

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

Re: 2935806 Summit/35 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: I47990012 thru I47990073

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

Missouri COA: Engineering 001193



September 21,2021

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



16023 Swingley Ridge Rd Chesterfield, MO 63017



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	10-1- <u>3-3-8</u> 6-7-8 7 <sub>7</sub> 3-9 9-8-12 <u>3-3-8</u> 3-4-0 0-8-1 2-5-3 0-5-	12 13-8-0   16-0-0   D 3-6-4 2-4-0	24-0-0 8-0-0	<u>30-4-4</u> 6-4-4	32-9-7 36- 2-5-3 3-1	-8-8 40-0-0 11-1 3-3-8		
Plate Offsets (X,Y)	[2:0-4-4,Edge], [11:0-4-4,Edge], [20:0-3	-0,0-0-8], [29:0-3-0,0-0-0]						
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	CSI. TC 0.91 BC 0.89 WB 1.00 Matrix-AS	<b>DEFL.</b> ir Vert(LL) -0.31 Vert(CT) -0.76 Horz(CT) 0.49	n (loc) l/defl 19-20 >999 17-19 >628 11 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 238 lb	<b>GRIP</b> 197/144 FT = 20%	
LUMBER- TOP CHORD 2x6 SF BOT CHORD 2x4 SF 2-26,1 WEBS 2x4 SF	PF No.2 PF 1650F 1.5E *Except* 1-16: 2x6 SP 2400F 2.0E, 28-29,22-28,2 PF No.2	20-22: 2x4 SPF No.2	BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathing directly applied, except 2-0-0 oc purlins (3-6-8 max.): 6-7. Rigid ceiling directly applied. Except: 9-11-0 oc bracing: 29-30 10-0-0 oc bracing: 13-15 1 Row at midpt 6-17, 8-17				
REACTIONS.       (size)       2=0-3-8, 11=0-3-8         Max Horz       2=-147(LC 13)         Max Uplift       2=-319(LC 12), 11=-319(LC 13)         Max Grav       2=2279(LC 1), 11=2279(LC 1)								
FORCES. (lb) - Max. TOP CHORD 2-4=- 8-9=-	Comp./Max. Ten All forces 250 (lb) or -6484/973, 4-5=-4532/647, 5-6=-3453/50 -4617/615, 9-11=-6557/872	less except when shown. 05, 6-7=-3020/498, 7-8=-34	55/504,					
BOT CHORD 2-30 24-2 15-1	=-932/5800, 27-30=-428/2121, 26-27=-3 25=-495/3751, 20-24=-495/3751, 19-20= 7=-391/4013, 13-15=-391/3996, 14-16=- 2 604/6871	99/1900, 29-30=-521/3920 -524/3935, 17-19=-284/30 <sup>-</sup> 323/1889, 13-14=-342/210	, 25-29=-493/3734, 18, 9,					
WEBS 6-19 5-19 4-26	=-102/789, 6-17=-255/257, 7-17=-74/78 =-1021/286, 5-26=-130/889, 9-14=-60/6 =-1885/393	1, 8-17=-1165/286, 8-16=-1 96, 9-16=-1867/320, 4-27=-	10/953, 92/701,					
<ul> <li>NOTES-</li> <li>1) Unbalanced roof live loads have been considered for this design.</li> <li>2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 16-0-0, Exterior(2R) 16-0-0 to 20-2-15, Interior(1) 20-2-15 to 24-0-0, Exterior(2R) 24-0-0 to 28-2-15, Interior(1) 28-2-15 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces &amp; MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60</li> <li>3) Provide adequate drainage to prevent water ponding.</li> <li>4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</li> <li>5) Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.</li> <li>6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 319 lb uplift at joint 2 and 319 lb uplift at joint 11.</li> <li>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.</li> <li>8) This truss is 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.</li> <li>9) Graphical apultin representation does not depict the size or the orientation of the purplin along the top and/or bottom chord.</li> </ul>								
WARNING - Verify de Design valid for use onl a truss system. Before u building design. Bracin- is always required for st fabrication, storage, del Safety Information av	esign parameters and READ NOTES ON THIS AND I ywith MTek® connectors. This design is based on use, the building designer must verify the applicabil g indicated is to prevent buckling of individual truss tability and to prevent collapse with possible persor ivery, erection and bracing of trusses and truss sys analable from Truss Pitate Institute, 2670 Crain Hidow	NCLUDED MITEK REFERENCE P ly upon parameters shown, and is ity of design parameters and prope web and/or chord members only. al injury and property damage. Fc terms, see <b>ANSITPI 1 Qu</b> avy, Suite 203 Waldorf, MD 20601	AGE MII-7473 rev. 5/19/2020 I for an individual building com rly incorporate this design int Additional temporary and per or general guidance regarding ality Criteria, DSB-89 and B	BEFORE USE. aponent, not to the overall rmanent bracing the SCSI Building Comp	onent	Milek* 16023 Swingley I Chesterfield, MO	Ridge Rd 63017	



	L	6-10-3	13-8-0	19-10-0	20 <sub>1</sub> φ-0	26-0-0		31-4-4	33	3-9-7 36-8-8	40-0-0
	1	6-10-3	6-9-13	6-2-0	0-2-0	6-0-0		5-4-4	2.	-5-3 2-11-1	3-3-8
Plate Offse	ets (X,Y)	[2:0-8-0,0-0-3], [7:0-3-12,0-0-	12], [11:0-1-0,0-3-4]	, [20:0-7-8,0-3-0	0], [21:Edge,0	)-3-8], [22:0-	3-8,0-3	·0]			
LOADING TCLL TCDL BCLL BCDL	(psf) 25.0 20.0 0.0 10.0	SPACING- 2-1 Plate Grip DOL 1 Lumber DOL 1 Rep Stress Incr Y Code IRC2018/TPI201	0-0 CS .15 TC .15 BC ES WE 14 Ma	I. 0.83 0.92 3 0.81 trix-AS	DEFL Vert(L Vert(C Horz(f	. in L) -0.28 CT) -0.63 CT) 0.34	(loc) 17 17-19 11	l/defl >999 2 >766 1 n/a	L/d 240 I 80 n/a	PLATES MT20 Weight: 215 I	<b>GRIP</b> 197/144 b FT = 20%
LUMBER-       BRACING-         TOP CHORD       2x6 SPF No.2 *Except*       TOP CHORD         7-9: 2x4 SP 2400F 2.0E, 9-12: 2x4 SPF 1650F 1.5E       TOP CHORD       Structural wood sheathing directly applied, except         BOT CHORD       2x4 SPF No.2 *Except*       2-0-0 oc purlins (3-7-4 max.): 5-7.         BOT CHORD       2x4 SPF 1650F 1.5E       BOT CHORD         WEBS       2x4 SPF 1650F 1.5E       BOT CHORD         WEDGE       Left: 2x4 SP No.3       Rigid ceiling directly applied.										t	
REACTIO	NS. (sizo Max H Max U Max G	e) 2=0-3-8, 11=0-3-8 orz 2=131(LC 12) plift 2=-265(LC 12), 11=-268(l rav 2=2279(LC 1), 11=2279(L	LC 13) LC 1)								
FORCES. TOP CHOR BOT CHOR WEBS	(lb) - Max. RD 2-3=- 8-10= RD 2-22= 13-15 3-22= 8-16= 10-16	Comp./Max. Ten All forces : 4050/510, 3-5=-3837/526, 5-6 =-4695/609, 10-11=-6416/776 =-412/3494, 5-20=-86/710, 19- 5=-415/4147, 14-16=-252/152! =-406/120, 20-22=-400/3287, 3 =-85/768, 6-19=-640/205, 7-19 5=-1509/248	250 (lb) or less exce =-3664/547, 6-7=-3 -20=-273/3306, 17-1 9, 13-14=-260/1754, 3-20=-257/204, 7-17 9=-171/768, 5-19=-1	pt when shown 670/550, 7-8=-3 9=-261/3249, 1 11-13=-627/56 =-90/724, 8-17: 53/685, 10-14=-	3729/524, 5-17=-413/4 661 =-1080/241, -44/712,	152,					
NOTES- 1) Unbalar 2) Wind: A MWFRS 17-10-1 exposed grip DO 3) Provide 4) This tru: 5) Bearing capacity 6) Provide joint 11. 7) This tru: reference 8) This tru: 8) This tru: 9) Granble	nced roof live SCE 7-16; V 6 (envelope) 5, Interior(1) d; end vertic L=1.60 adequate di ss has been at joint(s) 1 <sup>-</sup> y of bearing s mechanical ss is designer ced standard ss design re- ck be applied	e loads have been considered (ult=115mph (3-second gust) ) gable end zone and C-C Exte 17-10-15 to 26-0-0, Exterior(2 al left and right exposed;C-C f rainage to prevent water pondi designed for a 10.0 psf bottor 1 considers parallel to grain va surface. connection (by others) of trus: ed in accordance with the 2018 ANSI/TPI 1. quires that a minimum of 7/16' d directly to the bottom chord.	for this design. Vasd=91mph; TCDL erior(2E) -0-10-8 to 2 2R) 26-0-0 to 30-2-1 for members and for ing. n chord live load nor alue using ANSI/TPI s to bearing plate ca 8 International Resid " structural wood sho	=6.0psf; BCDL= -1-8, Interior(1) 5, Interior(1) 30 ces & MWFRS nconcurrent with 1 angle to grain pable of withsta lential Code sec eathing be appli	=4.2psf; h=25 2-1-8 to 13-8 -2-15 to 40-1 for reactions h any other lin h formula. Bu anding 265 lb ctions R502.1 ied directly to	off; Cat. II; E) B-0, Exterior( 0-8 zone; ca shown; Lum re loads. ilding desigr uplift at join 1.1 and R80 the top chor	kp C; Er 2R) 13- Intilever Iber DO her shou t 2 and 1 02.10.2 a rd and 1	aclosed; 8-0 to left and righ L=1.60 plate Ild verify 268 lb uplift a and /2" gypsum	t at	Septemb	MISSOLUTI MISSOLUTI VIER MBER DI018807
9) Graphic WAR Design v a truss s building is alway: fabricatic Safety In	NING - Verify de valid for use only system. Before u design. Bracing s required for st on, storage, deli nformation av	resentation does not depict the sign parameters and READ NOTES ON y with MiTek® connectors. This design ise, the building designer must verify ti j indicated is to prevent buckling of inc ability and to prevent collapse with pos very, erection and bracing of trusses a aliable from Truss Plate Institute, 2670	SIZE or the oriental THIS AND INCLUDED N is based only upon para he applicability of design dividual truss web and/or ssible personal injury and and truss systems, see O Crain Highway, Suite 20	ION OF THE PURIN ITEK REFERENCE meters shown, and parameters and pro chord members only property damage. I ANSI/TPI1 C 3 Waldorf, MD 2060	PAGE MII-7473 is for an individu perly incorporate . Additional tem For general guid Quality Criteria, 01	and/or bott rev. 5/19/2020 B al building comp this design into porary and perr ance regarding DSB-89 and BC	EFORE U Dependent, no the overa manent br the CSI Buildi	rd. SE. t all acing ng Component	t	MiTek 16023 Swingh Chesterfield, I	ey Ridge Rd MO 63017



