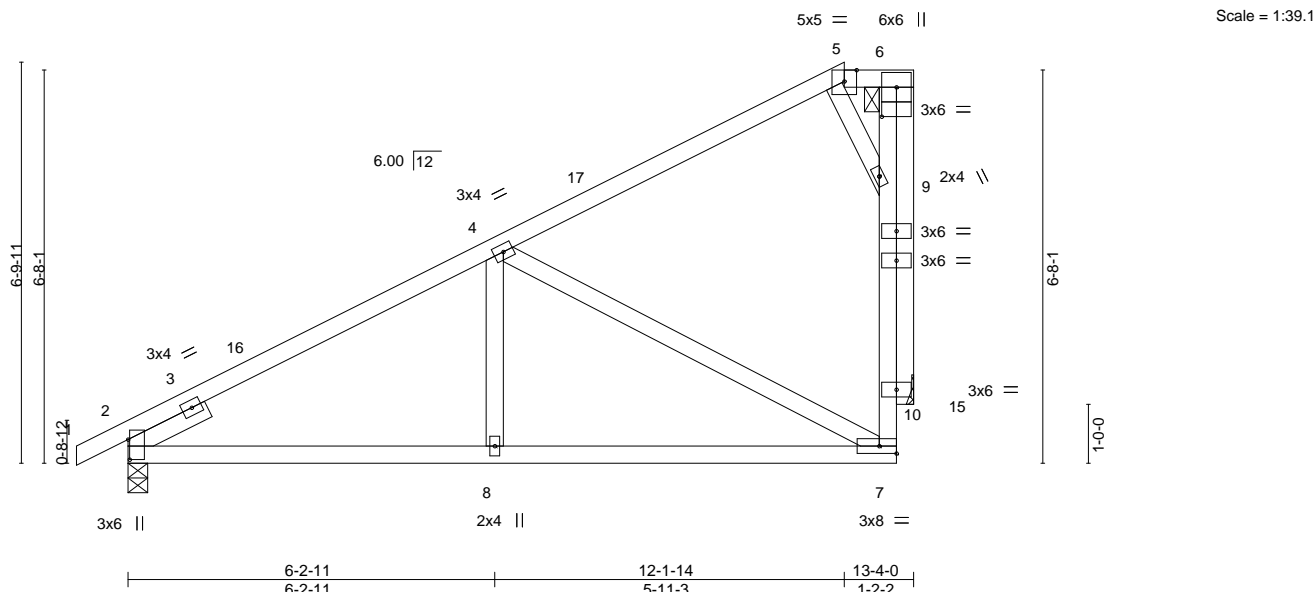


Plate Offsets (X,Y)-- [2:0-4-1,0-0-5], [9:0-0-8,1-0-3]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.44	Vert(LL)	-0.05	7-8	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.36	Vert(CT)	-0.10	7-8	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.02	15	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 62 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  
SLIDER Left 2x4 SPF No.2 1-6-0

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 5-6.  
BOT CHORD Rigid ceiling directly applied.

**REACTIONS.** (size) 2=0-4-0, 15=Mechanical  
Max Horz 2=233(LC 12)  
Max Uplift 2=44(LC 12), 15=124(LC 12)  
Max Grav 2=811(LC 1), 15=687(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-914/24, 7-10=-43/427, 9-10=-44/429, 6-9=-261/873  
BOT CHORD 2-8=-175/780, 7-8=-175/780  
WEBS 4-8=0/273, 4-7=-772/173, 5-9=-489/240, 6-15=-688/161

- 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=6.0psf; 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 12-1-14, Exterior(2E) 12-1-14 to 12-10-12 zone; cantilever left and right exposed; end vertical left 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.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 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) 2 except (jt=lb) 15=124.
  - This truss 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss E09	Truss Type JACK-CLOSED	Qty 3	Ply 1	Summit/19 Woodside 143853196
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:04 2020 Page 1  
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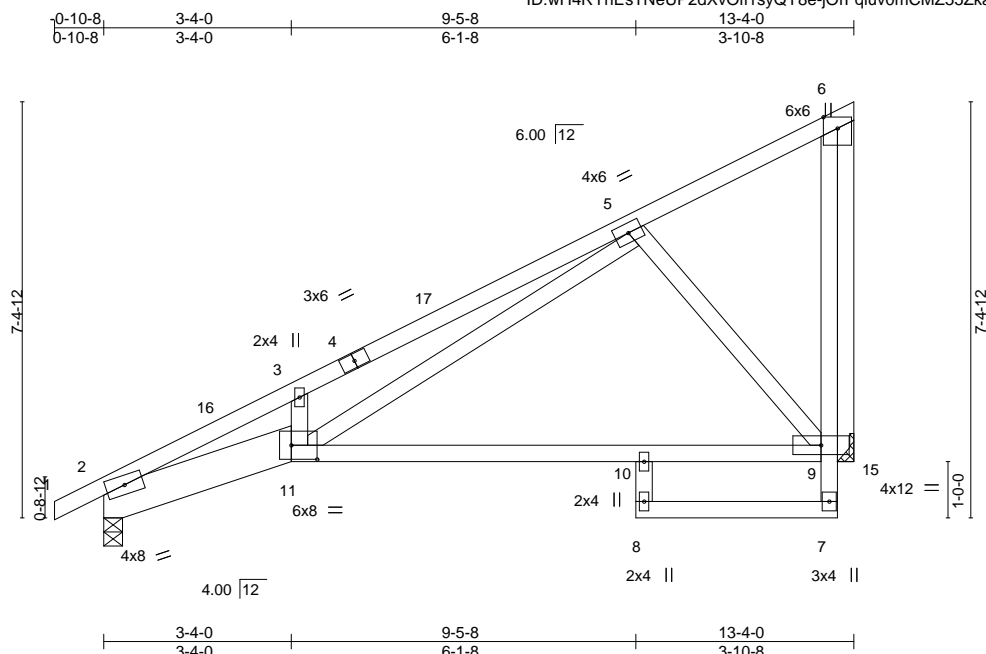


Plate Offsets (X,Y)-- [11:0-5-8,0-3-0]							
<b>LOADING</b> (psf)	<b>SPACING</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	L/defl	<b>L/d</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.59	Vert(LL)	-0.22 10-11	>720	240
TCDL 20.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.51 10-11	>313	180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.07 15	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
						Weight: 74 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-11: 2x8 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 15=Mechanical  
Max Horz 2=200(LC 12)  
Max Uplift 2=30(LC 12), 15=73(LC 12)  
Max Grav 2=806(LC 1), 15=691(LC 1)

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

TOP CHORD 2-3=-2039/112, 3-5=-2146/229, 6-9=-84/625  
BOT CHORD 2-11=-302/1821, 10-11=-131/506, 9-10=-136/487  
WEBS 3-11=-393/162, 5-9=-693/180, 5-11=-223/1596, 6-15=-692/114

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 12-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 15.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss E10	Truss Type JACK-CLOSED	Qty 1	Ply 1	Summit/19 Woodside I43853197
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:05 2020 Page 1  
ID:wH4RYhEstNeUP2dXvOfi1syQY8e-BaPd15vXn3KDAFgmHH6?bOyDjXBMEXRuDRvgj5yCgLC

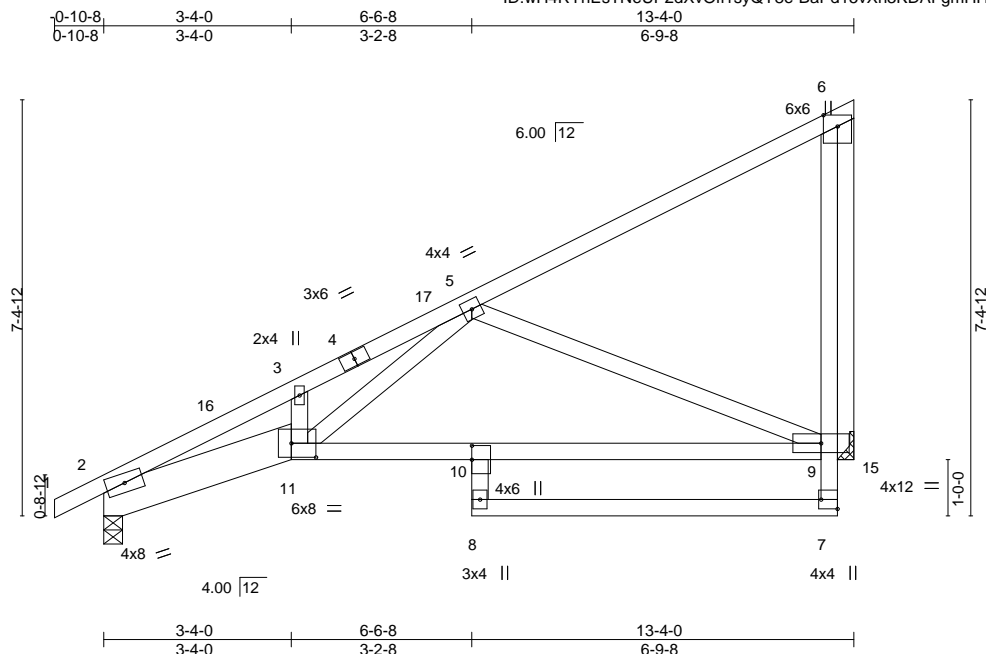


Plate Offsets (X,Y)-- [7:Edge,0-3-8], [10:0-3-0,0-0-0], [11:0-5-4,0-3-0]							
<b>LOADING</b> (psf)	<b>SPACING</b>	2-0-0	<b>CSI</b>	<b>DEFL.</b>	in (loc)	L/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.50	Vert(LL)	-0.11	8	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.26	10	>599
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.80	Horz(CT)	0.05	15	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
						<b>PLATES</b>	<b>GRIP</b>
						MT20	197/144
						Weight: 76 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2 \*Except\*  
2-11: 2x8 SP 2400F 2.0E  
WEBS 2x4 SPF No.2  
OTHERS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 15=Mechanical  
Max Horz 2=200(LC 12)  
Max Uplift 2=30(LC 12), 15=73(LC 12)  
Max Grav 2=806(LC 1), 15=691(LC 1)

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

TOP CHORD 2-3=-1924/84, 3-5=-1842/134, 6-9=-34/459  
BOT CHORD 2-11=-272/1693, 10-11=-226/922, 9-10=-283/791  
WEBS 5-11=-76/968, 5-9=-938/212, 6-15=-692/114

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 12-10-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 15.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss E11	Truss Type JACK-CLOSED	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853198
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:05 2020 Page 1

ID:WH4RYhEsTNeUP2dXvOfi1syQY8e-BaPd15vXn3KDAFgmHH6?bOyC8XG6EX?uDRvgj5yCgLC

0-10-8 6-8-0 13-4-0  
0-10-8 6-8-0 6-8-0

6.00 12

Scale = 1:40.6

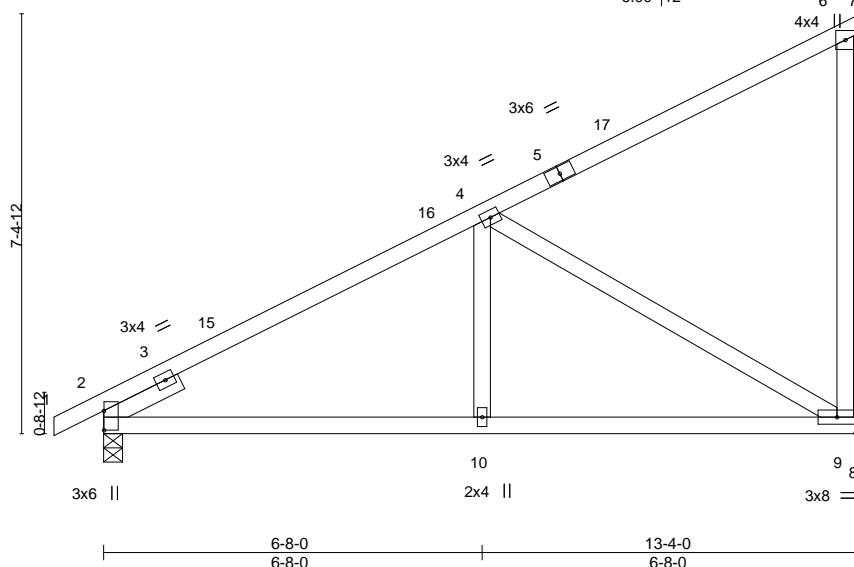


Plate Offsets (X,Y)-- [2:0-4-1,0-0-1]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.53	Vert(LL) -0.04	9-10	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.37	Vert(CT) -0.08	9-10	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.79	Horz(CT) 0.02	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS					Weight: 55 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 2=0-4-0, 9=Mechanical  
Max Horz 2=265(LC 11)  
Max Uplift 2=-51(LC 12), 9=-58(LC 9)  
Max Grav 2=800(LC 1), 9=732(LC 1)

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

TOP CHORD 2-4=-872/114  
BOT CHORD 2-10=-234/739, 9-10=-234/739  
WEBS 4-10=0/283, 4-9=-828/184

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 13-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 9.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853199
2552987	E12	HALF HIP	1	1		

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:06 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-fmz?FRwAXNS4oPFYr?dE8bVNRxb7zzQ2S5fDFXyCgLB

6-7-12 6-7-12 13-0-0 6-4-4 13-4-0 0-4-0

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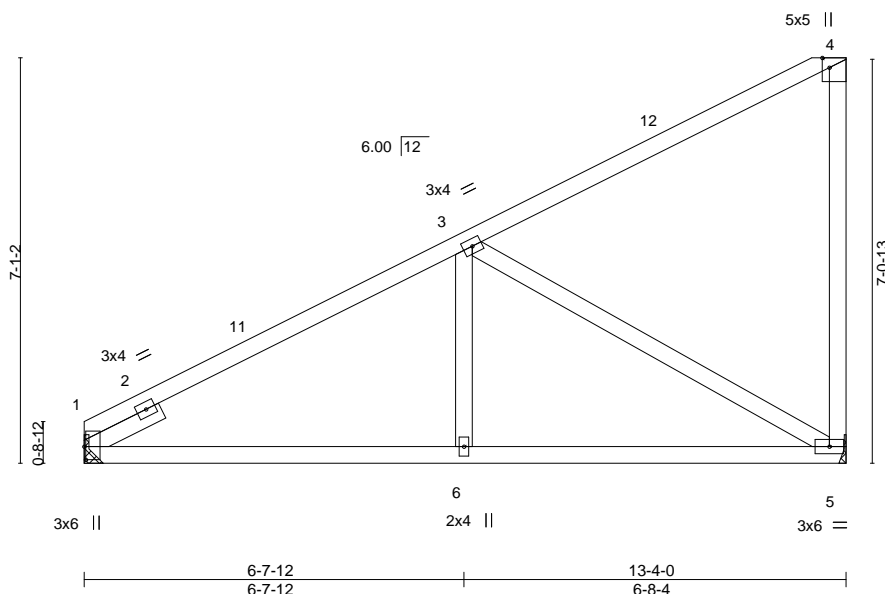


Plate Offsets (X,Y)--		[1:0-2-12,0-0-5], [4:0-2-1,Edge]			
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.56	Vert(LL) -0.05 5-6 >999 240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15	BC 0.38	Vert(CT) -0.09 5-6 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.84	Horz(CT) 0.02 5 n/a n/a		
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 54 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 1=Mechanical, 5=Mechanical  
Max Horz 1=257(LC 11)  
Max Uplift 1=49(LC 12), 5=118(LC 12)  
Max Grav 1=725(LC 1), 5=725(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-3=-862/124  
BOT CHORD 1-6=-228/764, 5-6=-228/764  
WEBS 3-6=0/289, 3-5=-855/189

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 13-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 5=118.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853200
2552987	E13	HALF HIP	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:07 2020 Page 1  
ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-7yXNSmwolhaxQZq8Pi8Tgp1a\_LvziWVBhIOnn\_yCgLA

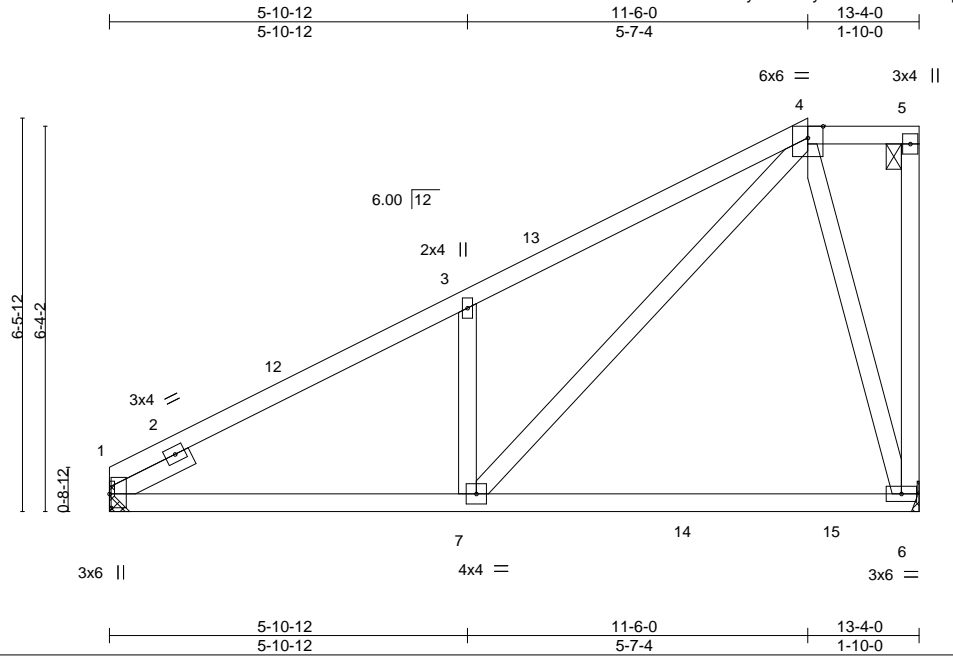


Plate Offsets (X,Y)-- [1:0-2-12,0-0-5]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d			<b>PLATES</b>	<b>GRIP</b>		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	-0.12	6-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.47	Vert(CT)	-0.20	6-7	>779	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 60 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 1=Mechanical, 6=Mechanical  
Max Horz 1=221(LC 11)  
Max Uplift 1=-55(LC 12), 6=-85(LC 12)  
Max Grav 1=749(LC 2), 6=772(LC 2)

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

TOP CHORD 1-3=-1013/125, 3-4=-1036/238  
BOT CHORD 1-7=-252/858  
WEBS 3-7=-517/216, 4-7=-187/961, 4-6=-678/297

#### 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=6.0psf; 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 11-6-0, Exterior(2E) 11-6-0 to 13-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 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) 1, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss E14	Truss Type HALF HIP	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853201
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:08 2020 Page 1