						RELEASE FOR CONSTRUCTION
						AS NOTED FOR PLAN REVIEW
Job	Truss	Truss Type	Qty	Ply	Summit/35 Woodside	DEVELOPMENT SERVICES
2935806	A6	HIP	1	1		LEE'S SUMMIT. MISSOURI
					Job Reference (optional)	1011010001
Builders FirstSource (Valle	Center), Valley Center, ł	(S - 67147,	8.4	30 s Aug '	16 2021 MiTek Industries, Ir	c. Mon Sep 20 19:10:2021 Page 2
			ID:clow4Ylgf	iox0?ly?5	3Ccz33zm-CPx7BVJkab4C	pi9YXpNillsh5UYzsUinvkwb5ZUybeoP
NOTES-						

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





16

3x6 =

14 13

 $3x4 \parallel 4x8 =$ 

2-0-0 oc purlins (6-0-0 max.): 4-9.

2-3-8 2-3-8	5-10-5 10-0-0 3-6-13 4-1-1	0	19-3-8 9-3-8	<u>19-3-12</u> 0-0-4	28-3-4 8-11-8	3( 28-4-0 0-0 <sup>-</sup> 12 1	0-0-0 	40-0-0 10-0-0	
te Offsets (X,Y)	[3:0-4-0,0-2-7], [4:0-4-12	,0-3-0], [9:0-4-0	),0-1-15], [11:0-3-8,E	dge], [15:0-2-12,E	dge], [18:0-3	-8,0-2-0]			
ADING (psf) LL 25.0 DL 20.0 LL 0.0 DL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TF	2-0-0 1.15 1.15 YES Pl2014	CSI. TC 0.80 BC 0.58 WB 0.93 Matrix-AS	DEFL. Vert(LL Vert(C <sup>-</sup> Horz(C	in ) -0.24 T) -0.56 T) 0.21	(loc) l/defl 3-18 >960 3-18 >410 16 n/a	L/d 240 180 n/a	<b>PLATES</b> MT20 Weight: 168 lb	<b>GRIP</b> 197/144 FT = 20%
MBER- P CHORD 2x4 SI	PF No.2 *Except*			BRACI TOP CI	NG- HORD	Structural wood	d sheathing dir	ectly applied, except	

BOT CHORD

Rigid ceiling directly applied. 15-17: 2x4 SP 2400F 2.0E WEBS 2x4 SPF No.2 WEDGE Right: 2x4 SPF No.2 REACTIONS. All bearings 0-3-8. Max Horz 2=97(LC 12) (lb) -Max Uplift All uplift 100 lb or less at joint(s) 2 except 11=-121(LC 13), 16=-402(LC 9), 15=-214(LC 8) Max Grav All reactions 250 lb or less at joint(s) except 2=571(LC 25), 11=578(LC 26), 16=3139(LC 25), 15=655(LC 26)

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

1-4: 2x6 SPF No.2, 4-7: 2x4 SPF 1650F 1.5E

2x4 SPF No.2 \*Except\*

TOP CHORD 3-21=-260/119, 3-4=-164/311, 5-6=-461/2643, 6-8=-65/445, 8-9=-63/461, 9-10=-81/251, 10-11=-544/168 BOT CHORD 16-18=-1516/414, 15-16=-1632/413, 8-15=-408/140, 11-13=-71/454

18

17

4x8 = 3x6 =

WEBS 4-18=-776/223, 5-18=-302/1766, 5-16=-1908/327, 6-16=-1750/285, 6-15=-276/1493, 13-15=-74/281, 9-15=-888/199, 9-13=-106/535, 10-13=-582/209

#### NOTES-

Pla LO тс TC BC BC LU TO

BOT CHORD

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-12, Interior(1) 2-1-12 to 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 30-0-0, Exterior(2R) 30-0-0 to 34-2-15, Interior(1) 34-2-15 to 40-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.

19

4x6 = 2x4 ||

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 11=121, 16=402, 15=214.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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 system. See MSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



4x8 ||





TCDL         20.0           BCLL         0.0           BCDL         10.0	Lumber DOL         1.15           Rep Stress Incr         YES           Code IRC2018/TPI2014	BC 0.37 WB 0.58 Matrix-AS	Vert(CT) -0.20 Horz(CT) 0.09	3-20 17	>834 n/a	180 n/a	Weight: 175 lb	FT = 20%
LUMBER-	2x6 SPF No.2 *Except*		BRACING- TOP CHORD	Structu	ural wood	l sheathing o	directly applied, except	
	4-8.8-10: 2x4 SPF No.2			2-0-0 0	oc purlins	(6-0-0 max	.): 4-10.	
BOT CHORD	2x4 SPF No.2 *Except*		BOT CHORD	Rigid c	eilina dir	ectly applied	d.	
	15-18: 2x4 SP 2400F 2.0E							
WEBS	2x4 SPF No.2							
	Max Opint All upint 100 lb or less at joint(s) 2 Max Grav All reactions 250 lb or less at joint( 11=645(LC 26)	except 1/=-436(LC 12), 1 s) except 2=390(LC 1), 15	4=-253(LC 8), 11=-150 7=2352(LC 1), 14=1306	(LC 13) (LC 26),				
FORCES. (lb)	- Max. Comp./Max. Ten All forces 250 (lb) or	less except when shown.						
TOP CHORD	3-4=-105/427, 4-5=-236/1265, 5-6=-242/1287	7, 9-10=-15/269, 10-11=-4	53/145					
BOT CHORD	3-20=-252/141, 19-20=-254/138, 16-17=-140 11-13=-12/307	7/343, 14-16=-269/80, 13-	·14=-13/302,					
WEBS	4-19=-1309/282, 17-19=-1517/387, 6-17=-15 9-16=-197/397, 9-14=-696/265, 10-14=-726/5	03/306, 6-16=-222/1505, 3 95, 10-13=0/251	7-16=-682/218,					
NOTES-	raaf live loade have been considered for this de	aian						