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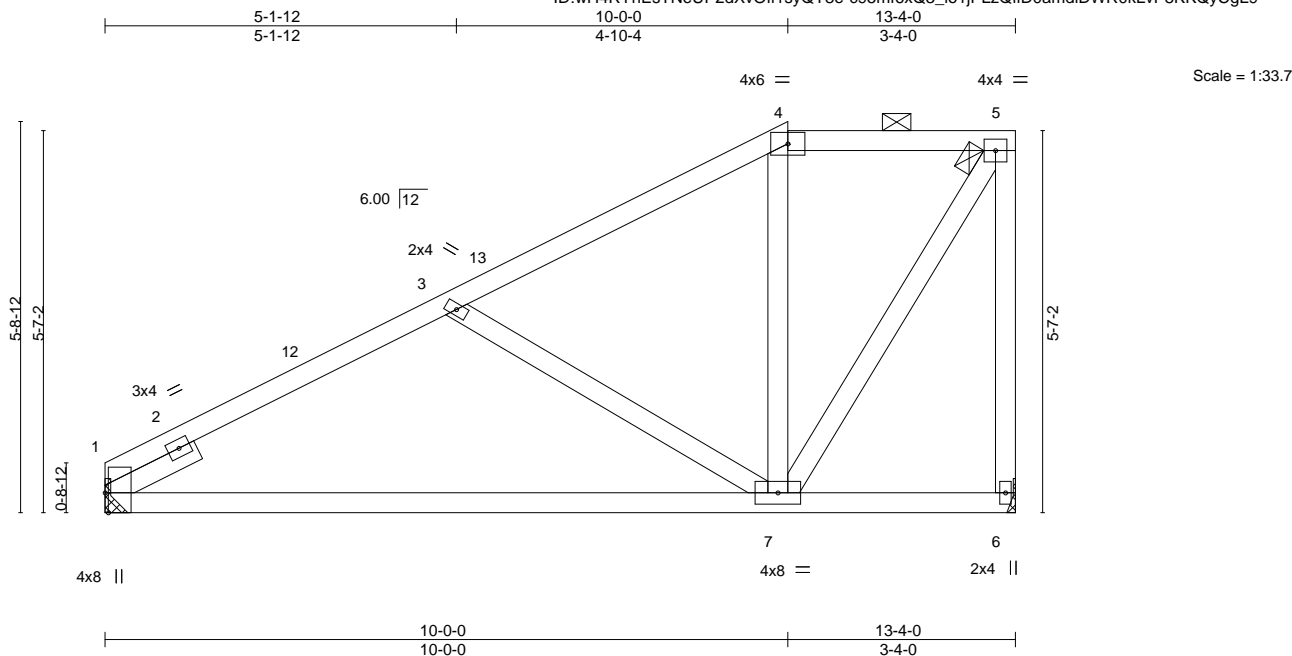


Plate Offsets (X,Y)-- [1:0-3-8,Edge]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	-0.16 7-10	>998	240
TCDL 20.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.32 7-10	>487	180
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.28	Horz(CT)	0.02 1	n/a	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 58 lb	FT = 20%		

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 1-6-0

#### BRACING-

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

#### REACTIONS.

(size) 1=Mechanical, 6=Mechanical  
Max Horz 1=193(LC 11)  
Max Uplift 1=-57(LC 12), 6=-69(LC 9)  
Max Grav 1=725(LC 1), 6=725(LC 1)

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

TOP CHORD 1-3=-903/166, 3-4=-529/109, 4-5=-386/124, 5-6=-727/181  
BOT CHORD 1-7=-299/808  
WEBS 3-7=-501/178, 5-7=-179/714

#### 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=6.0psf; 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(2E) 10-0-0 to 13-2-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 1, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853202
2552987	G01	Hip Girder	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:10 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-YXDW4ozgbcyVH0Zj4riAIRfxhYsJvuDdNjdROJyCgL7

Job Reference (optional)

-0-10-8	2-9-0	7-11-8	13-2-0	15-7-0
0-10-8	2-9-0	5-2-8	5-2-8	2-5-0

Scale = 1:28.0

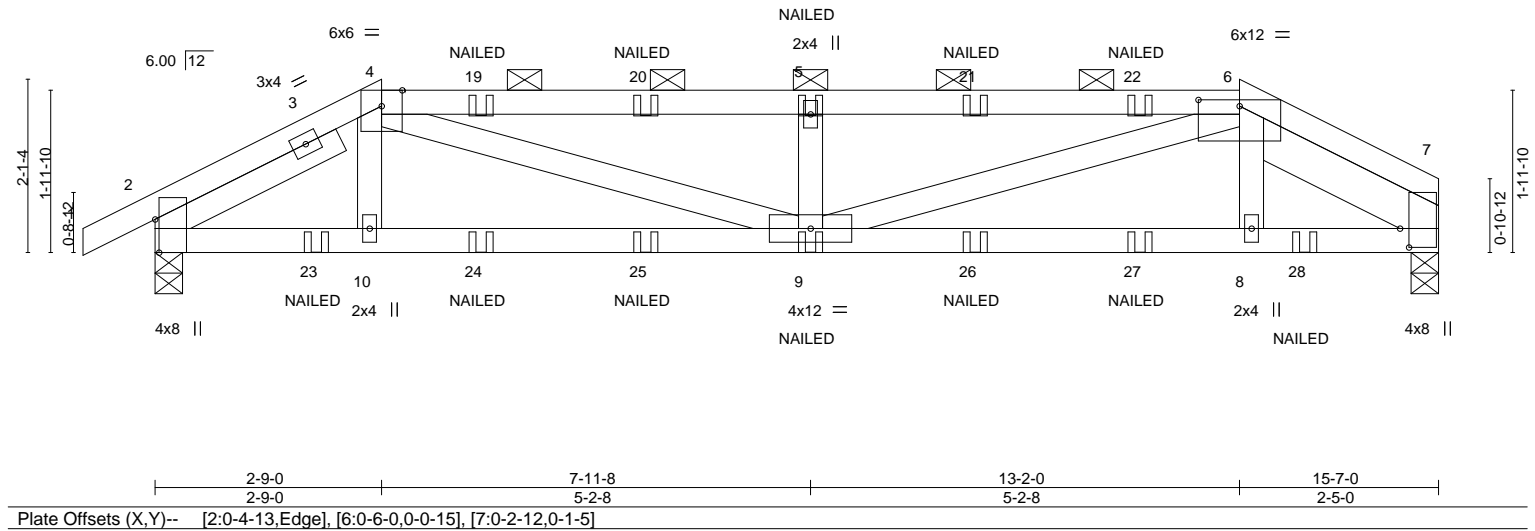


Plate Offsets (X,Y)--		[2:0-4-13,Edge], [6:0-6-0,0-0-15], [7:0-2-12,0-1-5]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.99	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.82	Vert(LL) -0.10 9-10 >999 240
BCLL 0.0 *	Rep Stress Incr NO	WB 0.41	Vert(CT) -0.23 9-10 >815 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MS	Horz(CT) 0.03 7 n/a n/a
			<b>PLATES</b> MT20
			<b>GRIP</b> 197/144
			Weight: 62 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-2 oc purlins, except 2-0-0 oc purlins (2-1-2 max.): 4-6.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 7=0-4-0, 2=0-4-0  
 Max Horz 2=37(LC 8)  
 Max Uplift 7=140(LC 9), 2=156(LC 8)  
 Max Grav 7=1299(LC 1), 2=1364(LC 1)

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

TOP CHORD 2-4=-1996/209, 4-5=-3171/336, 5-6=-3171/337, 6-7=-253/81  
 BOT CHORD 2-10=-179/1767, 9-10=-183/1751, 8-9=-149/1628, 7-8=-144/1647  
 WEBS 4-10=0/255, 4-9=-181/1530, 5-9=-769/214, 6-9=-192/1654, 6-8=0/285

#### 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=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 7=140, 2=156.
- This truss 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.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-90, 4-6=-90, 6-7=-90, 11-15=-20



December 4, 2020

Continued on page 2

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017



Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853202
2552987	G01	Hip Girder	1	1	Job Reference (optional)	

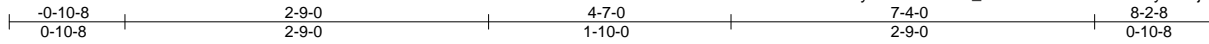
**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 9=-41(F) 5=-57(F) 19=-57(F) 20=-57(F) 21=-57(F) 22=-57(F) 23=-191(F) 24=-41(F) 25=-41(F) 26=-41(F) 27=-41(F) 28=-191(F)

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853203
2552987	H01	HIP GIRDER	1	1		

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:11 2020 Page 1

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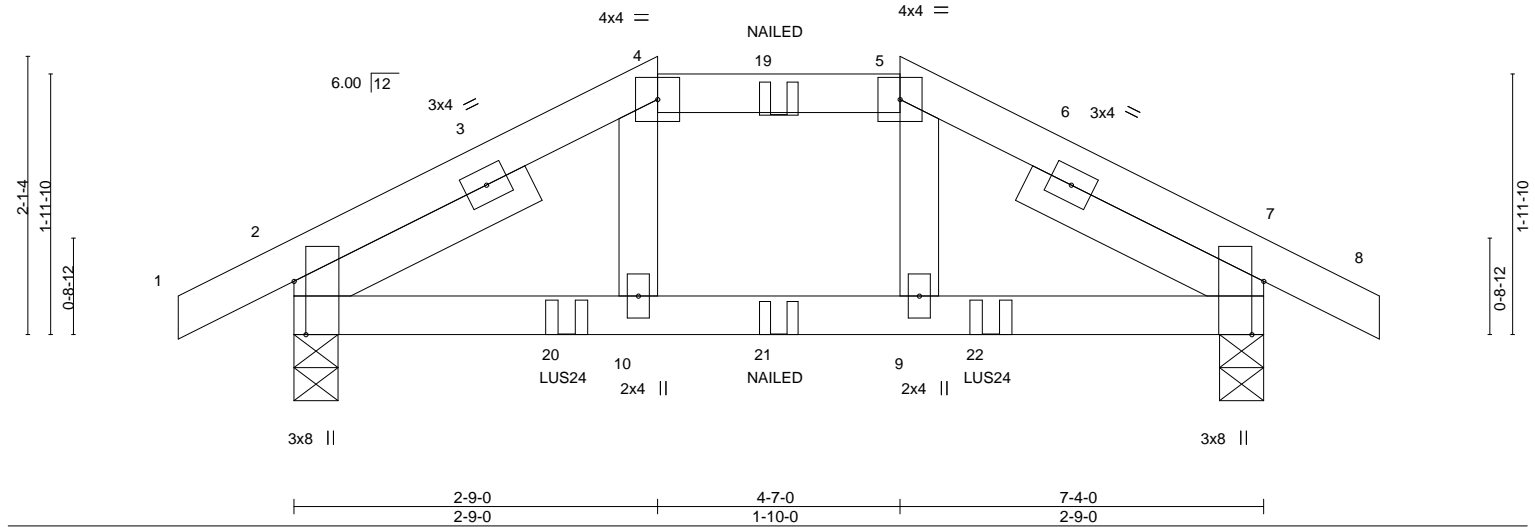


Plate Offsets (X, Y)--		[2:0-4-13,Edge], [7:0-4-13,Edge]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.19	<b>DEFL.</b> in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.40	Vert(LL) 0.02 10-13 >999 240
BCLL 0.0 *	Rep Stress Incr NO	WB 0.07	Vert(CT) -0.03 10-13 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP	Horz(CT) 0.01 7 n/a n/a
			<b>PLATES</b> MT20 <b>GRIP</b> 197/144
			Weight: 28 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-6 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-5.  
 BOT CHORD Rigid ceiling directly applied or 7-6-8 oc bracing.

#### REACTIONS.

(size) 2=0-4-0, 7=0-4-0  
 Max Horz 2=28(LC 33)  
 Max Uplift 2=-468(LC 8), 7=-468(LC 9)  
 Max Grav 2=884(LC 35), 7=884(LC 36)

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

TOP CHORD 2-4=-1068/647, 4-5=-907/559, 5-7=-1068/647  
 BOT CHORD 2-10=-544/953, 9-10=-525/925, 7-9=-547/955  
 WEBS 4-10=-264/395, 5-9=-264/395

#### 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=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=468, 7=468.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent spaced at 3-2-8 oc max. starting at 2-0-12 from the left end to 5-3-4 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-4=-90, 4-5=-90, 5-8=-90, 11-15=-20



December 4, 2020

Continued on page 2

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853203
2552987	H01	HIP GIRDER	1	1	Job Reference (optional)	

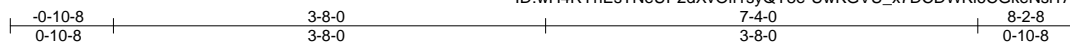
**LOAD CASE(S)** Standard  
 Concentrated Loads (lb)  
 Vert: 19=-57(F) 20=-197(F) 21=-41(F) 22=-197(F)

Job 2552987	Truss H02	Truss Type COMMON	Qty 4	Ply 1	Summit/19 Woodside I43853204
Job Reference (optional)					

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:12 2020 Page 1

ID: wH4RYhEsTNeUP2dXvOfi1syQY8e-UwKGVU\_x7DCDWKi6CGKeNsiTAMi6Nudwq16YTByCgLS



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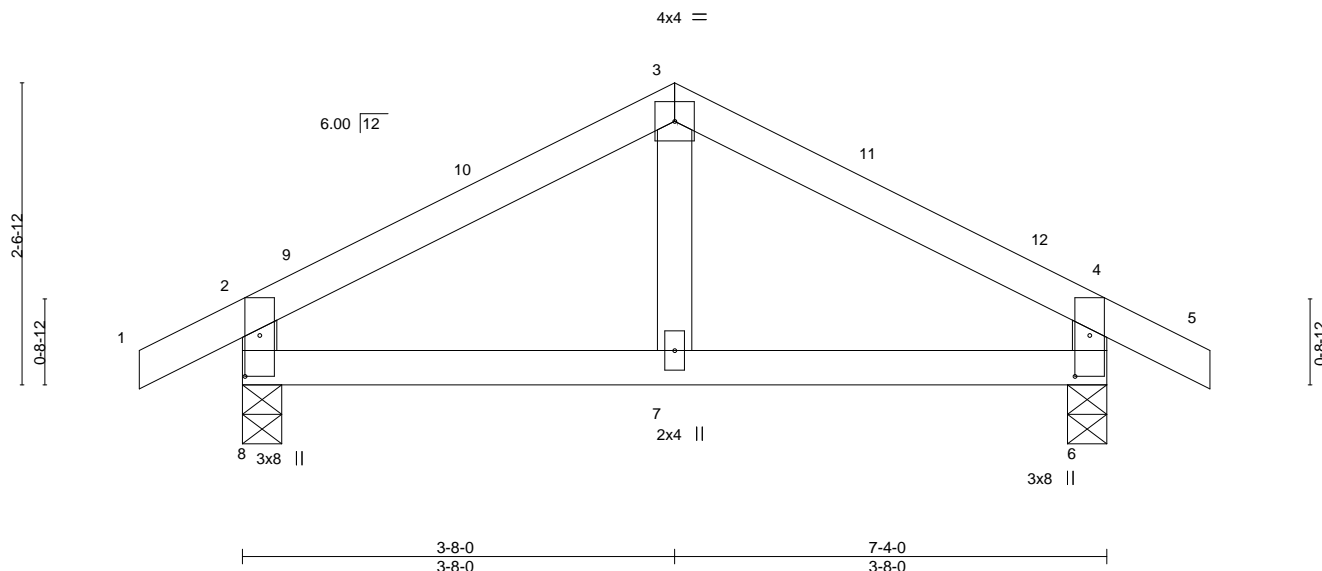


Plate Offsets (X,Y)--	[6:0-4-3,0-1-8], [8:0-4-3,0-1-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	-0.01	7	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.01	7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 23 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 8=0-4-0, 6=0-4-0  
Max Horz 8=-43(LC 10)  
Max Uplift 8=-46(LC 12), 6=-46(LC 13)  
Max Grav 8=479(LC 1), 6=479(LC 1)

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

TOP CHORD 2-3=-414/158, 3-4=-414/158, 2-8=-426/208, 4-6=-426/207  
BOT CHORD 7-8=-57/295, 6-7=-57/295

#### 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=6.0psf; 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 3-8-0, Exterior(2R) 3-8-0 to 6-8-0, Interior(1) 6-8-0 to 8-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



December 4, 2020

**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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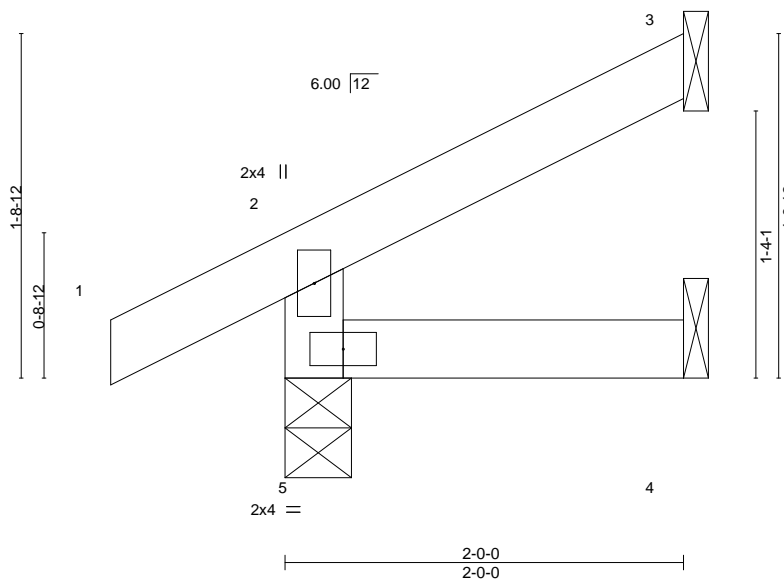
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J01	Truss Type JACK-OPEN	Qty 5	Ply 1	Summit/19 Woodside I43853205
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:13 2020 Page 1  
ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-y6ufjq?ZuXK48UHllzFtw4Hg3m4C6LI43hr5?dyCgL4

-0-10-8  
0-10-8  
2-0-0  
2-0-0

Scale = 1:11.6



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 0.09	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.00	4-5	>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-MR						Weight: 6 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 5=0-4-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=44(LC 12)  
Max Uplift 5=18(LC 12), 3=-28(LC 12)  
Max Grav 5=219(LC 1), 3=61(LC 1), 4=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=6.0psf; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



December 4, 2020

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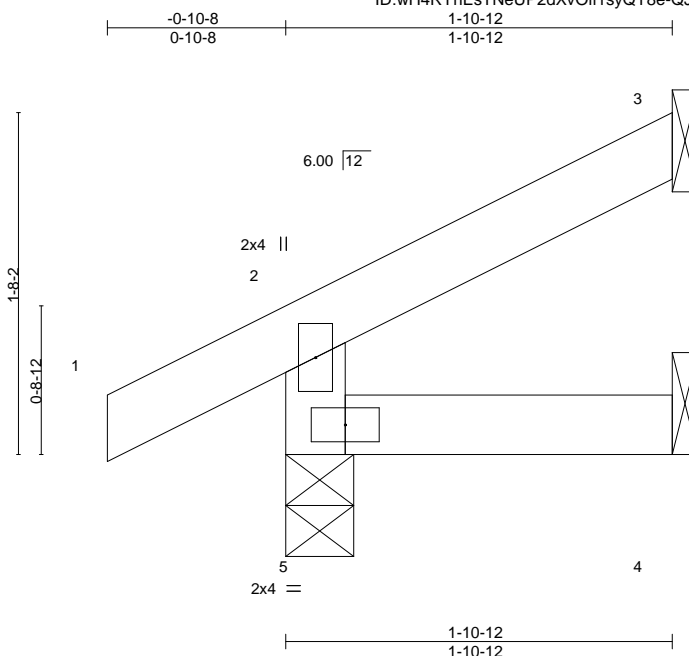
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J01A	Truss Type Jack-Open	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853206
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:14 2020 Page 1

ID:WH4RYhEsTNeUP2dXvOfi1syQY8e-QJS1wA0BfqSxmesUJgm6SHqrpAPUroXDILbeX4yCgL3



Scale = 1:11.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	-0.00	5	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	-0.00	5	>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-MR						Weight: 6 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-10-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-4-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=42(LC 12)  
Max Uplift 5=18(LC 12), 3=27(LC 12)  
Max Grav 5=214(LC 1), 3=56(LC 1), 4=31(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss J02	Truss Type Jack-Open	Qty 6	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853207
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:15 2020 Page 1

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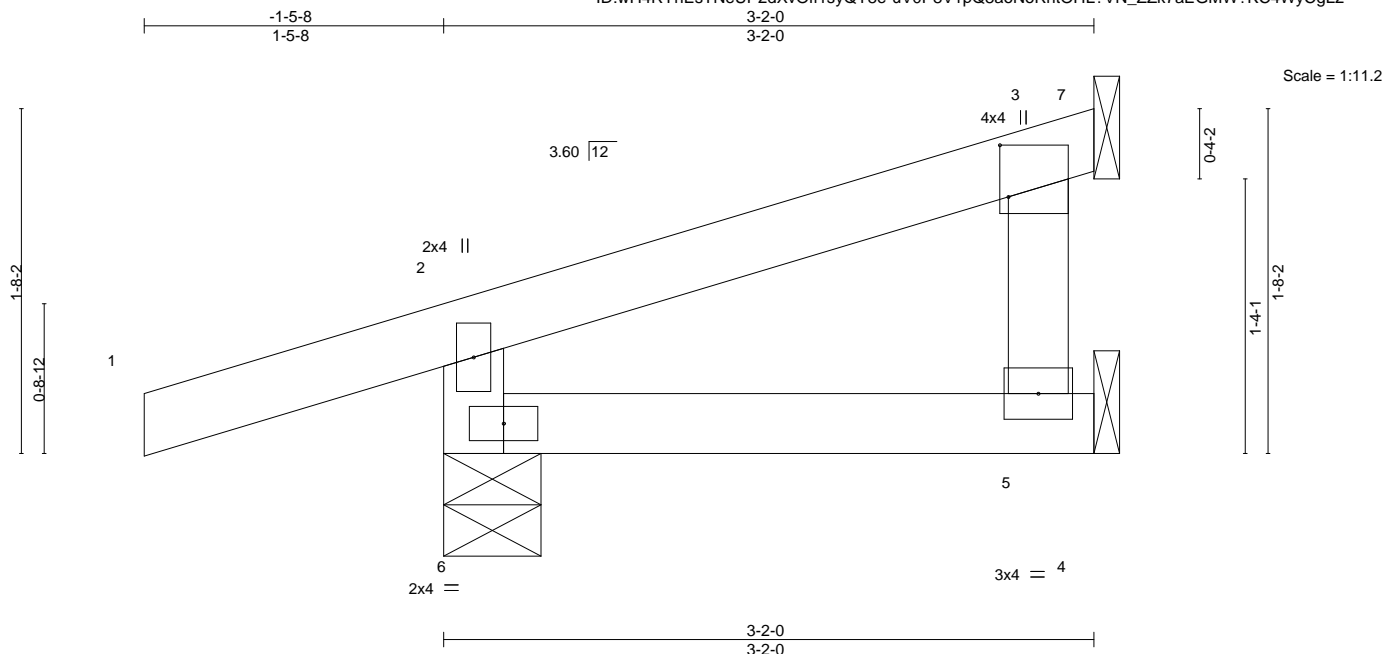


Plate Offsets (X,Y)-- [3:0-3:0,0-0-8]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	-0.00	5-6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	-0.02	3	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  
WEBS 2x4 SPF No.2

#### BRACING-

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

**REACTIONS.** (size) 6=0-5-11, 5=Mechanical, 3=Mechanical  
Max Horz 6=49(LC 8)  
Max Uplift 6=107(LC 8), 3=498(LC 8)  
Max Grav 6=342(LC 1), 5=508(LC 8), 3=90(LC 1)

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

TOP CHORD 2-6=-315/238  
WEBS 3-5=-1030/382

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=107, 3=498.
- 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) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



December 4, 2020

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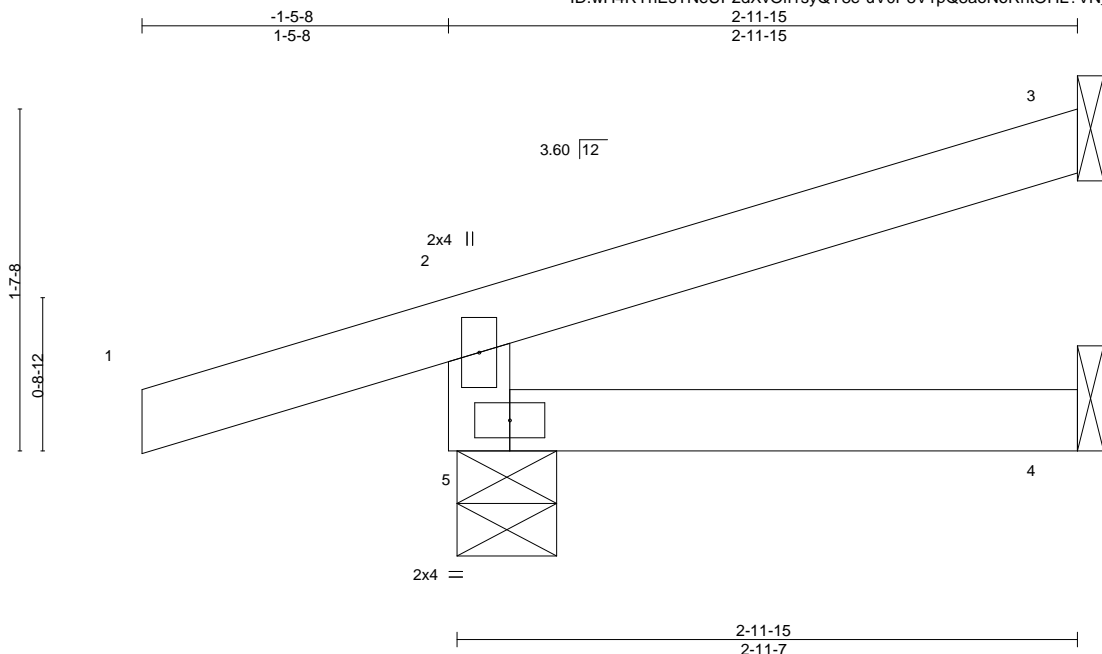
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J02A	Truss Type Jack-Open	Qty 2	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853208
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:15 2020 Page 1

ID:wH4RYhEstNeUP2dXvOfi1syQY8e-uV0P8V1pQ8aoNoRhtOHL?VN\_ZZIMaFnMW?KC4WyCgL2



Scale = 1:11.0

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 0.22	Vert(LL)	-0.00	4-5	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	4-5	>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-MR						Weight: 9 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-5-11, 3=Mechanical, 4=Mechanical  
Max Horz 5=47(LC 8)  
Max Uplift 5=82(LC 8), 3=31(LC 12)  
Max Grav 5=339(LC 1), 3=91(LC 1), 4=48(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-304/198

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.



December 4, 2020

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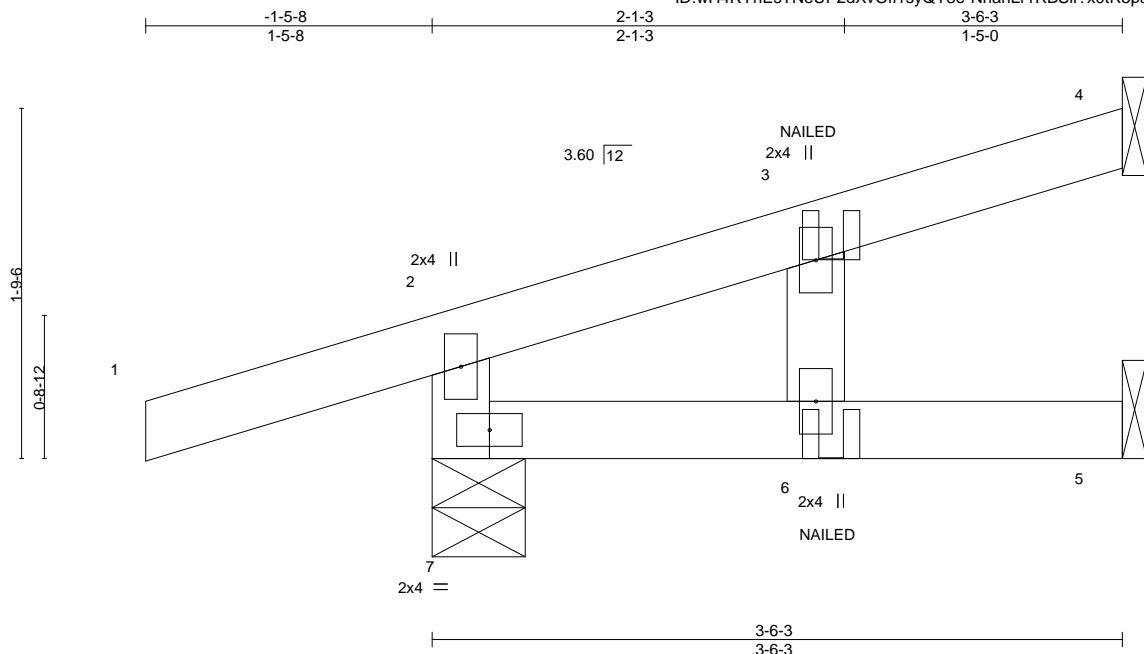
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J02B	Truss Type Jack-Open Girder	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853209
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:16 2020 Page 1

ID:wH4RYhEstNeUP2dXvOfi1syQY8e-NhanLr1RBSif?x0tR5paYiv9oz4eJiwWlf4lcyCgL1



Scale = 1:11.7

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 0.25	Vert(LL)	0.01	6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	6	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.01	Horz(CT)	0.00	4	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  
WEBS 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-6-3 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 7=0-5-11, 4=Mechanical, 5=Mechanical  
Max Horz 7=53(LC 4)  
Max Uplift 7=83(LC 4), 4=-24(LC 8), 5=-1(LC 8)  
Max Grav 7=361(LC 1), 4=95(LC 1), 5=58(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-7=-294/88

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 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.
- "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-2=-90, 2-4=-90, 5-7=-20



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J03	Truss Type Half Hip Girder	Qty 6	Ply 1	Summit/19 Woodside	I43853210
Builders FirstSource (Valley Center), Valley Center, KS - 67147,						8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:17 2020 Page 1
Job Reference (optional)						ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-ru89YB23ylrWd5b3_pKp4wSKvNIA28ef_JpI8PyCgLO

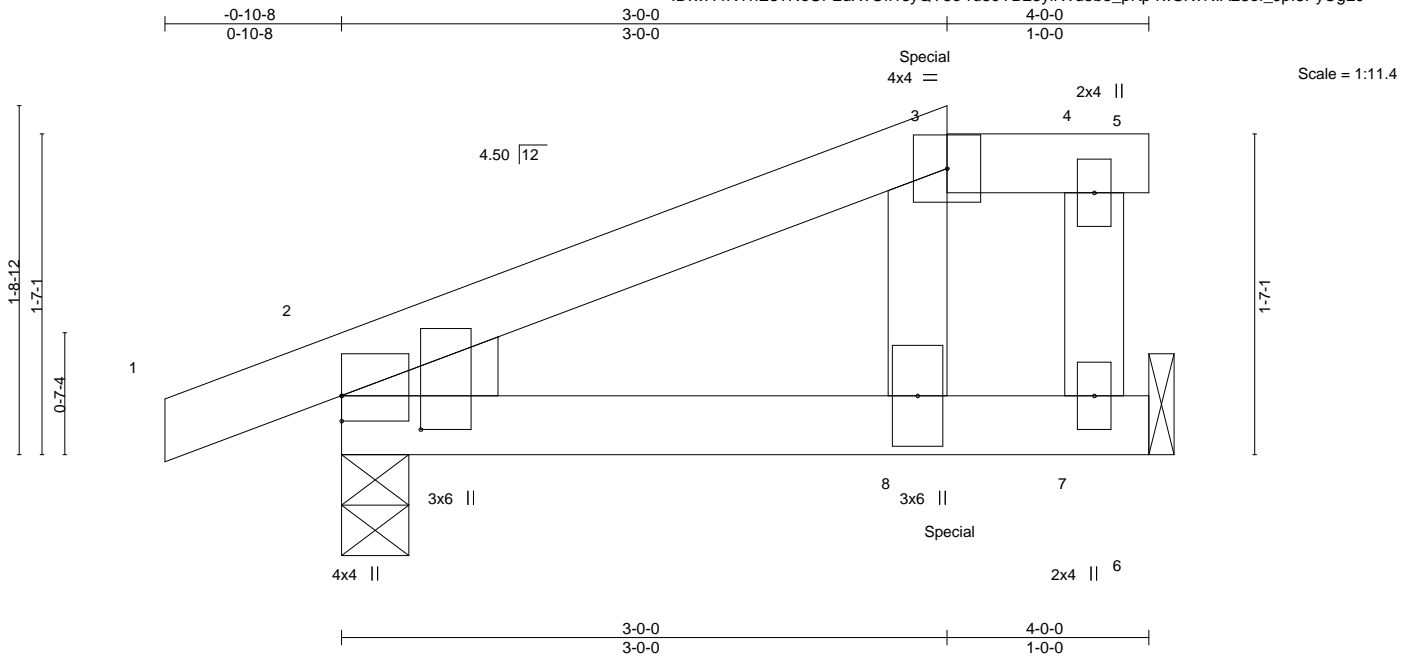


Plate Offsets (X,Y)-- [2:0-2-0,0-4-11]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.23	Vert(LL)	0.08	8-11	>551	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.61	Vert(CT)	-0.08	8-11	>545		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.11	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 14 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except 2-0-0 oc purlins: 3-5.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-4-0, 7=Mechanical  
 Max Horz 2=49(LC 4)  
 Max Uplift 2=-137(LC 4), 7=-401(LC 8)  
 Max Grav 2=321(LC 38), 7=478(LC 34)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 WEBS 3-8=-169/599

#### 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=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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 (it=lb) 2=137, 7=401.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 51 lb down and 519 lb up at 3-0-0 on top chord, and 512 lb down at 3-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-90, 3-4=-90, 4-5=-40, 6-9=-20



December 4, 2020

Continued on page 2

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

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853210
2552987	J03	Half Hip Girder	6	1	Job Reference (optional)	

**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 8=-6(B)





Job 2552987	Truss J03B	Truss Type Half Hip Girder	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853212
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:19 2020 Page 1

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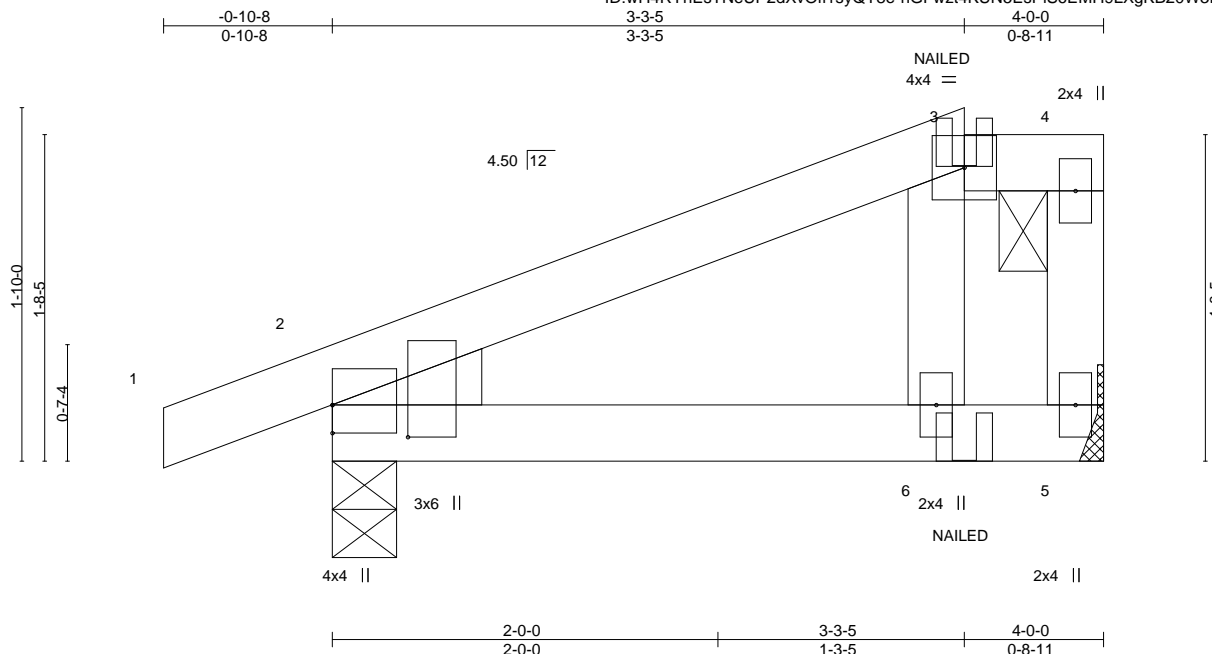


Plate Offsets (X,Y)-- [2-0-2-0,0-4-11]

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	6-9	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.33	Vert(CT)	-0.04	6-9	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.02	Horz(CT)	0.01	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 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
WEDGE  
Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 5=Mechanical, 2=0-4-0  
Max Horz 2=58(LC 7)  
Max Uplift 5=35(LC 5), 2=53(LC 4)  
Max Grav 5=230(LC 1), 2=306(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=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 5, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-3=-90, 3-4=-90, 5-7=-20  
Concentrated Loads (lb)  
Vert: 3=-3(F) 6=-29(F)



December 4, 2020

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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 2552987	Truss J04	Truss Type JACK-OPEN	Qty 15	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853213
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:20 2020 Page 1