 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 13-10-4, Interior(1) 13-10-4 to 32-0-0, Exterior(2R) 32-0-0 to 37-7-14, Interior(1) 37-7-14 to 40-10-8 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 17=436, 14=253, 11=150.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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						RELEASE FOR CONSTRUCTION
						AS NOTED FOR PLAN REVIEW
Job	Truss	Truss Type	Qty	Ply	Summit/35 Woodside	DEVELOPMENT SERVICES
2935806	A9	Hip Girder	1	2		LEE'S SUMMIT, MISSOURI
				<b>_</b>	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	(S - 67147,	8.4	430 s Aug	16 2021 MiTek Industries, Ir	c. Mon Sep 20 19:50:56 2021 Page 2
			ID:clow4Ylgf7io	x0?ly?5BC	Ccz33zm-1YJOSYNV9RqMJ	icit4U6W7xKcz3HuVLNos2Qm8ybeoJ

#### NOTES-

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

10) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 4-0-0 oc max. starting at 8-0-12 from the left end to 31-11-4 to connect truss(es) to front face of bottom chord.

11) Fill all nail holes where hanger is in contact with lumber.

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 816 lb down and 282 lb up at 6-0-0, and 306 lb down and 102 lb up at 11-10-4, and 800 lb down and 281 lb up at 33-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

# LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-90, 3-4=-90, 4-11=-90, 11-14=-90, 26-27=-20, 24-30=-20, 22-33=-20

Concentrated Loads (lb)

Vert: 24=-306(F) 18=-306(F) 25=-816(F) 16=-800(F) 21=-306(F) 17=-306(F) 19=-306(F) 20=-306(F) 36=-307(F) 37=-307(F) 38=-306(F) 39=-306(F) 40=-306(F) 41=-306(F) 42=-306(F) 42=-3





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MiTek



- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 224 lb uplift at joint 2, 203 lb uplift at joint 17 and 251 lb uplift at joint 12.
- 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.

 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 besign valid to less only with with twe commendations. This besign is based only upon parameters and properly incorporate this design into the overall a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



NUMBER

PE-2001018807

September 21,2021

E

OROFILESSIONAL



TOP CHORD

BOT CHORD

WEBS

Structural wood sheathing directly applied, except

6-16.8-15

2-0-0 oc purlins (10-0-0 max.): 6-8.

Rigid ceiling directly applied.

1 Row at midpt

LUMBER-

- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPE No 2 \*Except\*
- 16-17: 2x4 SP 2400F 2.0E WEBS 2x4 SPF No.2

WEDGE

#### Left: 2x4 SPF No.2 SLIDER Right 2x4 SPF No.2 2-0-0

- REACTIONS. (size) 11=Mechanical, 2=0-3-8, 16=0-3-8 Max Horz 2=140(LC 12) Max Uplift 11=-235(LC 13), 2=-226(LC 12), 16=-209(LC 12) Max Grav 11=940(LC 26), 2=1081(LC 25), 16=2460(LC 1)
- FORCES. (lb) Max. Comp./Max. Ten. All forces 250 (lb) or less except when shown.
- TOP CHORD 2-3=-1595/348, 3-5=-1516/386, 5-6=-1559/491, 6-7=0/413, 7-8=0/415, 8-9=-589/323, 9-11=-1252/391
- BOT CHORD 2-19=-375/1349, 5-17=-435/183, 16-17=-153/524, 15-16=-77/931, 7-16=-598/199, 13-15=-58/388, 12-13=-261/1098, 11-12=-261/1098 WEBS 3-19=-274/112, 17-19=-301/1384, 6-17=-265/1222, 6-16=-1187/234, 8-15=-1128/128,
- 8-13=-71/573, 9-13=-819/235, 9-12=0/273

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 26-0-0, Exterior(2R) 26-0-0 to 30-2-15, Interior(1) 30-2-15 to 39-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are MT20 plates unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 235 lb uplift at joint 11, 226 lb uplift at joint 2 and 209 lb uplift at joint 16.
- 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.







	3-11-6	6-11-6	12-0-0	20-3-8	20-4-0	2	28-0-0			33-8-8	39-8-8	39-8-9
	3-11-6 te (X V)	3-0-0 [5:0_4_0_0_1_15] [8:	5-0-10 0-4-0 0-3-31 [10·Ed/	8-3-8 0-0-15] [17:0-5-8	0-0-8		7-8-0			5-8-8	6-0-0	0-0-1
	(3 (X, 1)	[5.0-4-0,0-1-15], [6.	0-4-0,0-3-3], [10.Ld	<u>je,0-0-13], [17.0-3-0</u>	,0-2-0]							
LOADING	(psf)	SPACING-	2-0-0	CSI.	DE	FL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip D	OL 1.15	TC 0.87	Ve	rt(LL) -	0.09 1	12-14	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL	. 1.15	BC 0.68	Ve	rt(CT) -	0.20 1	12-14	>999	180		
BCLL	0.0	Rep Stress I	ncr YES	WB 0.92	Ho	rz(CT)	0.04	15	n/a	n/a		
BCDL	10.0	Code IRC20	18/TPI2014	Matrix-AS							Weight: 183 lb	FT = 20%
LUMBER-					BR	ACING.						
TOP CHOR	RD 2x4 SP	PE No 2 *Except*			TO	P CHORD	) (	Structu	ral wood	sheathing direc	ctly applied except	
	8-10:2	x6 SPF No.2						2-0-0 0	c purlins	(5-11-7 max.): {	5-8.	
BOT CHOF	RD 2x4 SP	PF No.2 *Except*			BO	T CHORD	) I	Rigid ce	eiling dire	ctly applied.		
	15-17:	2x4 SP 2400F 2.0E			WE	BS		1 Row a	at midpt	8-1-	4	
WEBS	2x4 SF	PF No.2							•			
WEDGE												
Left: 2x4 SI	PF No.2 , Ri	ight: 2x4 SPF No.2										
REACTIONS.         (size)         2=0-3-8, 15=0-3-8, 10=Mechanical           Max Horz         2=121(LC 12)           Max Uplift         2=-185(LC 12), 15=-269(LC 9), 10=-190(LC 13)           Max Grav         2=1109(LC 25), 15=2399(LC 1), 10=964(LC 26)												
FORCES.	(lb) - Max.	Comp./Max. Ten J	All forces 250 (lb) or	less except when sl	nown.							
TOP CHOP	RD 2-3=-	1636/267, 3-4=-191	2/356, 4-5=-1110/22	27, 5-6=-903/236, 6-	7=0/363, 7-8=0	)/326,						
	8-9=-	864/249, 9-10=-144	3/313									
BOT CHOP	RD 2-19=	-289/1385, 4-17=-7	0/435, 16-17=-331/	1734, 15-16=-59/439	, 14-15=-42/81	2,						
WEDO	7-15=	=-604/191, 12-14=-3	0/670, 11-12=-205/	198, 10-11=-205/11	98							
WEBS	4-16=	-942/278, 6-16=-93	/729, 6-15=-1162/16	6, 8-12=-50/521, 9-	12=-607/210,							
	3-19=	=-470/127, 17-19=-2	78/1335, 3-17=-20/3	527, 8-14=-1179/118								
NOTES-												
1) Unbalan	ced roof live	e loads have been co	onsidered for this de	sign.								
2) Wind: A	SCE 7-16; V	ult=115mph (3-seco	ond gust) Vasd=91m	ph; TCDL=6.0psf; B	CDL=4.2psf; h	=25ft; Cat.	II; Exp	p C; En	closed;		COOL	ADA
MWFRS	(envelope)	gable end zone and	C-C Exterior(2E) -C	-10-8 to 2-1-8, Interi	or(1) 2-1-8 to 1	12-0-0, Ext	erior(2	2R) 12-0	0-0 to 16-	2-0,	OF N	AISe
Interior(1	1) 16-2-0 to	28-0-0, Exterior(2R)	28-0-0 to 32-2-15, I	nterior(1) 32-2-15 to	39-8-8 zone; o	cantilever le	eft and	d right e	xposed;	end	Bar	N.O.
vertical l	eft and right	exposed;C-C for m	embers and forces &	& MWFRS for reaction	ons shown; Lur	nber DOL=	=1.60 p	olate gri	ip DOL=1	.60	BS SCOTT	N N N
3) Provide	adequate dr	ainage to prevent w	ater ponding.		4	- Directore de	_			E E	SEVI	FP / N