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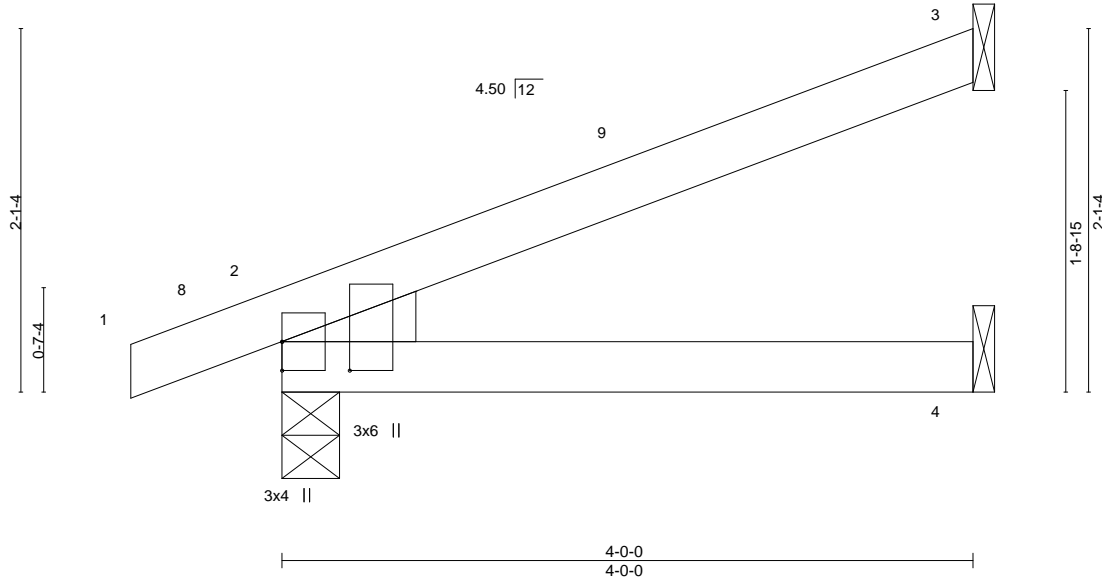


Plate Offsets (X,Y)-- [2:0-2-0,0-4-11]

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 0.20	Vert(CT)	-0.03	4-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-AS						Weight: 12 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 3=Mechanical, 2=0-4-0, 4=Mechanical  
Max Horz 2=66(LC 8)  
Max Uplift 3=44(LC 12), 2=40(LC 8)  
Max Grav 3=147(LC 1), 2=304(LC 1), 4=77(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=6.0psf; 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 3-11-4 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J04A	Truss Type Jack-Open	Qty 3	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853214
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:21 2020 Page 1

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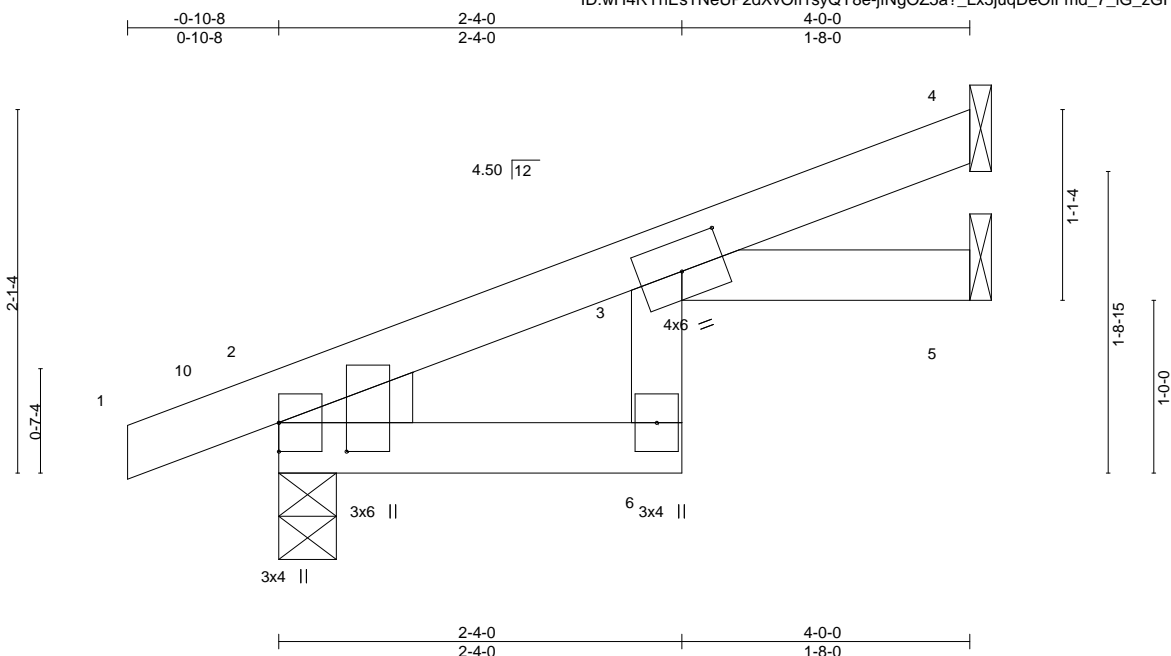


Plate Offsets (X,Y)-- [2:0-2-0,0-4-11], [3:0-3-0,0-2-2]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.02	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.04	6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 13 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2

BOT CHORD 2x4 SPF No.2

WEDGE

Left: 2x4 SPF No.2

#### BRACING-

TOP CHORD

Structural wood sheathing directly applied.

BOT CHORD

Rigid ceiling directly applied.

**REACTIONS.** (size) 4=Mechanical, 2=0-4-0, 5=Mechanical

Max Horz 2=66(LC 8)

Max Uplift 4=32(LC 12), 2=40(LC 8), 5=5(LC 12)

Max Grav 4=126(LC 1), 2=304(LC 1), 5=82(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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-2-4, Interior(1) 2-2-4 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



December 4, 2020

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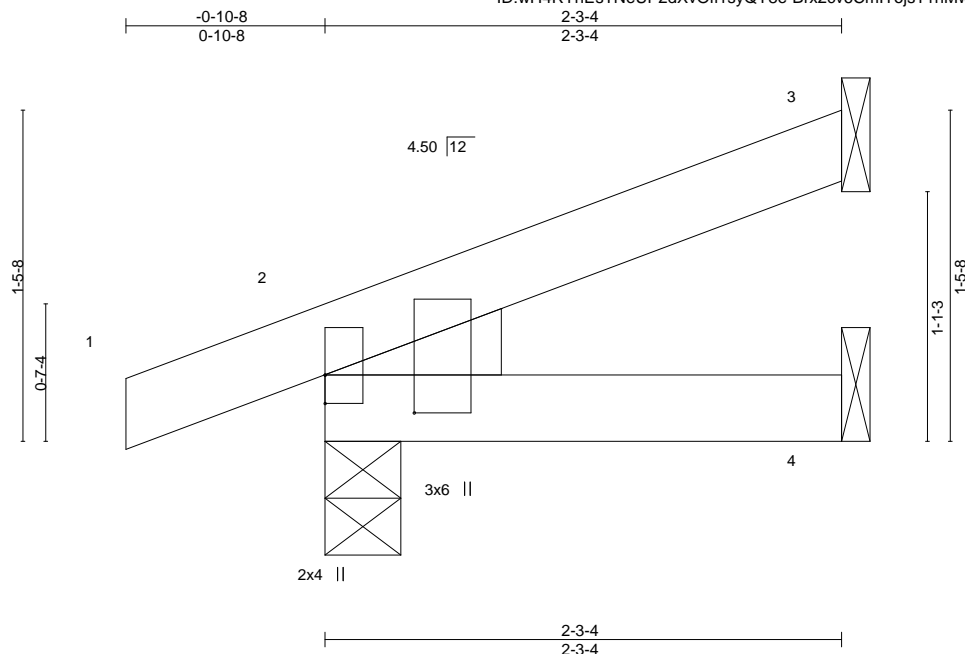
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J05	Truss Type Jack-Open	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853215
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:22 2020 Page 1

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Scale = 1:10.1

Plate Offsets (X,Y)-- [2:0-2-0,0-4-11]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
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	0.05	Vert(CT)	-0.00 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: 7 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-4-0, 4=Mechanical  
Max Horz 2=44(LC 8)  
Max Uplift 3=-22(LC 12), 2=-38(LC 8)  
Max Grav 3=72(LC 1), 2=216(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=6.0psf; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



December 4,2020

**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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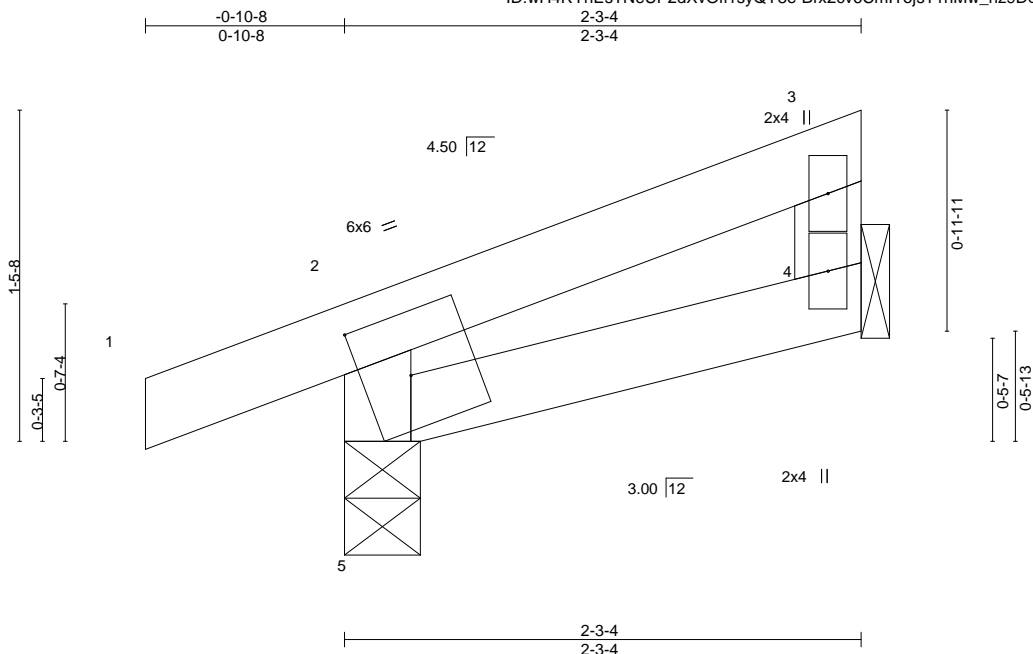
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J05A	Truss Type Monopitch	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853216
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:22 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-Brx2cv6CmlTojsT1nMw\_nz9DqQ8TjQWO7bX3ocyCgKx



Scale = 1:10.1

Plate Offsets (X,Y)--		[2:0-1-14,0-0-0], [2:0-2-8,0-3-4], [5:0-0-10,0-1-10]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.09	in (loc) l/defl L/d
TCDL 20.0	Lumber DOL 1.15	BC 0.03	Vert(LL) -0.00 5 >999 240
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Vert(CT) -0.00 4-5 >999 180
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MR	Horz(CT) -0.00 4 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 7 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=Mechanical, 5=0-4-0  
Max Horz 5=44(LC 9)  
Max Uplift 4=14(LC 12), 5=49(LC 8)  
Max Grav 4=85(LC 1), 5=224(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

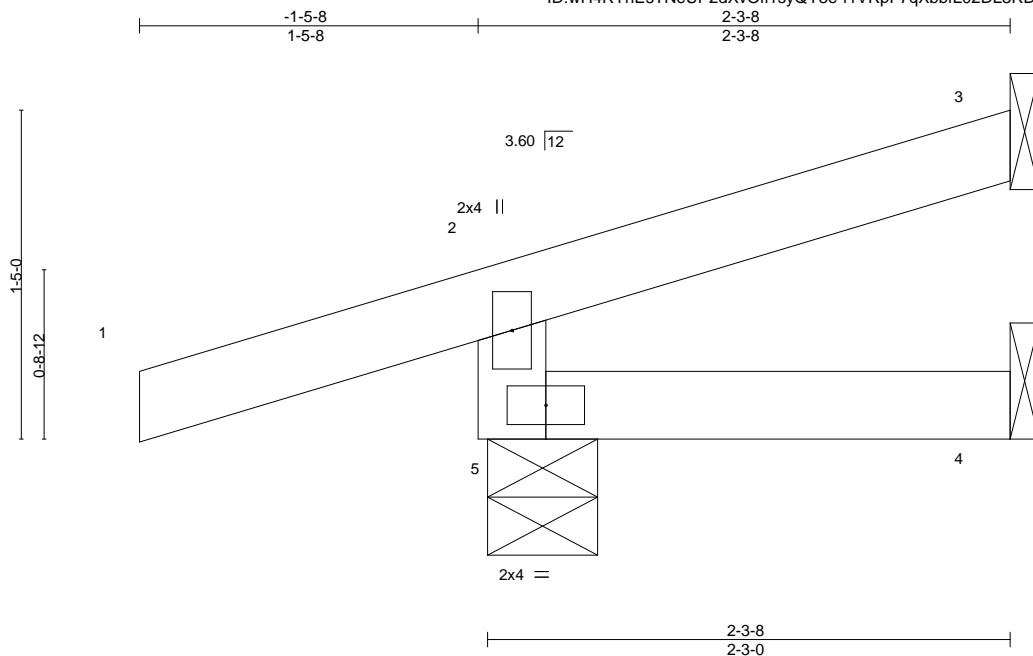
Job 2552987	Truss J06	Truss Type Jack-Open	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853217
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:23 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOf1syQY8e-f1VRpF7qXbbfL02DL3RDKBiMXoUFSsmYMEGdL2yCgKw



Scale = 1:9.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>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-MR						Weight: 7 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-3-8 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-5-11, 3=Mechanical, 4=Mechanical  
Max Horz 5=39(LC 8)  
Max Uplift 5=84(LC 8), 3=-21(LC 12)  
Max Grav 5=315(LC 1), 3=52(LC 1), 4=32(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-279/189

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



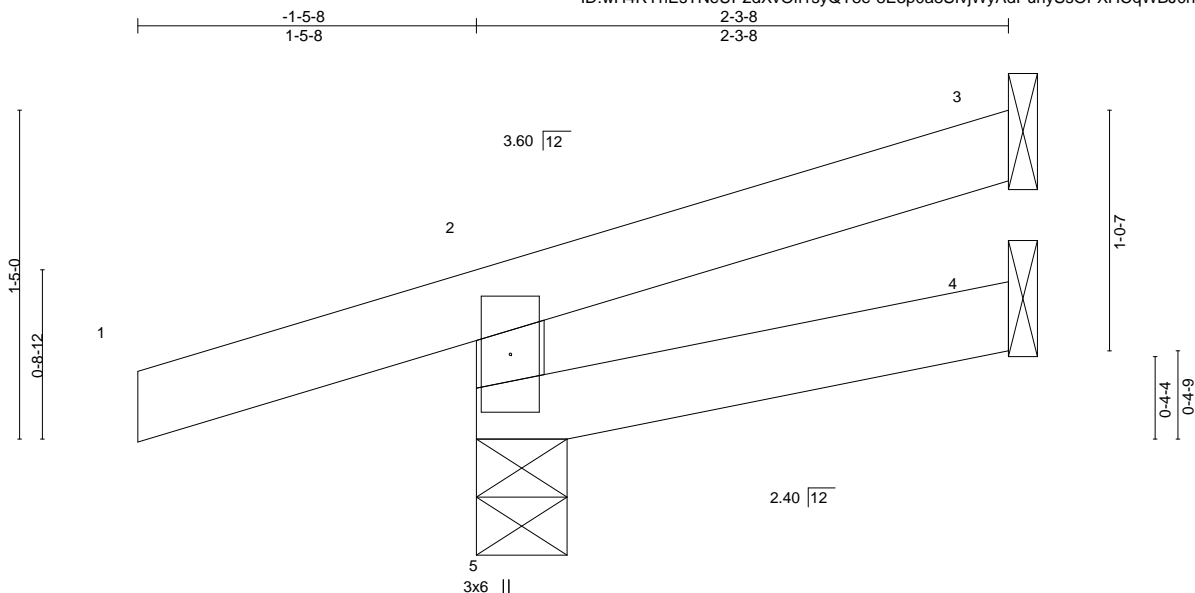
Job 2552987	Truss J06A	Truss Type Jack-Open	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853218
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:24 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-8E3p0a8SlvjWyAdPunySsOFXHCqWBJ0hbu0AtVyCgKv



Scale = 1:9.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.22	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	4-5	>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-MR						Weight: 8 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 5=0-4-11, 3=Mechanical, 4=Mechanical  
Max Horz 5=39(LC 8)  
Max Uplift 5=84(LC 8), 3=-21(LC 12)  
Max Grav 5=315(LC 1), 3=52(LC 1), 4=33(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-5=-280/188

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3.
- 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.