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 185 lb uplift at joint 2, 269 lb uplift at joint 15 and 190 lb uplift at joint 10.
- 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.
- 9) 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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Mitek\* 16023 Swingley Ridge Rd Chesterfield, MO 63017



12 MT20HS

15

5x8 =

ф

14

3x6 =

13

4x8 =

1	3-3-8	10-0-0	1 1	5-2-0	2	20-3-8	20-4-0	25-3-	12		30-0-0	1	39-8-8	39-8-10
I	3-3-8	6-8-8	'	5-2-0	1 5	5-1-8	0-0-8	4-11-	12	1	4-8-4	I	9-8-8	0-0-2
Plate Offsets ()	X,Y) [2	2:0-2-15,0-2-0], [4:0-4-1	0,Edge], [9:0-4	-0,0-1-15], [	12:0-5-1,	Edge], [	[16:0-6-0,0	)-2-12	]					
LOADING (psf	f)	SPACING-	2-0-0	CSI.			DEFL		in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 25.0	0	Plate Grip DOL	1.15	TC	0.73		Vert(L	.L)	-0.19	16-18	>999	240	MT20	197/144
TCDL 20.0	0	Lumber DOL	1.15	BC	0.95		Vert(C	CT)	-0.40	13-15	>572	180	MT20HS	148/108
BCLL 0.0	0	Rep Stress Incr	YES	WB	0.36		Horz(	CT)	0.12	16	n/a	n/a		
BCDL 10.0	0	Code IRC2018/TI	PI2014	Matri	x-AS								Weight: 162 lb	FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS SLIDER REACTIONS.	2x4 SPF 2x4 SPF 2-19: 2x4 2x4 SPF Right 2x (size) Max Ho Max Up Max Gra	No.2 No.2 *Except* 5 SPF No.2, 16-17: 2x4 No.2 4 SPF No.2 2-0-0 12=Mechanical, 2=0 rz 2=105(LC 12) ift 12=-205(LC 13), 2=- av 12=960(LC 26), 2=1	SP 2400F 2.08 -3-8, 16=0-3-8 209(LC 12), 16 099(LC 25), 16	=-320(LC 9) =2418(LC 1	)		BRAC TOP C BOT C WEBS	ing- Chori Chori	D	Structu 2-0-0 o Rigid c 1 Row	ral wood c purlins eiling dire at midpt	sheathing (5-0-3 ma ectly applie	g directly applied, except x.): 4-9. ed. 3-18, 8-15, 5-16	
FORCES. (Ib) TOP CHORD BOT CHORD WEBS	) - Max. C 2-3=-3 9-10=- 2-19=- 13-15= 3-19=- 5-18=-	omp./Max. Ten All fo 292/719, 3-4=-1456/29 1050/293, 10-12=-1396 712/2967, 18-19=-678/2 -91/475, 12-13=-252/1 116/709, 3-18=-1616/4 71/657, 5-16=-1431/317	rces 250 (Ib) or 5, 4-5=-1199/31 /360 2794, 16-18=-1 197 30, 10-13=-400, 7	less except  5, 5-6=-9/4 48/693, 15- /173, 8-13=-	when sh 56, 6-8=0 16=-117/9 28/603, 8	10wn. D/399, 8 938, 6-1 8-15=-1	-9=-862/29 16=-484/14 174/212,	99, 47,						

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 10-0-0, Exterior(2R) 10-0-0 to 14-2-15, Interior(1) 14-2-15 to 30-0-0, Exterior(2R) 30-0-0 to 34-2-15, Interior(1) 34-2-15 to 39-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

19

4x8 = 4.00 12

6x8 =

- 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.

18

4x12 =

17

3x6 =

- 6) Refer to girder(s) for truss to truss connections.
- 7) 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 205 lb uplift at joint 12, 209 lb uplift at joint 2 and 320 lb uplift at joint 16.
- 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.



4x8 ||

September 21,2021

MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



		3-3-8	1	8-0-0	13-4	4-12	1		19-11-14	20-ρ-0	)
		3-3-8		4-8-8	5-4	-12			6-7-2	0-0-2	
Plate Offsets	s (X,Y)	[4:0-4-0,0-1-15]									
LOADING (p TCLL 2 TCDL 2 BCLL	psf) 25.0 20.0 0.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI. TC 0.4 BC 0.4 WB 0.4	50 DE 50 Ve 41 Ve 85 Ho	E <b>FL.</b> rt(LL) -( rt(CT) -( orz(CT) (	in (loc) 0.05 11-12 0.11 11-12 0.04 9	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 197/144
BCDL 1	0.0	Code IRC2018/1	PI2014	Matrix-A	5					Weight: 87 lb	FT = 20%
LUMBER- TOP CHORE	D 2x4 SP	PF No.2			BR TO	ACING- P CHORD	Structu	ral wood	sheathing direct	ly applied, except	end verticals, and

BOT CHORD 2x4 SPF No.2 \*Except\* 2-0-0 oc purlins (10-0-0 max.): 4-5. 2-12: 2x6 SPF No.2 BOT CHORD Rigid ceiling directly applied. WEBS 2x4 SPF No.2 REACTIONS. All bearings 6-11-14 except (jt=length) 2=0-3-8. (lb) - Max Horz 2=179(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 7, 2 except 8=-199(LC 25), 9=-319(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 7, 8 except 2=664(LC 1), 9=1598(LC 1)

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

- TOP CHORD 2-3=-1583/348, 3-4=-557/119, 4-5=-205/601, 5-6=-197/728
- BOT CHORD 2-12=-521/1407, 11-12=-488/1307, 9-11=-161/416
- WEBS 3-12=-97/383, 3-11=-899/334, 4-11=-37/360, 4-9=-1171/344, 6-9=-909/273, 6-8=-98/308

#### NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 16-6-0, Exterior(2R) 16-6-0 to 19-6-0, Interior(1) 19-6-0 to 19-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) Bearing at joint(s) 7, 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) 7, 2 except (jt=lb) 8=199, 9=319.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.







	3-3-8		6-0	-0		9-8	3-8			13-0-0	
	3-3-8	0.0.451.10.0	2-8	-8 5 4 0 0 41 10 4	2440401	3-8	8-8			3-3-8	
Plate Olisets (X, r	- [2:0-1-4,0-3-5], [3:0-6-0,1	0-0-15], [6:0-	<u>J-8,U-1-8], [7:U-</u>	5-4,0-2-4], [8:0	0-4-4,0-1-8]						
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	0.75	Vert(LL)	-0.09	9-10	>999	240	MT20	197/144
TCDL 20.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.21	9-10	>749	180		
BCLL 0.0	Rep Stress Incr	NO	WB	0.62	Horz(CT)	0.13	6	n/a	n/a		
BCDL 10.0	Code IRC2018/T	PI2014	Matrix	-MS						Weight: 59 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-	
TOP CHORD	2x4 SP

- PF 1650F 1.5E \*Except\* 3-5: 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 \*Except\* 2-10: 2x6 SPF 2100F 1.8E, 7-9: 2x6 SPF No.2 WEBS 2x4 SPF No.2
- REACTIONS. (size) 6=0-3-8, 2=0-3-8 Max Horz 2=137(LC 7) Max Uplift 6=-489(LC 5), 2=-323(LC 8) Max Grav 6=1789(LC 1), 2=1449(LC 1)

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

- 2-3=-3678/896, 3-4=-2094/559, 4-5=-2067/549, 5-6=-1539/431 TOP CHORD
- 2-9=-884/3221, 9-10=-125/492, 8-9=-788/2819, 7-8=-812/2937 BOT CHORD
- WEBS 3-7=-980/283, 4-7=-367/117, 5-7=-689/2471, 8-10=-86/484, 3-10=-438/1731

# NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate arip 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) Bearing at joint(s) 6, 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) except (jt=lb) 6=489, 2=323.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent at 8-0-0 from the left end to connect truss(es) to back face of bottom chord, skewed 0.0 deg.to the right, sloping 0.0 deg. down.
- 10) Fill all nail holes where hanger is in contact with lumber.
- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 827 lb down and 281 lb up at 5-10-4, and 306 lb down and 119 lb up at 9-8-8, and 307 lb down and 118 lb up at 12-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

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Structural wood sheathing directly applied or 2-10-2 oc purlins,

except end verticals, and 2-0-0 oc purlins (3-10-12 max.): 3-5.

Rigid ceiling directly applied or 6-0-0 oc bracing.

September 21,2021



	RELEASE FOR CONSTRUCTION
	AS NOTED FOR PLAN REVIEW
Job Truss Truss Type Qty Ply Summit/35 Woodside	DEVELOPMENT SERVICES
2935806 B9 Half Hip Girder 1 1	LEE'S SUMMIT, MISSOURI
Job Reference (optional)	1040000
Builders FirstSource (Valley Center), Valley Center, KS - 67147, 8.430 s Aug 16 2021 MiTek Industries, Irc. Mon	Sep 20 19:11:24 2021 Page 2
lD:clow4Ylgf7iox0?ly?5BCcz33zm-CgTYmJWPapDo7	TSuDNPoRzQT?e3Dvf?ybeoo

Г

#### LOAD CASE(S) Standard

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

Concentrated Loads (lb) Vert: 10=-827(B) 7=-306(B) 14=-306(B) 15=-307(B)





						RELEASE FOR CONSTRUCTION
	1	1				AS NOTED FOR PLAN REVIEW
Job	Truss	Truss Type	Qty	Ply	Summit/35 Woodside	DEVELOPMENT SERVICES
2935806	C1	ROOF SPECIAL GIRDER	1	2	lob Reference (optional)	LEE'S SUMMIT, MISSOURI
Builders FirstSource (Valley	Center), Valley Center, K	L KS - 67147,	8.4 ID:clow4Ylg	430 s Aug 9f7iox0?ly?	16 2021 MiTek Industries, Ir 5BCcz33zm-92bIB?Xf5QTV	c. Mon Sep 21 /9:11:222027 Pale 2 Nd6C8ID9YszehCYvNie/5Nickuybeoo

#### NOTES-

10) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 4-0-0 oc max. starting at 4-0-12 from the left end to 18-0-12 to connect truss(es) to front face of bottom chord.

11) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent at 8-0-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg. to the left, sloping 0.0 deg. down.

12) Fill all nail holes where hanger is in contact with lumber.

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1572 lb down and 400 lb up at 1-10-8 on top 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: 3-24=-90, 3-8=-90, 24-26=-160, 7-8=-160, 23-25=-160, 6-23=-20, 5-6=-160

Concentrated Loads (lb)

Vert: 24=-1542(F) 11=-880(F) 13=-904(F) 10=-875(F) 22=-1024(F) 27=-1024(F) 28=-1024(F) 29=-900(F) 30=-908(F)





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MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



	3-2-9 6-4-12	10-4-12	14-4-1	2	17-6-15	20-9-8	
1	3-2-9 3-2-3	4-0-0	4-0-0	)	3-2-3	3-2-9	
Plate Offsets (X,Y)	[2:0-0-0,0-0-1], [4:0-4-0,0-1-15], [6:0-4-0	,0-1-15], [8:0-0-0,0-0-1],	[11:0-6-0,0-6-0], [13:0-6·	0,0-6-0]			
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	<b>CSI.</b> TC 0.73 BC 0.35 WB 0.33 Matrix-MS	DEFL. ir Vert(LL) -0.13 Vert(CT) -0.28 Horz(CT) 0.04	(loc) l/d 12 >9 12 >9 8 I	lefi L/d 99 240 06 180 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 123 lb         FT = 20%	
LUMBER-       BRACING-         TOP CHORD       2x4 SPF No.2 *Except*       TOP CHORD         4-6: 2x4 SPF 1650F 1.5E       TOP CHORD       Structural wood sheathing directly applied or 2-1-2 oc purlins, except         BOT CHORD       2x8 SP 2400F 2.0E       BOT CHORD       BOT CHORD         WEBS       2x4 SPF No.2       BOT CHORD       Rigid ceiling directly applied or 10-0-0 oc bracing.							
REACTIONS. (siz Max H Max U Max C	REACTIONS. (size) 2=0-3-8, 8=0-3-8 Max Horz 2=-62(LC 34) Max Uplift 2=-653(LC 8), 8=-653(LC 9) Max Grav 2=2768(LC 1), 8=2768(LC 1)						
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.         TOP CHORD       2-3=-4795/1151, 3-4=-5144/1280, 4-5=-5253/1279, 5-6=-5253/1279, 6-7=-5144/1280, 7-8=-4795/1153         BOT CHORD       2-15=-1030/4235, 13-15=-1030/4235, 12-13=-1080/4534, 11-12=-1018/4534, 10-11=-969/4235, 8-10=-969/4235         WEBS       3-15=-528/158, 3-13=-258/546, 4-13=-362/1351, 4-12=-263/1009, 5-12=-483/151, 6-12=-263/1009, 6-11=-362/1352, 7-11=-259/546, 7-10=-528/157							
<ul> <li>NOTES-</li> <li>1) Unbalanced roof live loads have been considered for this design.</li> <li>2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60</li> <li>3) Provide adequate drainage to prevent water ponding.</li> <li>4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</li> <li>5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=653, 8=653.</li> <li>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/TP1 1.</li> <li>7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.</li> <li>8) 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 7-4-12 from the left end to 13-4-12 to connect truss(es) to back face of bottom chord.</li> </ul>							

- Fill all nail holes where hanger is in contact with lumber.
- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 890 lb down and 308 lb up at 6-4-12, and 890 lb down and 308 lb up at 14-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

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
 Most/TP11 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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PE-2001018

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Job	Truss	Truss Type	Qty	Ply	Summit/35 Woodside	AS
2935806	С3	Hip Girder	1	1	Job Reference (optional)	L
Builders FirstSource (Valley	Center), Valley Center, k	S - 67147,	ID:clow4Y	8.430 s Aug lgf7iox0?ly?t	16 2021 MiTek Industries, Ir 5BCcz33zm-5Rj3bhZvd2jDc	c. Mon Sep 2 GbGjFddH3



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#### LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-4=-90, 4-6=-90, 6-9=-90, 16-19=-20

Concentrated Loads (lb)

Vert: 13=-890(B) 11=-890(B) 22=-328(B) 23=-328(B) 24=-328(B) 25=-328(B)





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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 system. See MSI/TP11 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



- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 7=151, 2=161.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-4=-90, 4-5=-40, 6-9=-20
  - Concentrated Loads (lb)
    - Vert: 13=-7(F=-3, B=-3) 14=-12(F=-6, B=-6) 15=-88(F=-44, B=-44)







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# MITEK° 16023 Swingley Ridge Rd Chesterfield, MO 63017



#### LOAD CASE(S) Standard

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



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Uniform Loads (plf) Vert: 1-4=-90, 5-8=-20 Concentrated Loads (lb) Vert: 7=-9(F=-6, B=-3)



			5-1-7			
Plate Offsets (X,Y)	[2:0-3-14,0-5-0]					
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NO Code IRC2018/TPI2014	CSI. TC 0.42 BC 0.37 WB 0.00 Matrix-MP	<b>DEFL.</b> ir Vert(LL) 0.04 Vert(CT) -0.07 Horz(CT) 0.01	n (loc) l/defl L/d 6-11 >999 240 6-11 >862 180 2 n/a n/a	<b>PLATES</b> MT20 Weight: 17 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF	PF No.2 PF No.2 PF No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing dir except end verticals. Rigid ceiling directly applied c	ectly applied or 5-1-13 r 10-0-0 oc bracing.	oc purlins,

WEDGE Left: 2x4 SPF No.2

REACTIONS. (size) 6=Mechanical, 2=0-7-0 Max Horz 2=98(LC 7) Max Uplift 6=-89(LC 8), 2=-146(LC 4) Max Grav 6=281(LC 1), 2=466(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=146.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

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

Vert: 1-3=-90, 3-4=-40, 5-7=-20 Concentrated Loads (lb)

Vert: 12=-82(F=-41, B=-41)















	8-0-0		12-0-0		19-8-8
1	8-0-0	I	4-0-0		7-8-8
Plate Offsets (X,Y)	[1:0-0-0,0-0-5], [3:0-4-0,0-1-15]				
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b> TC 0.71 BC 0.51 WB 0.13 Matrix-AS	DEFL.         ir           Vert(LL)         -0.07           Vert(CT)         -0.18           Horz(CT)         0.03	(loc) I/defl L/d 8-11 >999 240 8-11 >999 180 5 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 71 lb         FT = 20%
LUMBER- TOP CHORD 2x4 S 1-2: 2 BOT CHORD 2x4 S WEBS 2x4 S SLIDER Right	PF No.2 *Except* x6 SPF No.2 PF No.2 PF No.2 2x4 SPF No.2 2-0-0		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing dire 2-0-0 oc purlins (4-10-3 max.) Rigid ceiling directly applied.	ectly applied, except : 2-3.