December 4,2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853219
2552987	J07	Half Hip Girder	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:25 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-cQdBEw843DrNaKcCsUThPcniBb9GwmpqrYIkPxyCgKu

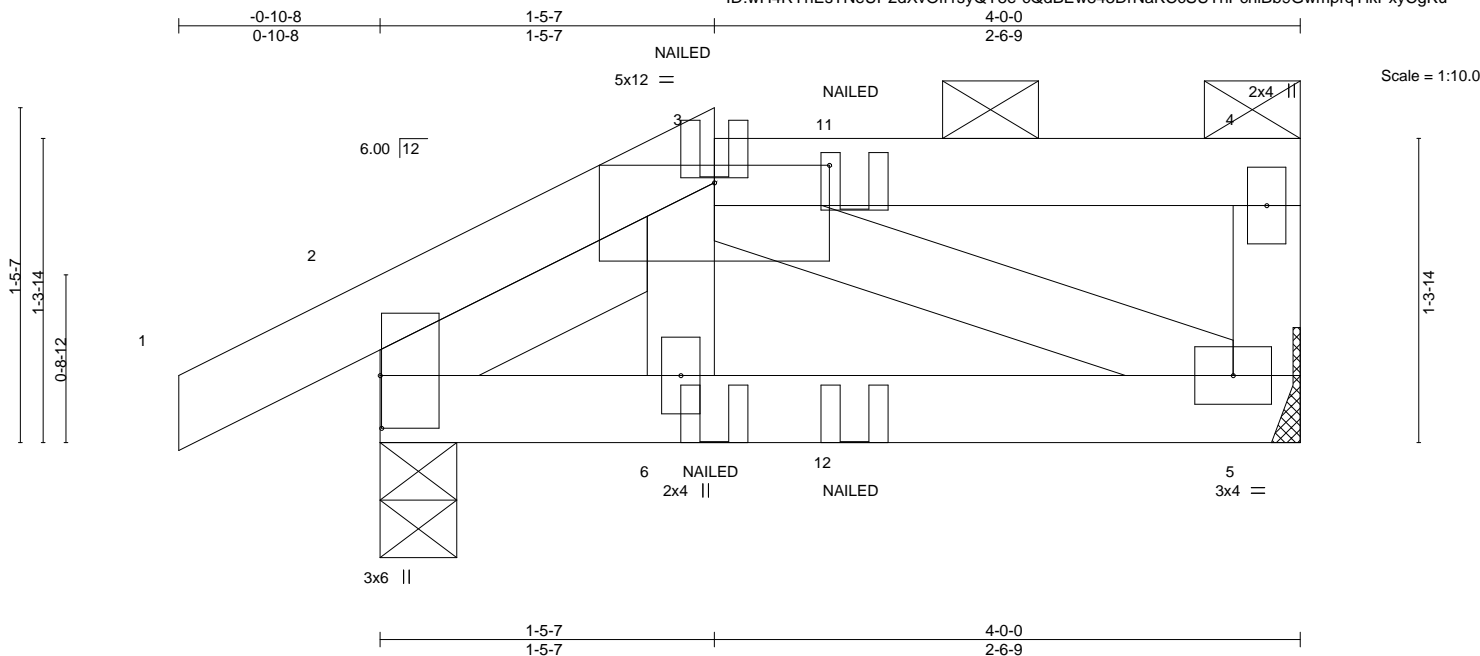


Plate Offsets (X,Y)--	[2:0-2-12,0-0-1], [3:0-6-0,0-0-15]								
<b>LOADING</b> (psf)	<b>SPACING</b>	2-0-0	<b>CSI</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15		TC 0.14	Vert(LL) -0.00	5-6	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL 1.15		BC 0.08	Vert(CT) -0.00	5-6	>999	180		
BCLL 0.0 *	Rep Stress Incr NO		WB 0.03	Horz(CT) 0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP					Weight: 17 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 WEBS 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 1-4-3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-4-0, 5=Mechanical  
 Max Horz 2=40(LC 7)  
 Max Uplift 2=-33(LC 8), 5=-25(LC 5)  
 Max Grav 2=303(LC 1), 5=209(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=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 2, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-3=-90, 3-4=-90, 5-7=-20  
 Concentrated Loads (lb)  
 Vert: 6=5(B) 12=-14(B)



December 4, 2020

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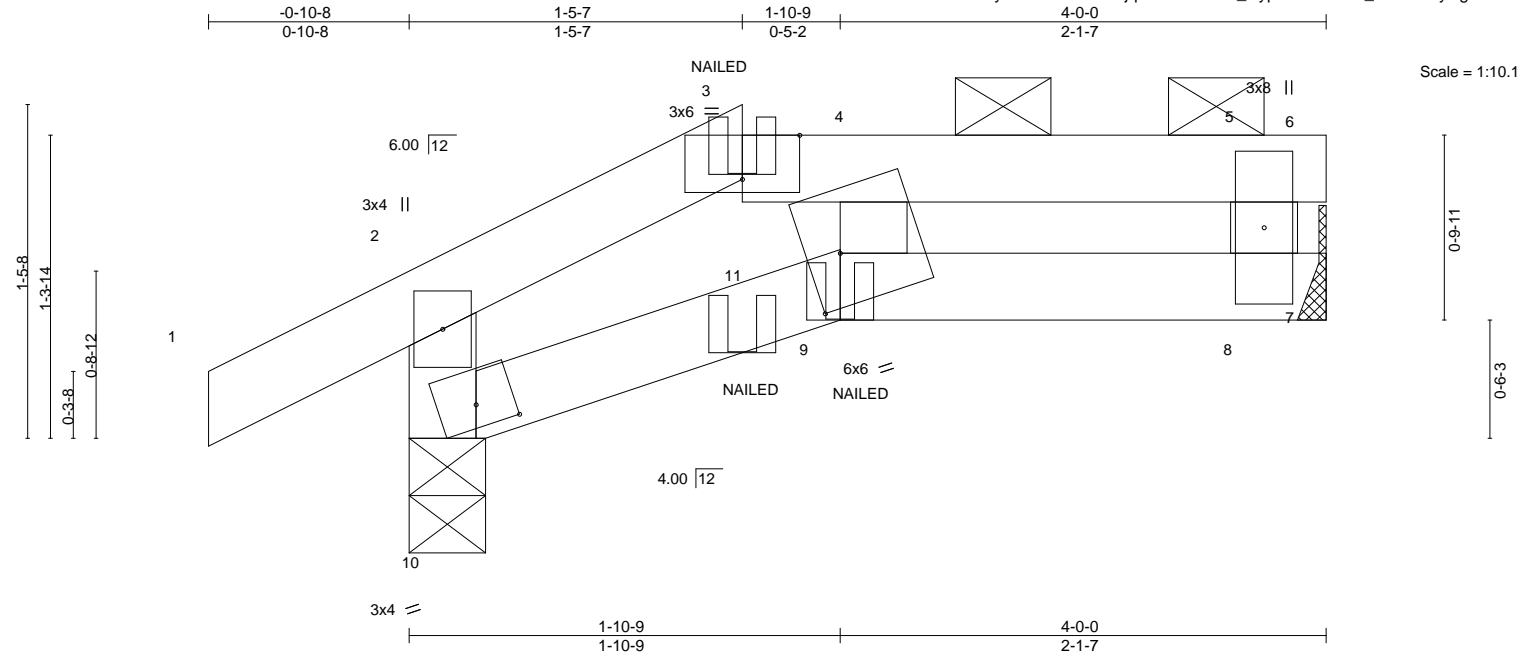
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853220
2552987	J07A	Half Hip Girder	1	1		
Job Reference (optional)						

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:26 2020 Page 1

ID:wH4RYhEstNeUP2dXvOfi1syQY8e-4cAZRG9jqWzECUno0C\_wypKs2?TYfDD\_2CVHxNyCgKt



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.20	Vert(LL)	-0.01	9	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	-0.02	9	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.02	Horz(CT)	0.01	8	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MR						Weight: 12 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SPF No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-6.
BOT CHORD 2x4 SPF No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SPF No.2	

**REACTIONS.** (size) 8=Mechanical, 10=0-4-0  
 Max Horz 10=38(LC 5)  
 Max Uplift 8=39(LC 5), 10=44(LC 8)  
 Max Grav 8=231(LC 1), 10=332(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-265/50, 2-10=-323/58

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TC DL=6.0psf; BCDL=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 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.
- 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 2-12d (0.148"x3.25") toe-nails per NDS guidelines.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-2=-90, 2-3=-90, 3-5=-90, 5-6=-40, 9-10=-20, 7-9=-20  
 Concentrated Loads (lb)  
 Vert: 9=-65(F) 11=5(F)



December 4, 2020

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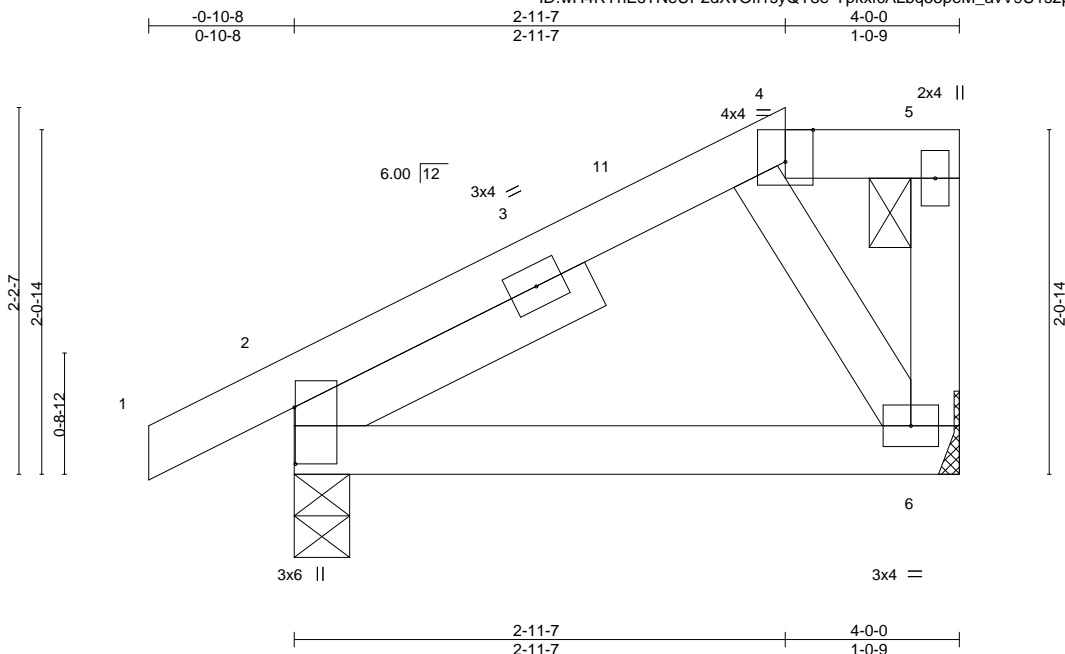
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2552987	Truss J08	Truss Type Half Hip	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853221
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:27 2020 Page 1

ID:WH4RYhEsTNeUP2dXvOfi1syQY8e-YpkxfALbq55peM\_avV9U1s2pPqOOgS8HsEqUpYcgKs



Scale = 1:13.9

Plate Offsets (X,Y)-- [2:0-4-1,0-0-1], [4:0-2-0,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.14	Vert(LL)	-0.01	6-9	>999	240	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	-0.02	6-9	>999	180	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	2	n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP						
								Weight: 17 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SPF No.2  
BOT CHORD 2x4 SPF No.2  
WEBS 2x4 SPF No.2  
SLIDER Left 2x4 SPF No.2 2-0-0

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 4-5.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-4-0, 6=Mechanical  
Max Horz 2=68(LC 11)  
Max Uplift 2=-34(LC 12), 6=-23(LC 9)  
Max Grav 2=300(LC 1), 6=203(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=6.0psf; 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 2-11-7, Exterior(2E) 2-11-7 to 3-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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) 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

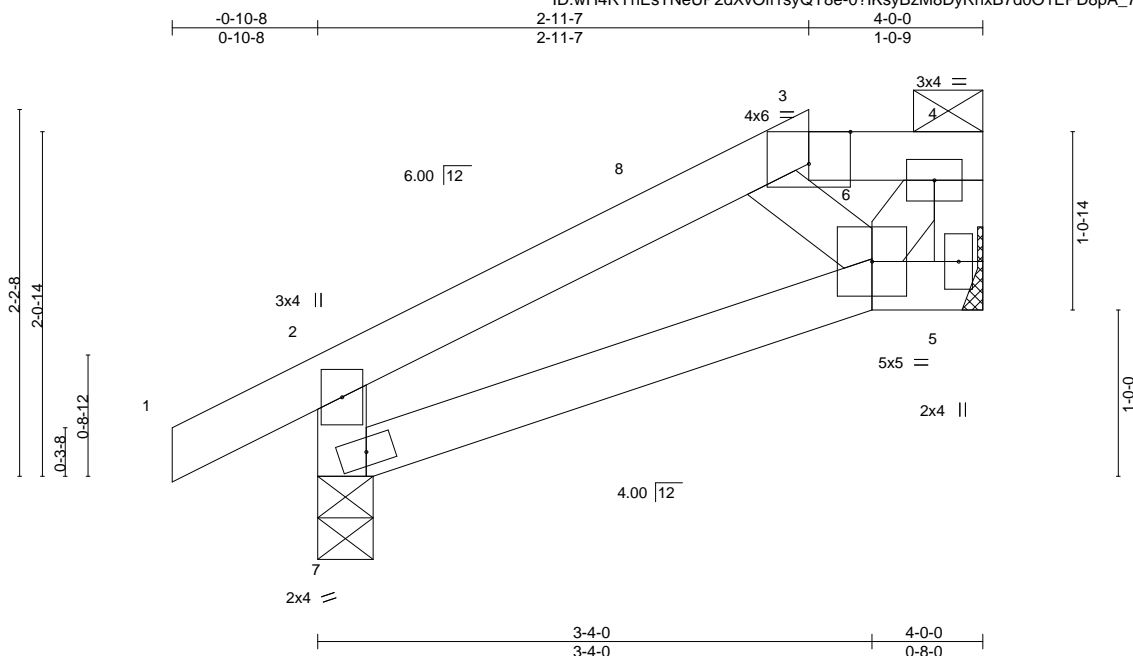
Job 2552987	Truss J08A	Truss Type Half Hip	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853222
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:28 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-0?IKsyBzM8DyRnxB7d0O1EPD8pA\_77RHHWW\_O0GyCgKr



Scale = 1:13.9

Plate Offsets (X,Y)--		[3:0-3:0,Edge]										
<b>LOADING</b>	(psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.16	Vert(LL)	-0.00	6-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	6-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-MS							Weight: 14 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, and 2-0-0 oc purlins: 3-4.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 5=Mechanical, 7=0-4-0  
Max Horz 7=59(LC 9)  
Max Uplift 5=23(LC 9), 7=33(LC 12)  
Max Grav 5=191(LC 1), 7=308(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-7=-311/166

#### 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=6.0psf; 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 2-11-7, Exterior(2E) 2-11-7 to 3-10-4 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Bearing at joint(s) 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 7.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020

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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



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Chesterfield, MO 63017

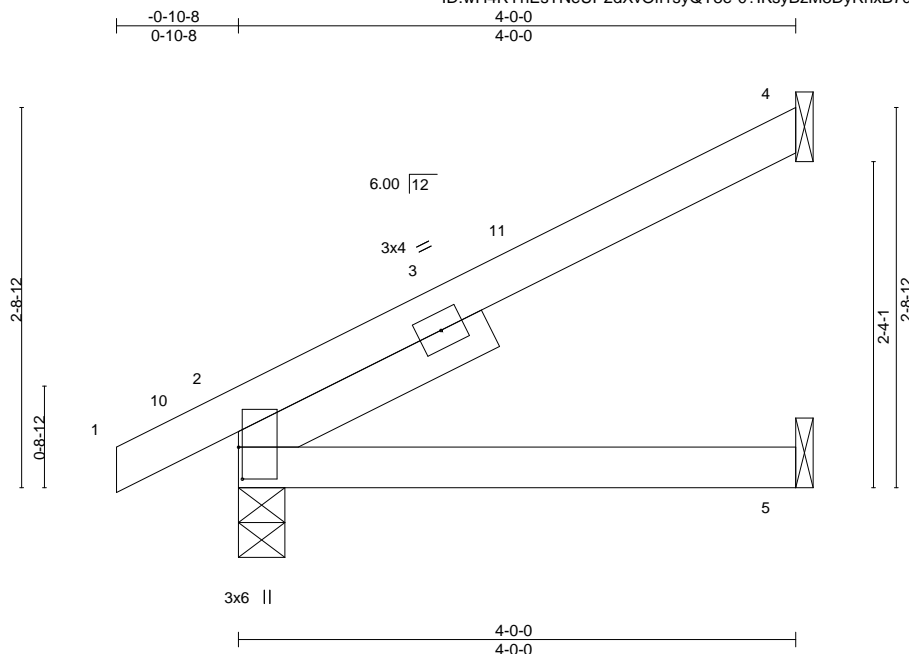
Job 2552987	Truss J09	Truss Type Jack-Open	Qty 8	Ply 1	Summit/19 Woodside Job Reference (optional)
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I43853223

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:28 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-0?IKsyBzM8DyRnxB7d0O1EPBcp9W77?HWW\_O0GyCgKr



Scale = 1:16.5

Plate Offsets (X,Y)-- [2:0-2-12,0-0-5]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 25.0	Plate Grip DOL	1.15	TC 0.26	Vert(LL)	0.02	5-8	>999
TCDL 20.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	-0.03	5-8	>999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a
BCDL 10.0	Code IRC2018/TPI2014		Matrix-MP				
				<b>PLATES</b>	<b>GRIP</b>		
				MT20	197/144		
				Weight: 13 lb	FT = 20%		

**LUMBER-**

TOP CHORD 2x4 SPF No.2  
 BOT CHORD 2x4 SPF No.2  
 SLIDER Left 2x4 SPF No.2 2-0-0

**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) 4=Mechanical, 2=0-4-0, 5=Mechanical  
 Max Horz 2=86(LC 12)  
 Max Uplift 4=55(LC 12), 2=17(LC 12)  
 Max Grav 4=150(LC 1), 2=304(LC 1), 5=76(LC 3)

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

**NOTES-**

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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 3-11-4 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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16023 Swingley Ridge Rd  
 Chesterfield, MO 63017





Job 2552987	Truss J10	Truss Type JACK-OPEN	Qty 4	Ply 1	Summit/19 Woodside I43853225
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:30 2020 Page 1					
Job Reference (optional) ID: wH4RYhEsTNeUP2dXvOfi1syQY8e-yOQ4HeCDuITgg54ZF13s6fUWqcqGb1VazqTU48yCgKp					



Scale = 1:13.3

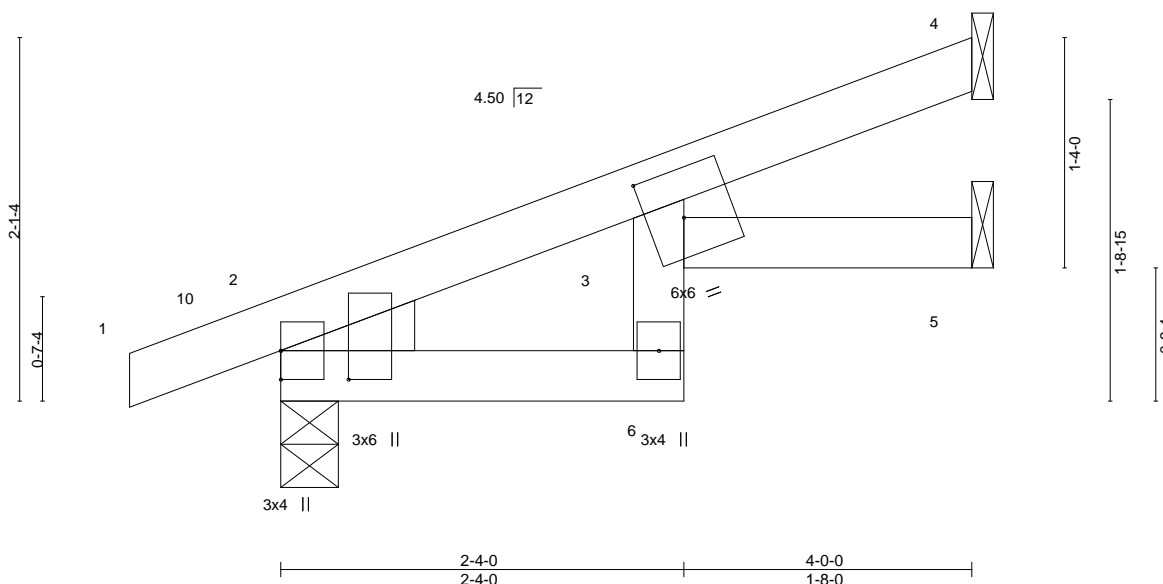


Plate Offsets (X,Y)-- [2:0-2-0,0-4-11], [3:0-2-8,0-3-5]												
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d				PLATES GRIP		
TCLL	25.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	-0.02	6	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.05	6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 13 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 4=Mechanical, 2=0-4-0, 5=Mechanical  
Max Horz 2=66(LC 8)  
Max Uplift 4=33(LC 12), 2=40(LC 8), 5=4(LC 12)  
Max Grav 4=128(LC 1), 2=305(LC 1), 5=81(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-1, Interior(1) 2-1-1 to 3-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J11	Truss Type Jack-Open	Qty 5	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853226
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:31 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-Qa\_SU\_Drf3bXIFflpla5ft1jL0AvKUlJCUC2dbyCgKo

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0-10-8  
4-0-0  
4-0-0

Scale = 1:13.3

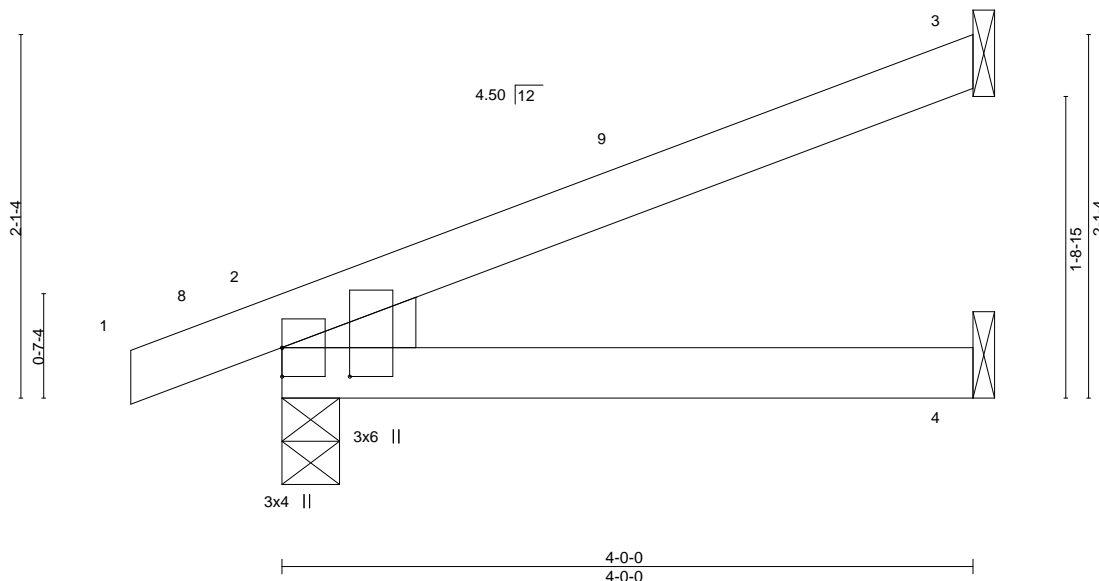


Plate Offsets (X,Y)-- [2:0-2-0,0-4-11]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	0.02	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-AS							Weight: 12 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (size) 3=Mechanical, 2=0-4-0, 4=Mechanical  
Max Horz 2=66(LC 8)  
Max Uplift 3=44(LC 12), 2=40(LC 8)  
Max Grav 3=147(LC 1), 2=304(LC 1), 4=77(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=6.0psf; 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 3-11-4 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



December 4, 2020

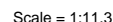
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:31 2020 Page 1  
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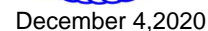


<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SPF No.2	TOP CHORD	Structural wood sheathing directly applied or 1-6-12 oc purlins, except end verticals.
BOT CHORD	2x4 SPF No.2		
WEBS	2x4 SPF No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

**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; TC DL=6.0psf; BC DL=6.0psf; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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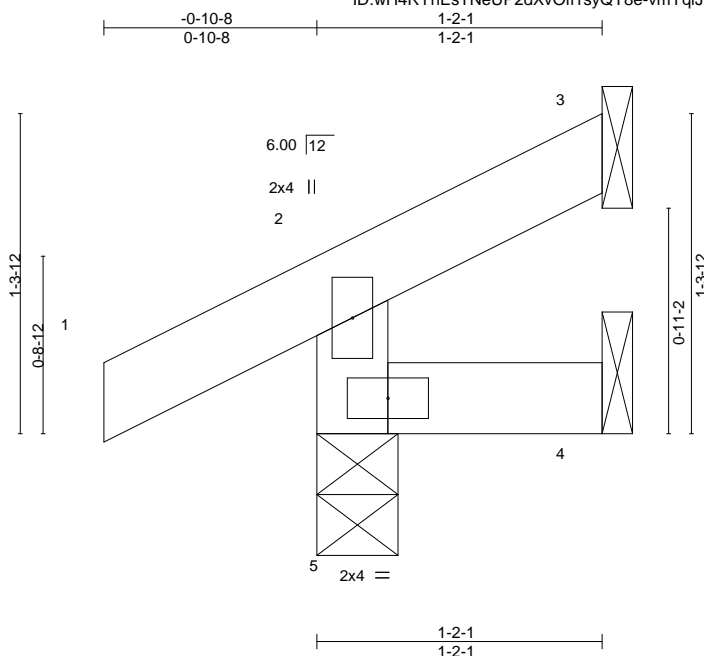
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss J13	Truss Type Jack-Open	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional) I43853228
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:32 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-vmYqiJETQMjOWPEyMS5KB4awGQZs3x?tR8yb91yCgKn



Scale = 1:9.5

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 0.09	Vert(LL)	0.00	5	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	0.00	5	>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-MR						Weight: 4 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-2-1 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 5=0-4-0, 3=Mechanical, 4=Mechanical  
Max Horz 5=30(LC 9)  
Max Uplift 5=20(LC 12), 3=13(LC 12), 4=2(LC 1)  
Max Grav 5=194(LC 1), 3=12(LC 19), 4=14(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=6.0psf; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 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.



December 4, 2020

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

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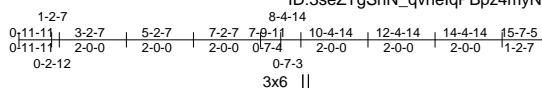
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside
2552987	LG01	GABLE	1	1	I43853229
Job Reference (optional)					

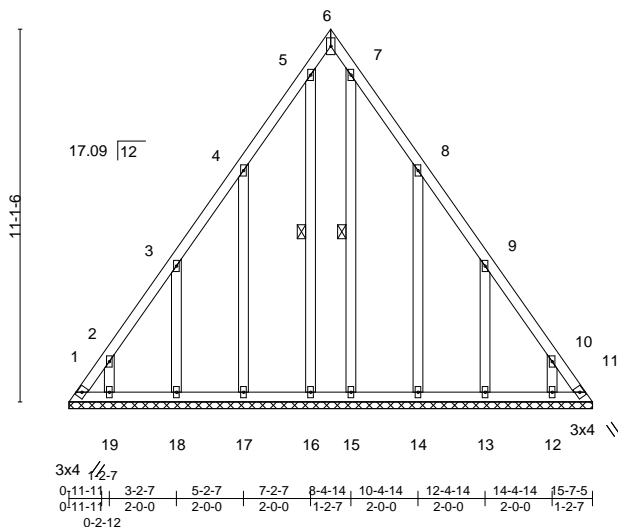
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:34 2020 Page 1

ID:3seZTgShN\_qvhelqPBpz4myNXMX-r9fb7?Fkx\_\_59iOKUt7oGVfGZEerXom9uSRIDwyCgKI



Scale = 1:68.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.10	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.01	11	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S					Weight: 97 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 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 5-16, 7-15

#### REACTIONS.

All bearings 15-7-5.  
(lb) - Max Horz 1=-277(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 16, 15 except 1=-215(LC 10), 11=-187(LC 11), 19=-148(LC 12), 18=-175(LC 12), 17=-195(LC 12), 12=-148(LC 13), 13=-175(LC 13), 14=-197(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 19, 16, 12, 15 except 1=423(LC 12), 11=406(LC 13), 18=272(LC 19), 17=280(LC 19), 13=272(LC 20), 14=282(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-517/387, 2-3=-375/275, 9-10=-354/275, 10-11=-497/387  
BOT CHORD 1-19=-218/296, 18-19=-218/296, 17-18=-218/296, 16-17=-218/296, 15-16=-218/296, 14-15=-218/296, 13-14=-218/296, 12-13=-218/296, 11-12=-218/296  
WEBS 3-18=-264/200, 4-17=-286/219, 9-13=-264/200, 8-14=-286/221

#### 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-6 to 3-2-7, Interior(1) 3-2-7 to 7-9-11, Exterior(2R) 7-9-11 to 10-9-11, Interior(1) 10-9-11 to 15-3-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 15 except (jt=lb) 1=215, 11=187, 19=148, 18=175, 17=195, 12=148, 13=175, 14=197.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss LG03	Truss Type GABLE	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)
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I43853230

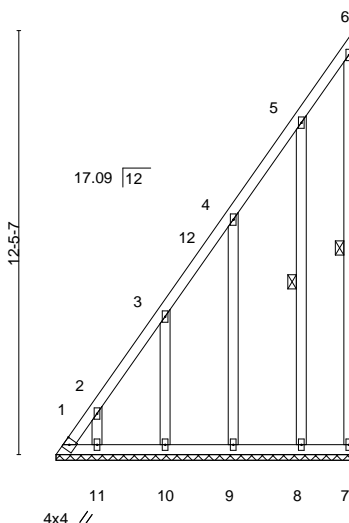
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:34 2020 Page 1

ID:3seZTgShN\_qvhelqPBpz4myNXMX-r9fb7?Fkx\_\_59iOKUt7oGVfFoEEJXop9uSRIDwyCgKI

1-2-7	3-2-7	5-2-7	7-2-7	8-8-15
1-2-7	2-0-0	2-0-0	2-0-0	1-6-8

Scale = 1:67.7



1-2-7	3-2-7	5-2-7	7-2-7	8-8-15
1-2-7	2-0-0	2-0-0	2-0-0	1-6-8

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)	n/a	-	n/a	999	MT20
TCDL 20.0	Lumber DOL	1.15	BC 0.02	Vert(CT)	n/a	-	n/a	999	197/144
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.24	Horz(CT)	0.00		n/a	n/a	
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						
									Weight: 65 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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-7, 5-8

**REACTIONS.**

All bearings 8-8-15.  
 (lb) - Max Horz 1=434(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 7 except 1=248(LC 10), 11=147(LC 12), 10=178(LC 12), 9=178(LC 12), 8=158(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 7, 11, 8 except 1=602(LC 12), 10=274(LC 19), 9=273(LC 19)

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

TOP CHORD 1-2=-782/679, 2-3=-614/553, 3-4=-409/386  
 WEBS 3-10=-283/236, 4-9=-283/202, 5-8=-253/181

**NOTES-**

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-3-6 to 4-6-4, Exterior(2R) 4-6-4 to 8-7-3 zone; cantilever left and right exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) All plates are 2x4 MT20 unless otherwise indicated.
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 1=248, 11=147, 10=178, 9=178, 8=158.
- 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.



December 4, 2020

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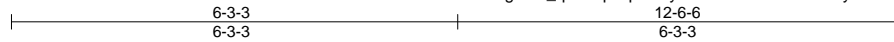
16023 Swingley Ridge Rd  
 Chesterfield, MO 63017

Job 2552987	Truss LG04	Truss Type GABLE	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853231
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Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:35 2020 Page 1  
ID:3seZTgShN\_qvhelqPBpz4myNXMX-JLDzKLGMIH6ynszX2be1pJCRlIdaKGlwJ76AFmMyCgKk



3x6 =

Scale = 1:32.3

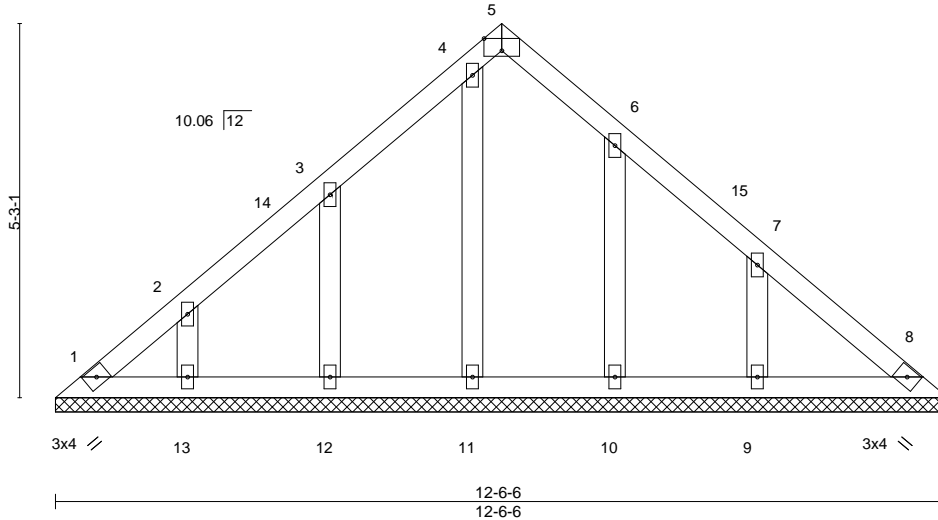


Plate Offsets (X,Y)--		[5:0-3-0,Edge]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a		
BCDL	10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 47 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 12-6-6.  
(lb) - Max Horz 1=-115(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 13, 12, 10 except 9=-101(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 8, 13, 12, 11, 10 except 9=285(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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 6-3-3, Exterior(2R) 6-3-3 to 9-3-3, Interior(1) 9-3-3 to 12-1-9 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6-0 tall by 2'-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13, 12, 10 except (jt=lb) 9=101.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853232
2552987	LG05	GABLE	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:36 2020 Page 1

ID:3seZTgShN\_qvheIqPBpz4myNXMX-nYnLYhH\_TbEpO0YjblAGLwkbY1wC?ILSLmwpIoyCgKj

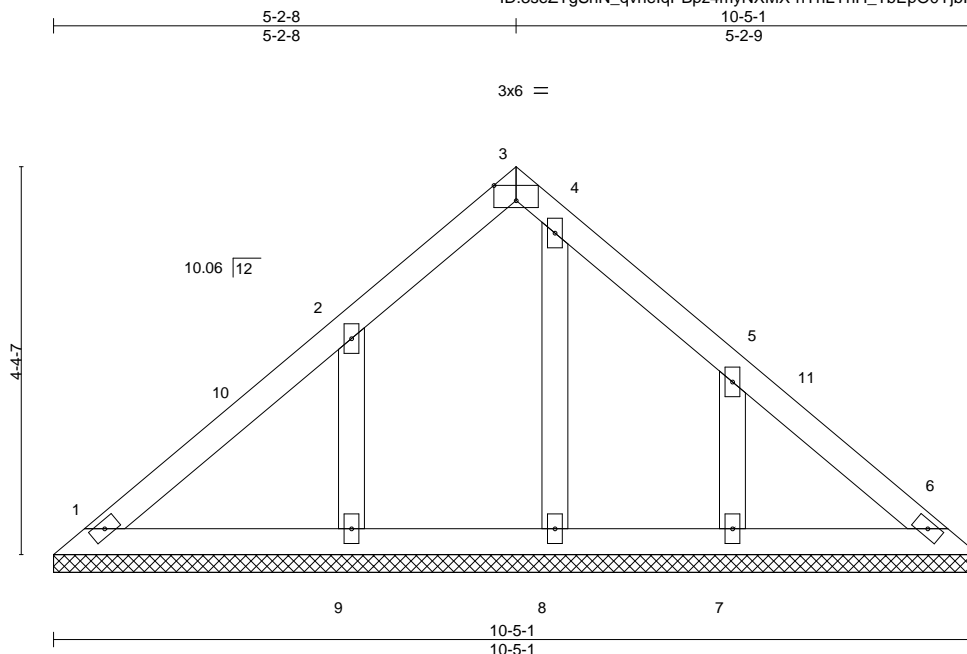


Plate Offsets (X,Y)-- [3:0-3:0,Edge]												
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d				<b>PLATES</b>	<b>GRIP</b>	
TCLL	25.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	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  
WEBS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

All bearings 10-5-1.  
(lb) - Max Horz 1=95(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) except 7=110(LC 13), 9=112(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 6, 8 except 7=302(LC 20), 9=358(LC 19)

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

WEBS 2-9=282/181

#### 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-4, Interior(1) 3-4-4 to 5-2-8, Exterior(2R) 5-2-8 to 8-2-8, Interior(1) 8-2-8 to 10-0-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 7 and 112 lb uplift at joint 9.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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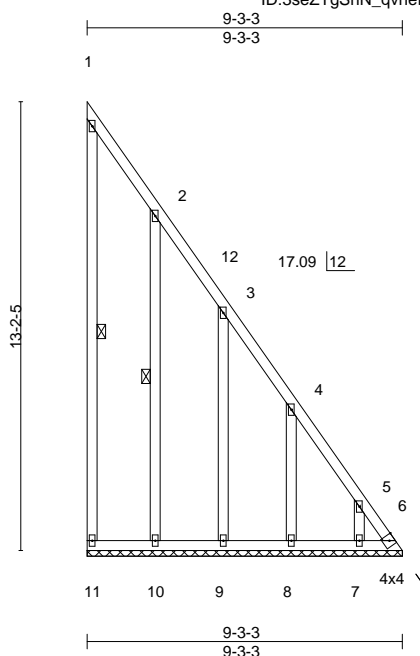
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss LG06	Truss Type GABLE	Qty 1	Ply 1	Summit/19 Woodside I43853233
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:37 2020 Page 1

ID:3seZTgShN\_qvhelqPBpz4myNXMX-FkLjl1cEvMg0A7v90hVu8Hm\_RF9k9bcaQfMqEyCgKi



Scale = 1:67.7

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 0.16	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 0.23	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 68 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 9-3-15 oc bracing.  
WEBS 1 Row at midpt 1-11, 2-10

#### REACTIONS.

All bearings 9-3-3.  
(lb) - Max Horz 11=-412(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 11 except 6=-259(LC 11), 10=-110(LC 13), 9=-161(LC 13), 8=-181(LC 13), 7=-148(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 11, 7 except 6=565(LC 13), 10=279(LC 20), 9=265(LC 20), 8=275(LC 20)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-258/260, 3-4=-431/418, 4-5=-610/584, 5-6=-745/705  
BOT CHORD 10-11=-405/442, 9-10=-405/442, 8-9=-405/442, 7-8=-405/442, 6-7=-405/442  
WEBS 2-10=-287/197, 3-9=-273/187, 4-8=-284/207

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 8-11-13 zone; cantilever left and right exposed; end vertical 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11 except (jt=lb) 6=259, 10=110, 9=161, 8=181, 7=148.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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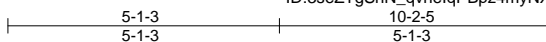
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss LG07	Truss Type GABLE	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853234
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

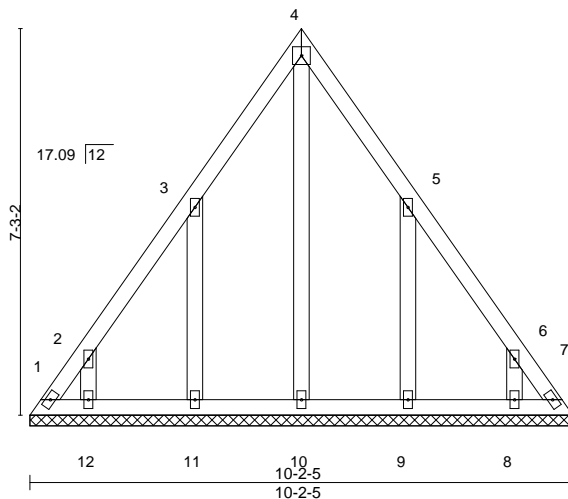
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:38 2020 Page 1

ID:3seZTgShN\_qvhelqPBpz4myNXMX-jwv6yNIE?CUXeKi6jjCkRLqy\_rc7Te\_ip4PwNhyCgKh



4x4 =

Scale = 1:43.3



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.00	7	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 49 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 10-2-5.  
(lb) - Max Horz 1=177(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) except 1=123(LC 10), 7=102(LC 11), 11=188(LC 12),  
12=144(LC 12), 9=187(LC 13), 8=145(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 12, 8 except 11=291(LC 19), 9=290(LC 20)

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

TOP CHORD 1-2=-289/203, 6-7=-273/203  
WEBS 3-11=-289/213, 5-9=-289/212

#### 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-6 to 3-1-3, Interior(1) 3-1-3 to 5-1-3, Exterior(2R) 5-1-3 to 8-1-3, Interior(1) 8-1-3 to 9-10-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 1, 102 lb uplift at joint 7, 188 lb uplift at joint 11, 144 lb uplift at joint 12, 187 lb uplift at joint 9 and 145 lb uplift at joint 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.