REACTIONS. (size) 1=0-3-8, 5=Mechanical Max Horz 1=76(LC 12) Max Uplift 1=-132(LC 12), 5=-129(LC 13) Max Grav 1=1084(LC 1), 5=1084(LC 1)

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

- TOP CHORD 1-2=-1569/277, 2-3=-1271/312, 3-5=-1475/287
- BOT CHORD 1-8=-172/1300, 6-8=-173/1296, 5-6=-167/1274
- WEBS 3-6=-6/253

#### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 8-0-0, Exterior(2E) 8-0-0 to 12-0-0, Exterior(2R) 12-0-0 to 16-2-15, Interior(1) 16-2-15 to 19-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=132, 5=129.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.









	6-0-0	1	4-0-0			19-8-8	
	6-0-0		3-0-0	1		5-8-8	
Plate Offsets (X,Y)	[1:0-3-8,Edge], [2:0-1-0,Edge], [3:0-4-0	,0-1-15], [5:0-5-1,Edge]					
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.67 BC 0.58 WB 0.08 Matrix-AS	DEFL.         in           Vert(LL)         -0.12           Vert(CT)         -0.30           Horz(CT)         0.06	(loc) l/defl 6-8 >999 6-8 >799 5 n/a	L/d 240 180 n/a	<b>PLATES</b> MT20 Weight: 71 lb	<b>GRIP</b> 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2 *Except* 2-3: 2x6 SPF No.2     BRACING- TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-5-15 max.): 2-3.       BOT CHORD 2x4 SPF No.2     BOT CHORD Rigid ceiling directly applied.       WEBS 2x4 SPF No.2     BOT CHORD Rigid ceiling directly applied.       WEDGE Left: 2x4 SPF No.2     WEBS 1 Row at midpt 2-6							
REACTIONS. (siz Max H Max U Max G	REACTIONS.         (size)         5=Mechanical, 1=0-3-8           Max Horz         1=55(LC 12)           Max Uplift         5=-145(LC 13), 1=-148(LC 12)           Max Grav         5=1084(LC 1), 1=1084(LC 1)						
FORCES.         (lb) - Max.           TOP CHORD         1-2=           BOT CHORD         1-8=           WEBS         2-8=	Comp./Max. Ten All forces 250 (lb) o 1777/296, 2-3=-1431/300, 3-5=-1677/2 -204/1503, 6-8=-207/1496, 5-6=-187/14 0/294, 3-6=0/295	r less except when shown. 89 38					
<ul> <li>NOTES-</li> <li>1) Unbalanced roof live loads have been considered for this design.</li> <li>2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 6-0-0, Exterior(2R) 6-0-0 to 10-2-15, Interior(1) 10-2-15 to 14-0-0, Exterior(2R) 14-0-0 to 18-2-15, Interior(1) 18-2-15 to 19-8-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces &amp; MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60</li> <li>3) Provide adequate drainage to prevent water ponding.</li> <li>4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.</li> <li>5) Refer to girder(s) for truss to truss connections.</li> <li>6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=145, 1=148.</li> <li>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.</li> <li>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.</li> </ul>							

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



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

# MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-74/3 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITER® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

#### MITEK<sup>®</sup> 16023 Swingley Ridge Rd Chesterfield, MO 63017

						RELEASE FOR CONSTRUCTION
	1					AS NOTED FOR PLAN REVIEW
Job	Truss	Truss Type	Qty	Ply	Summit/35 Woodside	DEVELOPMENT SERVICES
2935806	D3	Hip Girder	1	1		LEE'S SUMMIT, MISSOURI
					Job Reference (optional)	
Builders FirstSource (Valle	y Center), Valley Center, I	KS - 67147,	8 D:clow4Yle	430 s Aug af7iox0?Iv?	16 2021 MiTek Industries, Ir 5BCcz33zm-Dx?zK7i3Z1MN	c. Mon Sep 20 /9:1: 8 2021 Pale 2 gwl5Wy gf153FaxS9SY/DovWybeat
			•	, ,	· · · · · <b>,</b> ·	5 - )_5

#### LOAD CASE(S) Standard

Uniform Loads (plf)

Vert: 1-2=-90, 2-5=-90, 5-7=-90, 13-17=-20

Concentrated Loads (lb) Vert: 2=-45(B) 5=-45(B) 11=-53(B) 12=-215(B) 10=-53(B) 3=-45(B) 4=-45(B) 9=-53(B) 8=-215(B) 20=-45(B) 21=-45(B) 22=-45(B) 23=-53(B) 24=-53(B) 24=-53(B)





September 21,2021





- NOTES-
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-9-8, Exterior(2R) 3-9-8 to 6-11-11, Interior(1) 6-11-11 to 8-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
  5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.







				6-0-0						
	G (psf)	SPACING- 2-0-0 Plate Grip DOI 1.15	<b>CSI.</b>	DEFL.	in 0.07	(loc)	l/defl	L/d	PLATES	<b>GRIP</b>
TCDL	20.0	Lumber DOL 1.15	BC 0.41	Vert(CT)	-0.14	6-9	>505	180	11120	137/144
BCLL BCDL	0.0 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-AS	Horz(CT)	0.03	2	n/a	n/a	Weight: 20 lb	FT = 20%

BOT CHORD

# LUMBER-

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 WEDGE
 Left: 2x4 SPF No.2

REACTIONS. (size) 6=Mechanical, 2=0-3-8 Max Horz 2=139(LC 11)

Max Uplift 6=-82(LC 12), 2=-59(LC 12) Max Grav 6=326(LC 1), 2=399(LC 1)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.





Plate Offsets (X,Y)	- [3:0-6-0,Edge]		
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.71 BC 0.56 WB 0.00 Matrix-AS	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         0.09         8         >743         240         MT20         197/144           Vert(CT)         -0.16         8         >439         180         MT20         197/144           Horz(CT)         0.10         7         n/a         n/a         Weight: 21 lb         FT = 20%
LUMBER- TOP CHORD 2x4 BOT CHORD 2x4 2-8 WEBS 2x4	SPF No.2 SPF No.2 *Except* 2x6 SPF No.2 SPF No.2		BRACING-         TOP CHORD       Structural wood sheathing directly applied, except end verticals.         BOT CHORD       Rigid ceiling directly applied.

REACTIONS. (size) 7=Mechanical, 2=0-3-8 Max Horz 2=118(LC 9) Max Uplift 7=-82(LC 12), 2=-58(LC 12)

Max Grav 7=327(LC 1), 2=401(LC 1)

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

# NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 6-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.







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

BOT CHORD 2x4 SPF No.2 \*Except\* 2-6: 2x6 SPF No.2 BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 3-10-15 oc purlins. Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical Max Horz 2=94(LC 12) Max Uplift 4=-45(LC 12), 2=-37(LC 12), 5=-15(LC 12) Max Grav 4=123(LC 1), 2=301(LC 1), 5=81(LC 1)

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

# NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed;
- MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.







LOADING	G (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	4-7	>999	240	MT20	197/144
TCDL	20.0	Lumber DOL 1.15	BC 0.12	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MP						Weight: 13 lb	FT = 20%

# LUMBER-

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

Max Horz 2=94(LC 12)

Max Uplift 3=-56(LC 12), 2=-38(LC 12), 4=-5(LC 12)

Max Grav 3=131(LC 1), 2=299(LC 1), 4=88(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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/TP11** Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



BRACING-TOP CHORD BOT CHORD

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

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



BOT CHORD

LUMBER-	
TOP CHORD	2x4 SPF No.2

BOT CHORD 2x6 SPF No.2

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

Max Horz 2=54(LC 12)

Max Uplift 3=-26(LC 12), 2=-30(LC 12), 4=-3(LC 12)

Max Grav 3=58(LC 1), 2=201(LC 1), 4=40(LC 3)

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

# NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.

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



Structural wood sheathing directly applied or 1-10-15 oc purlins.