December 4, 2020

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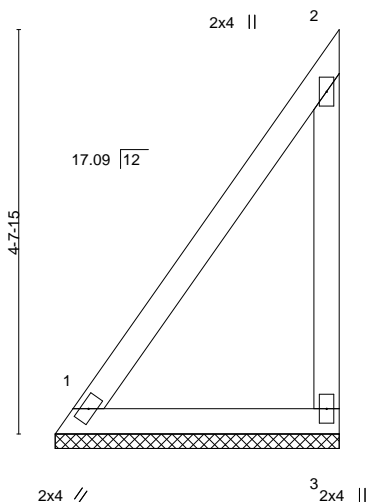
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss LG08	Truss Type Lay-In Gable	Qty 1	Ply 1	Summit/19 Woodside I43853235
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:39 2020 Page 1  
ID:3seZTgShN\_qvheIqPBpz4myNXMX-B6TUAJsmWcOFUHIHQjzzZM4oFweC6kv2k8Tv7yCgKg

3-3-5  
3-3-5

Scale = 1:26.6



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 0.26	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 14 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=3-3-5, 3=3-3-5  
Max Horz 1=144(LC 11)  
Max Uplift 1=30(LC 8), 3=-97(LC 9)  
Max Grav 1=205(LC 20), 3=209(LC 19)

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

TOP CHORD 1-2=-228/254, 2-3=-284/214

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1 and 97 lb uplift at joint 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.



December 4,2020

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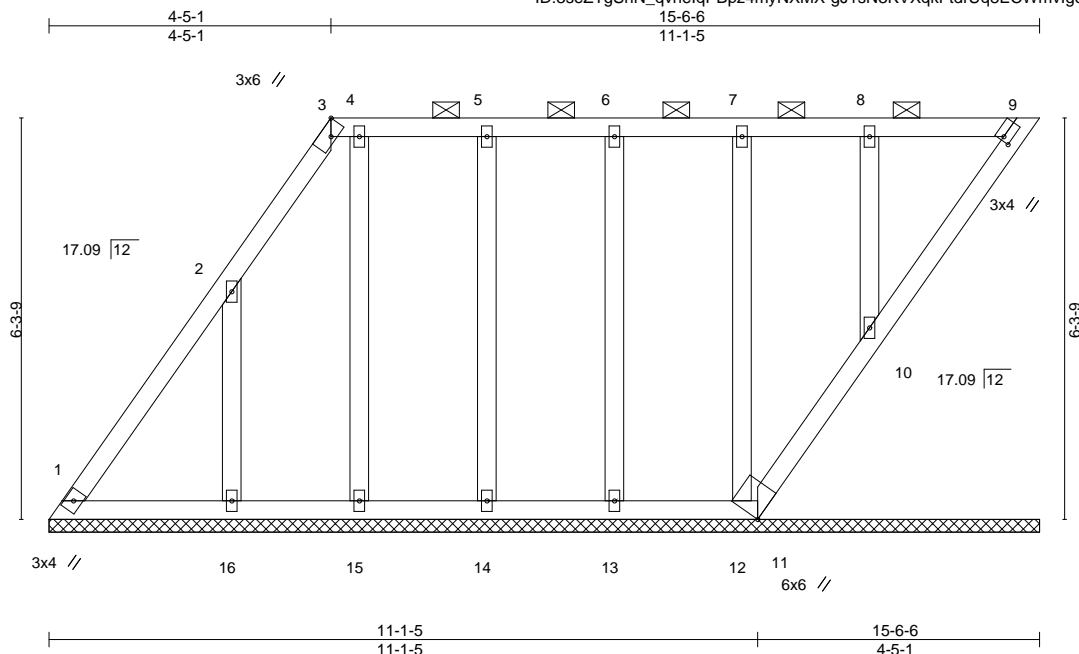
16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss LG09	Truss Type GABLE	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853236
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:40 2020 Page 1  
ID:3seZTgShN\_qvheIqPBpZ4myNXMX-gJ1sN3KVXqkFtdrUq8ECWmvIgeHLxY52GOu0RZyCgKf



Scale = 1:36.1

Plate Offsets (X,Y)--		[3:0-2-14,Edge], [9:0-0-12,0-1-8], [11:0-1-7,0-1-0], [12:0-1-0,0-1-7]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>
TCLL 25.0	2-0-0	TC 0.13	in (loc) l/defl L/d
TCDL 20.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) n/a - n/a 999
BCLL 0.0 *	Lumber DOL 1.15	WB 0.12	Vert(CT) n/a - n/a 999
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) -0.00 9 n/a n/a
	Code IRC2018/TPI2014		
		<b>PLATES</b>	<b>GRIP</b>
		MT20	197/144
		Weight: 76 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.): 3-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

All bearings 15-6-6.  
(lb) - Max Horz 1=220(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 9, 11, 15, 14, 13, 12, 10 except 16=232(LC 12)  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 11, 15, 14, 13, 12 except 16=360(LC 19), 10=283(LC 1)

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

**WEBS** 2-16=331/248

#### 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-6 to 3-3-6, Interior(1) 3-3-6 to 4-5-1, Exterior(2R) 4-5-1 to 7-5-1, Interior(1) 7-5-1 to 15-3-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 11, 15, 14, 13, 12, 10 except (jt=lb) 16=232.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 9, 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

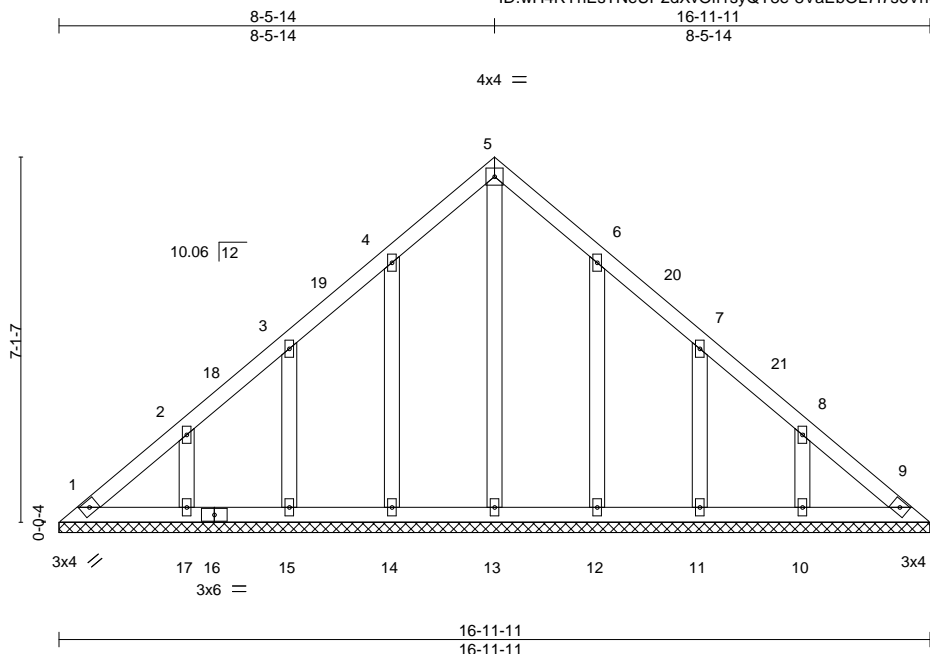
Job 2552987	Truss LG10	Truss Type GABLE	Qty 1	Ply 1	Summit/19 Woodside I43853237
Job Reference (optional)					

Builders FirstSource (Valley Center),

Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:41 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-8VaEbOL7I7s6VnQgOriR2\_SSL2dpg\_FBV2daz0yCgKe



Scale = 1:44.9

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	9	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 73 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 16-11-11.  
(lb) - Max Horz 1=159(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 14, 15, 17, 12, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 14, 15, 12, 11 except 17=267(LC 19), 10=266(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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 8-5-14, Exterior(2R) 8-5-14 to 11-5-14, Interior(1) 11-5-14 to 16-6-14 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9, 14, 15, 17, 12, 11, 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.



December 4, 2020

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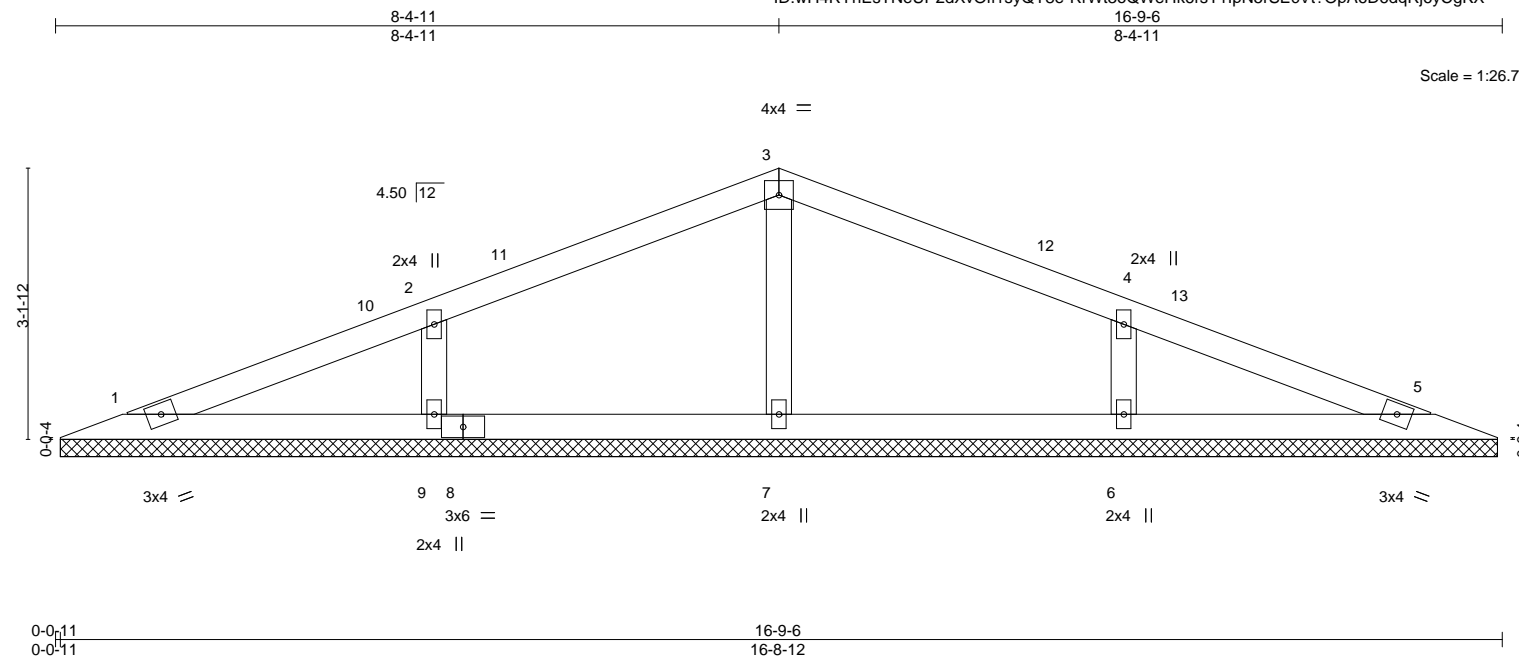
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 2552987	Truss V1	Truss Type Valley	Qty 1	Ply 1	Summit/19 Woodside I43853238
Builders FirstSource (Valley Center), Valley Center, KS - 67147,					

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:48 2020 Page 1  
ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-RrWt3oQWeHk6rsT1pN5rSEcVt?OpA6D6dqRj6yCgKX



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S							
									Weight: 43 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

All bearings 16-8-1.  
(lb) - Max Horz 1=45(LC 12)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 9, 6  
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=379(LC 1), 9=494(LC 25), 6=494(LC 26)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-7=-305/66, 2-9=-402/150, 4-6=-402/150

#### 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-1 to 3-10-1, Interior(1) 3-10-1 to 8-4-11, Exterior(2R) 8-4-11 to 11-4-11, Interior(1) 11-4-11 to 15-11-6 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6"-0 tall by 2'-0"-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 9, 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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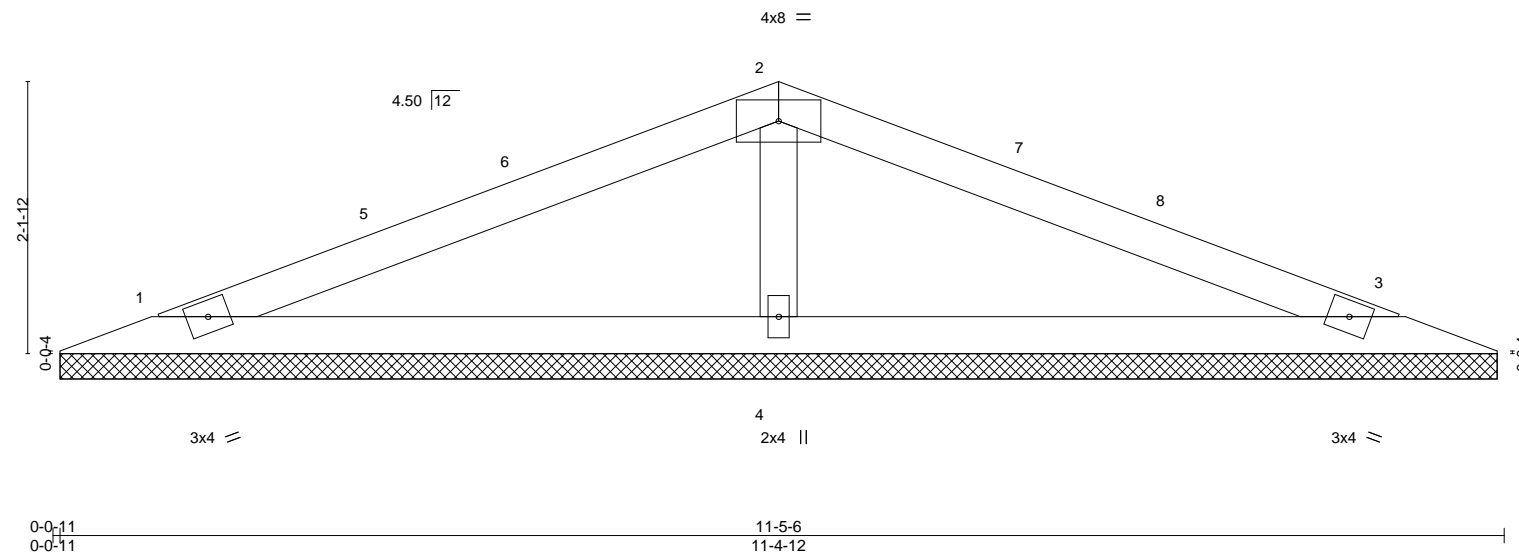
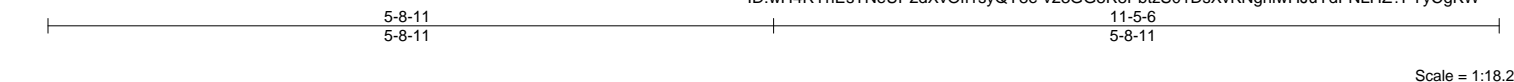
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	Summit/19 Woodside	I43853239
2552987	V2	Valley	1	1	Job Reference (optional)	

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

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:49 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOf1syQY8e-v23GG8R8PbtzS01DsXvKNgnlwHJuYdFNLHZ?FYyCgKW



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.41	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	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  
OTHERS 2x4 SPF No.2

#### BRACING-

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

#### REACTIONS.

(size) 1=11-4-1, 3=11-4-1, 4=11-4-1  
Max Horz 1=29(LC 16)  
Max Uplift 1=31(LC 12), 3=36(LC 13), 4=21(LC 8)  
Max Grav 1=241(LC 25), 3=241(LC 26), 4=605(LC 1)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-4=-450/179

#### 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=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-10-1 to 3-10-1, Interior(1) 3-10-1 to 5-8-11, Exterior(2R) 5-8-11 to 8-8-11, Interior(1) 8-8-11 to 10-7-6 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.



December 4, 2020

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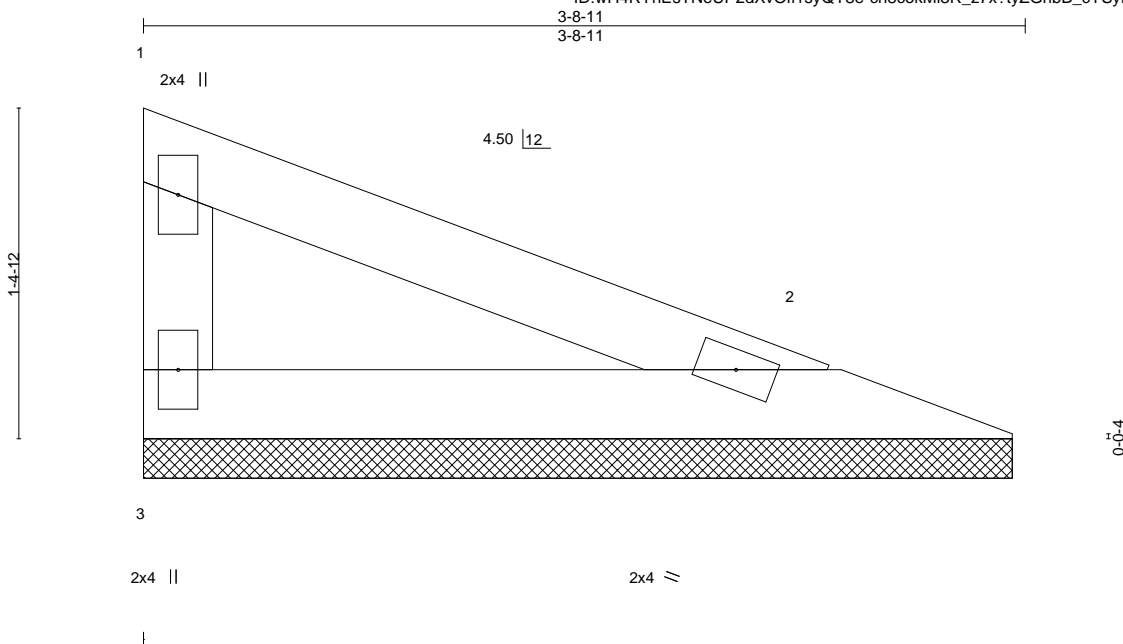
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss V03	Truss Type VALLEY	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853240
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:42 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-ch8cokMI3R\_z7x?tyZGhbB\_cYSyRPSTLkIn7WSyCgKd



Scale = 1:9.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
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-P						Weight: 9 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-8-11 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 3=3-8-0, 2=3-8-0  
Max Horz 3=-42(LC 8)  
Max Uplift 3=-21(LC 13), 2=-14(LC 13)  
Max Grav 3=151(LC 1), 2=151(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=6.0psf; 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 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.