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





BOT CHORD

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

Max Horz 2=61(LC 12)

Max Uplift 3=-31(LC 12), 2=-31(LC 12), 4=-4(LC 12)

Max Grav 3=71(LC 1), 2=218(LC 1), 4=49(LC 3)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 2-3-11 oc purlins.

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



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



			1	4-3-11
LOADING	G (psf)	<b>SPACING-</b> 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) 0.03 4-7 >999 240 MT20 197/144
TCDL	20.0	Lumber DOL 1.15	BC 0.22	Vert(CT) -0.04 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%

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

# LUMBER-

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

Left: 2x4 SPF No.2

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

Max Horz 2=102(LC 12)

Max Uplift 3=-68(LC 12), 2=-37(LC 12), 4=-2(LC 12) Max Grav 3=161(LC 1), 2=320(LC 1), 4=83(LC 3)

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

#### NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-2-15 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 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



September 21,2021





				6-4-12	_
LOADING	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP	_
TCLL	25.0	Plate Grip DOL 1.15	TC 0.63	Vert(LL) 0.09 6-9 >806 240 MT20 197/144	
TCDL	20.0	Lumber DOL 1.15	BC 0.46	Vert(CT) -0.18 6-9 >417 180	
BCLL	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.03 2 n/a n/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS	Weight: 21 lb FT = 20%	

BOT CHORD

# LUMBER-

 TOP CHORD
 2x4 SPF No.2

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 WEDGE
 Left: 2x4 SPF No.2

REACTIONS. (size) 6=Mechanical, 2=0-3-8 Max Horz 2=147(LC 11) May Unit 6, 97(LC 11) 2, 50(LC

Max Uplift 6=-87(LC 12), 2=-59(LC 12) Max Grav 6=348(LC 1), 2=421(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 3-6=-253/225

#### NOTES-

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

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

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.





				+-0-0
LOADIN	IG (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.20	Vert(LL) 0.01 4-7 >999 240 MT20 197/144
TCDL	20.0	Lumber DOL 1.15	BC 0.12	Vert(CT) -0.01 4-7 >999 180
BCLL	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.00 3 n/a n/a
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS	Weight: 14 lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

# LUMBER-

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

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

Max Horz 2=96(LC 12)

Max Uplift 3=-58(LC 12), 2=-38(LC 12), 4=-5(LC 12)

Max Grav 3=135(LC 1), 2=304(LC 1), 4=90(LC 3)

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

# NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 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) Refer to girder(s) for truss to truss connections.

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.

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

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









Scale = 1:10.7



CSI.

тс

BC

WB

Matrix-MR

0.04

0.03

0.00

1-7-7 1-7-7

DEFL

Vert(LL)

Vert(CT)

Horz(CT)

BRACING-TOP CHORD

BOT CHORD

3

in (loc)

-0.00

-0.00

-0.00

l/defl

n/a

4 >999

4 >999

2

L/d

240

180

n/a

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

PLATES

Weight: 4 lb

MT20

GRIP

197/144

FT = 20%

REACTIONS. (size) 4=Mechanical, 2=Mechanical, 3=Mechanical

SPACING-

Plate Grip DOL

**Rep Stress Incr** 

Code IRC2018/TPI2014

Lumber DOL

Max Horz 4=29(LC 9)

Max Uplift 2=-30(LC 12), 3=-2(LC 12)

Max Grav 4=80(LC 1), 2=61(LC 1), 3=29(LC 3)

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

#### NOTES-

LOADING (psf)

25.0

20.0

0.0

10.0

2x4 SPF No.2

2x4 SPF No.2

2x4 SPF No.2

TCLL

TCDL

BCLL

BCDL

WFBS

LUMBER-

TOP CHORD

BOT CHORD

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 3.

2-0-0

1.15

1.15

YES

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.







LOADING (psf)	SPACING- 2-0-0	<b>CSI.</b>	DEFL. in	(loc)	l/defl	L/d	PLATES	<b>GRIP</b>
TCLL 25.0	Plate Grip DOL 1.15	TC 0.18	Vert(LL) 0.01	4-7	>999	240	MT20	197/144
TCDL         20.0           BCLL         0.0           BCDL         10.0	Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	BC 0.11 WB 0.00 Matrix-MP	Vert(CT) -0.01 Horz(CT) 0.00	4-7 3	>999 n/a	180 n/a	Weight: 13 lb	FT = 20%

# LUMBER-

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

**REACTIONS.** (size) 3=Mechanical, 2=0-5-8, 4=Mechanical

Max Horz 2=90(LC 12)

Max Uplift 3=-53(LC 12), 2=-37(LC 12), 4=-5(LC 12)

Max Grav 3=124(LC 1), 2=290(LC 1), 4=84(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=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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#### BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 3-8-12 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.



TOP CHORD

BOT CHORD

# LUMBER-

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

REACTIONS. (size) 2=0-5-8, 4=Mechanical Max Horz 2=45(LC 12)

Max Uplift 2=-28(LC 12), 4=-24(LC 9)

Max Grav 2=189(LC 1), 4=70(LC 1)

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

# NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 1-7-11 oc purlins.

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





LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYES	<b>CSI.</b> TC 0.74 BC 0.22 WB 0.10	<b>DEFL.</b> Vert(LL) ( Vert(CT) -( Horz(CT) (	in 0.10 0.15 0.04	(loc) 8 8 2	l/defl >707 >457 n/a	L/d 240 180 n/a	PLATES MT20	<b>GRIP</b> 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS						Weight: 20 lb	FT = 20%
LUMBER- TOP CHORD BOT CHORD WEBS	BRACING- TOP CHORD BOT CHORD	S F	Structu Rigid ce	ral wood s eiling dire	sheathing directly applied.	ectly applied.			
REACTIONS.	(size) 2=0-3-8, 7=Mechanical Max Horz 2=137(LC 12) Max Uplift 2=-41(LC 12), 7=-99(LC 12) Max Grav 2=398(LC 1), 7=326(LC 1)								
FORCES. (lb) TOP CHORD WEBS	- Max. Comp./Max. Ten All forces 250 (lb) or 2-3=-351/68 3-8=-293/448, 4-7=-273/230	less except when shown.							
NOTEO									

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

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

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

4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.

6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and

referenced standard ANSI/TPI 1.

7) 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.







#### NOTES-

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

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

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

- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.

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

7) 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.



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TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

LUMBER-

WFBS

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

2x4 SPF No.2

REACTIONS. (size) 2=0-3-8, 7=Mechanical Max Horz 2=137(LC 12) Max Uplift 2=-41(LC 12), 7=-99(LC 12)

Max Grav 2=398(LC 1), 7=326(LC 1)

FORCES. (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. WEBS 4-7=-296/220

#### NOTES-

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

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

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

- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7.

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

7) 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.



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				3-3-8			0-7	-7		
LOADIN TCLL TCDI	<b>G</b> (psf) 25.0 20.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	CSI. TC 0.21 BC 0.14	DEFL. Vert(LL) Vert(CT)	in -0.01 -0.01	(loc) 6 6-9	l/defl >999 >999	L/d 240 180	PLATES MT20	<b>GRIP</b> 197/144
BCLL BCDL	0.0 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.02 Matrix-MP	Horz(CT)	0.00	5	n/a	n/a	Weight: 14 lb	FT = 20%

BOT CHORD

# LUMBER-

TOP CHORD 2x4 SPF No.2 2x4 SPF No.2 \*Except\* BOT CHORD 2-6: 2x6 SPF No.2 2x4 SPF No.2

WFBS

# REACTIONS. (size) 4=Mechanical, 2=0-3-8, 5=Mechanical Max Horz 2=94(LC 12)

Max Uplift 4=-65(LC 12), 2=-36(LC 12) Max Grav 4=197(LC 1), 2=299(LC 1), 5=11(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-10-3 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Structural wood sheathing directly applied or 3-10-15 oc purlins.

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





	[2.0-2-0,0-2-0]								
LOADING (psf) TCLL 25.0 TCDL 20.0 BCLL 0.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 <b>CSI.</b> 1.15 TC 1.15 BC YES WB	0.09 Vert(L 0.03 Vert(C 0.00 Horz(0	in _) -0.00 T) -0.00 CT) -0.00	(loc) 5 5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	<b>PLATES</b> MT20	<b>GRIP</b> 197/144
BCDL 10.0	Code IRC2018/TPI	2014 Matrix	x-MR					Weight: 6 lb	FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF	PF No.2 PF No.2 PF No.2		BRAC TOP C BOT C	<b>NG-</b> HORD HORD	Structu except Rigid c	ral wood s end vertic eiling dire	sheathing dire cals. ctly applied o	ectly applied or 1-10 r 6-0-0 oc bracing.	0-15 oc purlins,

#### REACTIONS. (size) 3=Mechanical, 4=Mechanical, 5=0-3-8 Max Horz 5=48(LC 12) Max Uplift 3=-30(LC 12), 5=-30(LC 12)

Max Grav 3=57(LC 1), 4=31(LC 3), 5=215(LC 1)

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

# NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







27-9-	14
27-9-	14

Plate Offsets (X,Y)	[4:0-2-10,Edge], [12:0-2-10,Edge], [22:0	-4-0,0-3-0]			
LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.07 BC 0.03 WB 0.14 Matrix-S	DEFL. i Vert(LL) n/: Vert(CT) n/: Horz(CT) 0.0	n (loc) l/defl L/d a - n/a 999 a - n/a 999 1 15 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 144 lb         FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF OTHERS 2x4 SF	PF No.2 PF No.2 PF No.2 PF No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing dir 2-0-0 oc purlins (6-0-0 max.): Rigid ceiling directly applied o	ectly applied or 6-0-0 oc purlins, except 4-12. or 10-0-0 oc bracing.

#### REACTIONS. All bearings 27-9-14.

(lb) - Max Horz 1=-170(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except 27=-155(LC 12), 28=-140(LC 12), 17=-155(LC 13), 16=-141(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 15, 22, 23, 24, 25, 26, 28, 21, 20, 19, 18, 16 except 27=265(LC 19), 17=264(LC 20)

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

# NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-11-4, Exterior(2R) 5-11-4 to 9-10-15, Interior(1) 9-10-15 to 21-10-10, Exterior(2R) 21-10-10 to 25-10-15, Interior(1) 25-10-15 to 27-5-15 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 15, 22, 23, 24, 25, 26, 21, 20, 19 except (jt=lb) 27=155, 28=140, 17=155, 16=141.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

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



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(lb) -Max Horz 1=-229(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 9 except 14=-145(LC 12), 15=-145(LC 12), 16=-142(LC 12), 12=-143(LC 13), 11=-146(LC 13), 10=-141(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 9, 13, 15, 16, 11, 10 except 14=261(LC 19), 12=259(LC 20)

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

TOP CHORD 1-2=-311/203. 8-9=-279/197

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 7-10-15, Exterior(2R) 7-10-15 to 10-10-15, Interior(1) 10-10-15 to 15-5-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) All plates are 2x4 MT20 unless otherwise indicated.

4) Gable requires continuous bottom chord bearing.

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9 except (jt=lb) 14=145, 15=145, 16=142, 12=143, 11=146, 10=141.

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.







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 system. See MSI/TP11 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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4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 6 except (it=lb) 7=164.

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

WEBS 4-6=-313/201, 2-7=-313/203

#### NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 3-10-15, Exterior(2R) 3-10-15 to 6-10-15, Interior(1) 6-10-15 to 7-5-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.

Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 180 lb uplift at joint 6 and 182 lb uplift at joint 7.

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



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BOT CHORD

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

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

REACTIONS. All bearings 11-9-14.

(lb) - Max Horz 1=-168(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 11=-150(LC 12), 12=-142(LC 12), 9=-149(LC 13), 8=-142(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 12, 8 except 11=262(LC 19), 9=261(LC 20)

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

#### NOTES-

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-3-15 to 3-3-15, Interior(1) 3-3-15 to 5-10-15, Exterior(2R) 5-10-15 to 8-10-15, Interior(1) 8-10-15 to 11-5-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) All plates are 2x4 MT20 unless otherwise indicated.

4) Gable requires continuous bottom chord bearing.

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 11=150, 12=142, 9=149, 8=142.

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.





<sup>1)</sup> Unbalanced roof live loads have been considered for this design.



3) Gable requires continuous bottom chord bearing.

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

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









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LOADING         (psf)         S           TCLL         25.0         P           TCDL         20.0         L           BCLL         0.0         R           BCDL         10.0         C	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr YES Code IRC2018/TPI2014	<b>CSI.</b> TC 0.27 BC 0.11 WB 0.05 Matrix-P	DEFL. ir Vert(LL) n/a Vert(CT) n/a Horz(CT) -0.00	(loc) l/defl L/d - n/a 999 - n/a 999 4 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 23 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 BOT CHORD	Structural wood sheathing dir except end verticals. Rigid ceiling directly applied o	ectly applied or 6-0-0 oc purlins, or 10-0-0 oc bracing.

REACTIONS. (size) 1=7-9-12, 4=7-9-12, 5=7-9-12 Max Horz 1=148(LC 9)

Max Uplift 4=-31(LC 9), 5=-128(LC 12) Max Grav 1=132(LC 20), 4=166(LC 1), 5=489(LC 1)

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

TOP CHORD 1-2=-251/176

WEBS 2-5=-400/265

# NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-10-4, Interior(1) 3-10-4 to 7-8-8 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 5=128.

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.







LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.         in         (loc)         l/defl         L/d           Vert(LL)         n/a         -         n/a         999           Vert(CT)         n/a         -         n/a         999           Horz(CT)         0.00         3         n/a         n/a           Weight:         16 lb         FT = 20%
TCLL 25.0	Plate Grip DOL 1.15	TC 0.64	
TCDL 20.0	Lumber DOL 1.15	BC 0.27	
BCLL 0.0	Rep Stress Incr YES	WB 0.00	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P	
LUMBER- TOP CHORD 2x4 S	PF No.2		BRACING- TOP CHORD Structural wood sheathing directly applied or 5-10-4 oc purlins,

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

**REACTIONS.** (size) 1=5-9-12, 3=5-9-12

Max Horz 1=106(LC 9) Max Uplift 1=-38(LC 12), 3=-65(LC 12)

Max Grav 1=279(LC 1), 3=279(LC 1)

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

#### NOTES-

 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=25ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-7-9 to 3-7-9, Interior(1) 3-7-9 to 5-8-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.







LOADING         (psf)           TCLL         25.0           TCDL         20.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCodeIRC2018/TPI2014	CSI. TC 0.22 BC 0.09 WB 0.00 Matrix-P	DEFL.inVert(LL)n/aVert(CT)n/aHorz(CT)0.00	(loc) l/defl L/d - n/a 999 - n/a 999 3 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 10 lb         FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF	F No.2 F No.2 F No.2 F No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing dir except end verticals. Rigid ceiling directly applied o	ectly applied or 3-10-4 oc purlins, or 10-0-0 oc bracing.

ACTIONS. (size) 1=3-9-12, 3=3-9-1

Max Horz 1=64(LC 9) Max Uplift 1=-23(LC 12), 3=-40(LC 12)

Max Grav 1=169(LC 1), 3=169(LC 1)

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

#### NOTES-

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







#### 2x4 💋

2x4 📚

<b> </b>			4-3-9 4-3-9		<u>4-4-1</u> 1 0-0-8	
Plate Offsets (X,Y)	[2:0-3-0,Edge]					
LOADING         (psf)           ICLL         25.0           ICDL         20.0           BCLL         0.0           BCDL         10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	<b>CSI.</b> TC 0.06 BC 0.10 WB 0.00 Matrix-P	DEFL. in Vert(LL) n/a Vert(CT) n/a Horz(CT) 0.00	n (loc) l/defl L/d a - n/a 999 a - n/a 999 0 3 n/a n/a	PLATES         GRIP           MT20         197/144           Weight: 9 lb         FT = 20%	
LUMBER-           TOP CHORD         2x4 SPF No.2           BOT CHORD         2x4 SPF No.2			BRACING- TOP CHORD BOT CHORD	CING- CHORD Structural wood sheathing directly applied or 4-4-1 oc purlins. CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.		
EACTIONS. (size	e) 1=4-3-1, 3=4-3-1					

Max Horz 1=-14(LC 17) Max Uplift 1=-23(LC 12), 3=-23(LC 13)

Max Grav 1=169(LC 1), 3=169(LC 1)

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

#### NOTES-

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

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

3) Gable requires continuous bottom chord bearing.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



September 21,2021

MiTek 16023 Swingley Ridge Rd Chesterfield, MO 63017