December 4, 2020

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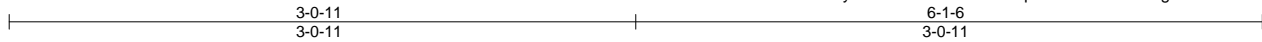
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss V3	Truss Type Valley	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853241
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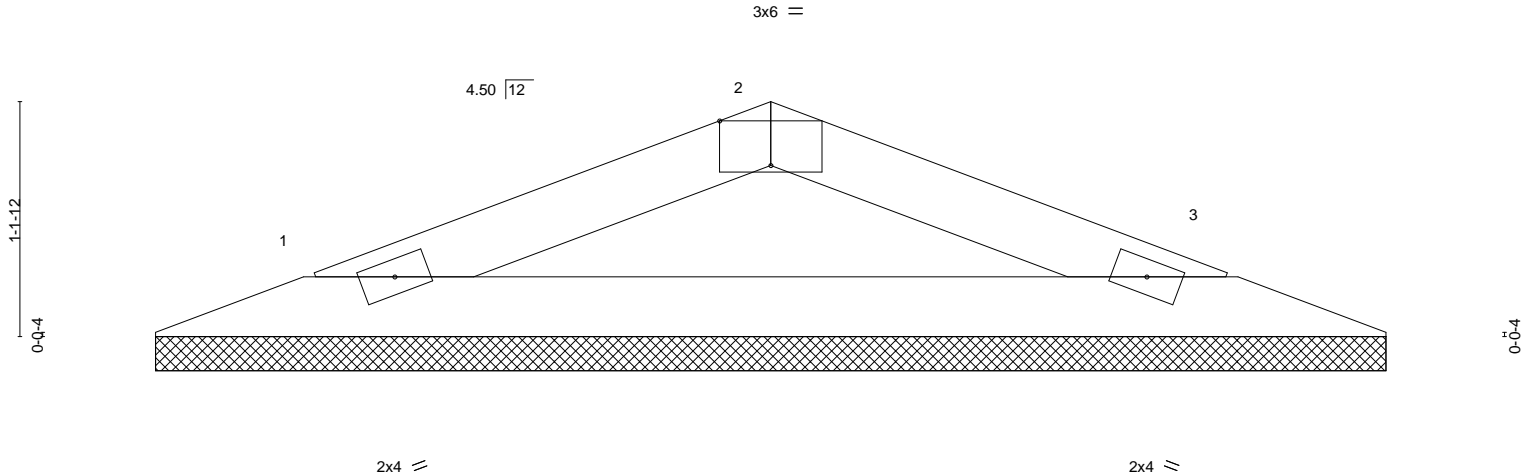
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:50 2020 Page 1

ID: wH4RYhEsTNeUP2dXvOfi1syQY8e-NEdeUTSmAu?q4AcPQEQZwtJ?SgfuH4SWaxJYo\_yCgKV



Scale = 1:11.2



0-0-11 0-0-11	6-1-6 6-0-12
Plate Offsets (X,Y)--	[2:0-3-0,Edge]
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0
TCLL 25.0	Plate Grip DOL 1.15
TCDL 20.0	Lumber DOL 1.15
BCLL 0.0 *	Rep Stress Incr YES
BCDL 10.0	Code IRC2018/TPI2014
	<b>CSI.</b>
	TC 0.11
	BC 0.23
	WB 0.00
	Matrix-P
	<b>DEFL.</b>
	in (loc) l/defl L/d
	Vert(LL) n/a - n/a 999
	Vert(CT) n/a - n/a 999
	Horz(CT) 0.00 3 n/a n/a
	<b>PLATES</b> MT20
	<b>GRIP</b> 197/144
	Weight: 12 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 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=6-0-1, 3=6-0-1  
Max Horz 1=-13(LC 17)  
Max Uplift 1=-18(LC 12), 3=-18(LC 13)  
Max Grav 1=244(LC 1), 3=244(LC 1)

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

TOP CHORD 1-2=-309/179, 2-3=-309/185  
BOT CHORD 1-3=-143/263

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017



Job 2552987	Truss V04	Truss Type GABLE	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853242
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:43 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-4ui\_04MNql6qk5a3WGow8PXIXsl\_8vxUyM6h2uyCgKc

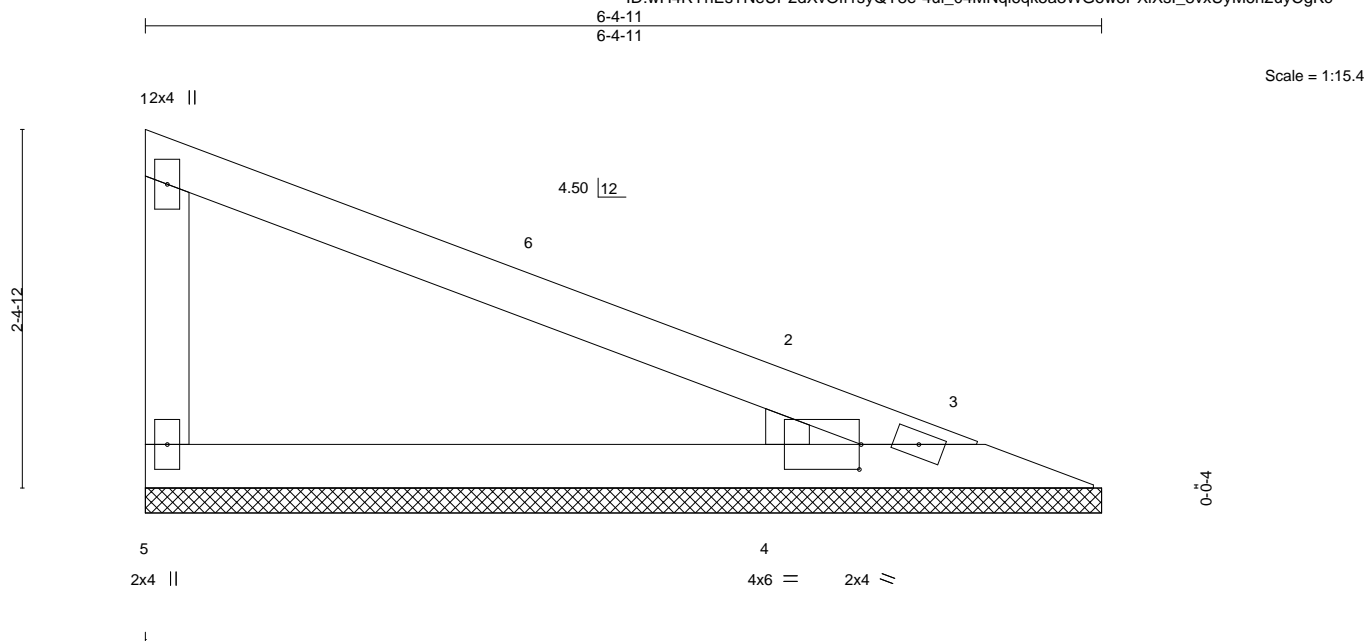


Plate Offsets (X,Y)--		[2:0-1-12,0-0-10], [4:0-0-2,0-2-0], [4:0-1-12,0-0-0]	
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>
TCLL 25.0	Plate Grip DOL	1.15	TC 0.28
TCDL 20.0	Lumber DOL	1.15	BC 0.12
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P
			<b>DEFL.</b>
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 3 n/a n/a
			<b>PLATES</b> <b>GRIP</b>
			MT20 197/144
			Weight: 16 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 5=6-4-11, 3=6-4-11, 4=6-4-11  
Max Horz 5=-82(LC 8)  
Max Uplift 5=-24(LC 13), 3=-78(LC 1), 4=-80(LC 13)  
Max Grav 5=183(LC 1), 3=36(LC 13), 4=489(LC 1)

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

WEBS 2-4=-400/244

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-3-8, Interior(1) 4-3-8 to 5-6-10 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
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss V05	Truss Type VALLEY	Qty 1	Ply 1	Summit/19 Woodside I43853243
Job Reference (optional)					

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

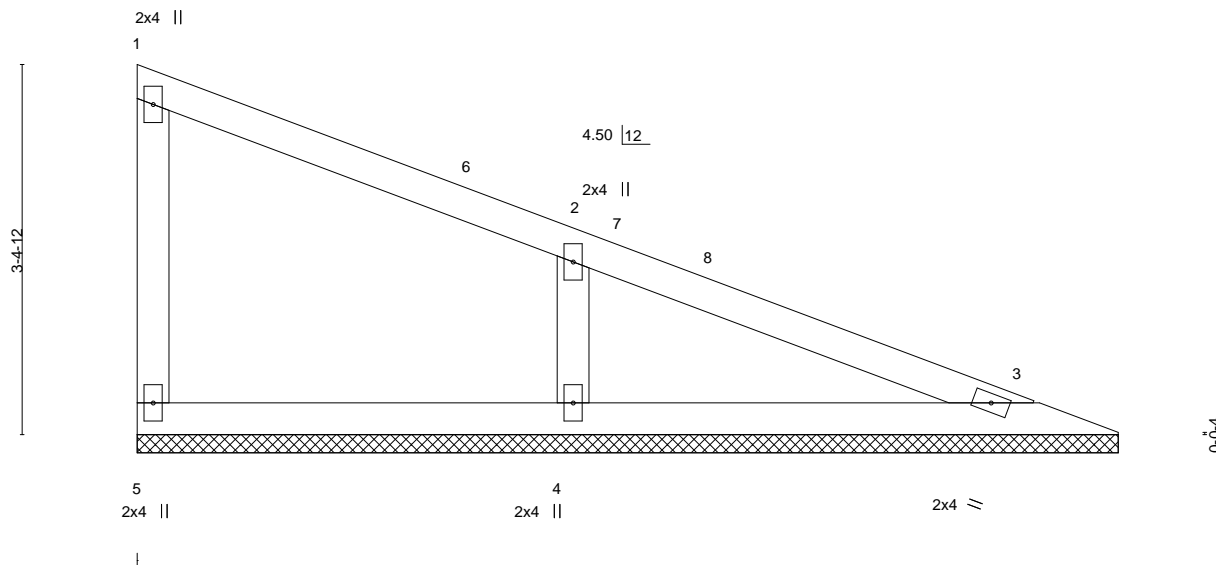
8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:44 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-Y4GNDQN?b2EhMF9F3\_J9gc4wpGdvtM4eB0sEaKyCgKb

9-0-11

9-0-11

Scale = 1:21.1



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 0.31	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.13	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-S						Weight: 25 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 5=9-0-0, 3=9-0-0, 4=9-0-0  
Max Horz 5=-122(LC 8)  
Max Uplift 5=-16(LC 8), 3=-2(LC 13), 4=-75(LC 9)  
Max Grav 5=161(LC 1), 3=185(LC 1), 4=542(LC 1)

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

WEBS 2-4=-434/201

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 4-4-11, Interior(1) 4-4-11 to 8-2-10 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
- 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) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 3, 4.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 4, 2020

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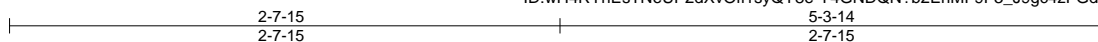
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss V06	Truss Type VALLEY	Qty 1	Ply 1	Summit/19 Woodside Job Reference (optional)	I43853244
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Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:44 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOfi1syQY8e-Y4GNDQN?b2EhMF9F3\_J9gc4zFGd8tMzeB0sEaKyCgKb



3x6 =

Scale = 1:11.1

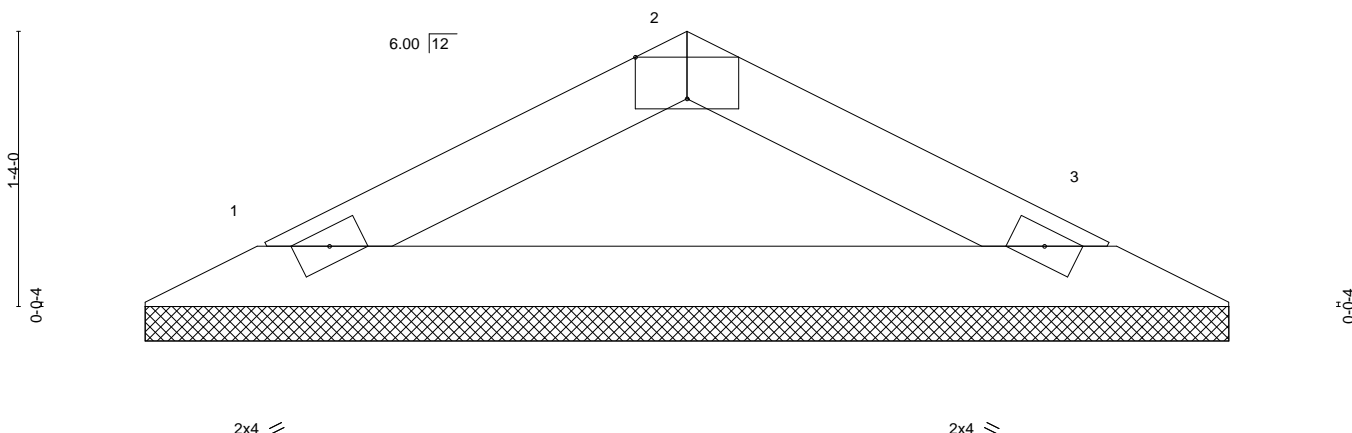


Plate Offsets (X,Y)--	[2-0-3-0,Edge]	5-3-6	5-3-6	5-3-14	0-0-8
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LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	Plate Grip DOL	2-0-0	TC 0.09	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.18	Vert(CT)	n/a	-	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: 11 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=5-2-14, 3=5-2-14  
Max Horz 1=-16(LC 13)  
Max Uplift 1=-16(LC 12), 3=-16(LC 13)  
Max Grav 1=223(LC 1), 3=223(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=6.0psf; 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.



December 4, 2020

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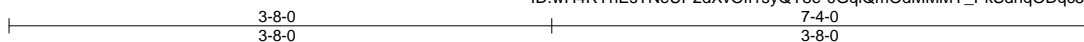
16023 Swingley Ridge Rd  
Chesterfield, MO 63017

Job 2552987	Truss V07	Truss Type VALLEY	Qty 1	Ply 1	Summit/19 Woodside I43853245
Job Reference (optional)					

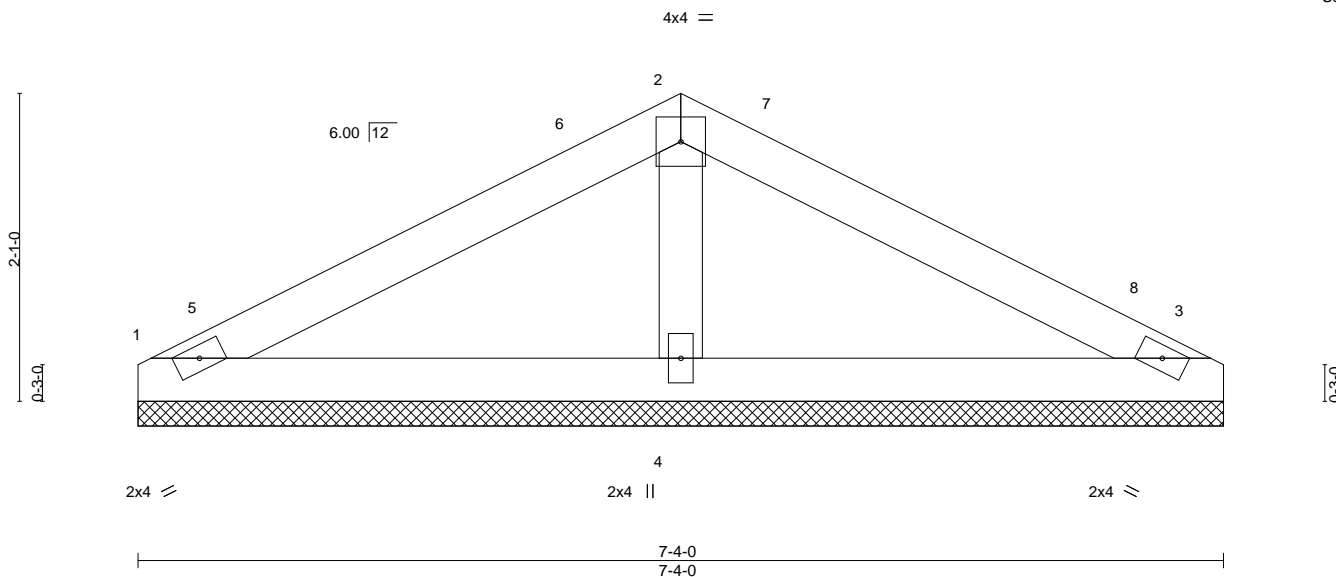
Builders FirstSource (Valley Center), Valley Center, KS - 67147,

8.240 s Mar 9 2020 MiTek Industries, Inc. Thu Dec 3 12:45:45 2020 Page 1

ID:wH4RYhEsTNeUP2dXvOf1syQY8e-0GqlQmOdMMMY\_PkSdhqODqc5rfzacpdnQgbn6nyCgKa



Scale = 1:15.6



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 0.29	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2018/TPI2014		Matrix-P						Weight: 19 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(size) 1=7-4-0, 3=7-4-0, 4=7-4-0  
Max Horz 1=28(LC 16)  
Max Uplift 1=29(LC 12), 3=34(LC 13)  
Max Grav 1=200(LC 1), 3=200(LC 1), 4=375(LC 1)

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

WEBS 2-4=-286/145

#### 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=6.0psf; 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 3-8-0, Exterior(2R) 3-8-0 to 6-8-0, Interior(1) 6-8-0 to 7-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 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.



December 4, 2020

**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



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## General Safety Notes

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