



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

Re: 3043208 SUMMIT/COBEY CREEK #25/MO

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

Pages or sheets covered by this seal: I49701808 thru I49701880

My license renewal date for the state of Missouri is December 31, 2022.

Missouri COA: Engineering 001193



January 14,2022

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.



Scale = 1:53.4

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;	3-2-15 6-5-9	11-1-12 1	15-8-3	20-2-10	24-10-13	29-6-0				
	3-2-15 ' 3-2-10 '	4-8-3	4-6-7	4-6-7	4-8-3	4-7-3				
Plate Offsets (X,Y)	[2:0-3-8,Edge], [4:0-4-0,0-1-15], [9:0-	4-0,0-1-9], [11:0-4-9,0-0-1]								
LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.78 BC 0.91 WB 0.44 Matrix-MS	DEFL. Vert(LL) (Vert(CT) -(Horz(CT) (in (loc) l/defl 0.34 14-16 >999 0.59 14-16 >598 0.12 11 n/a	L/d 240 180 n/a	PLATES GRIP MT20 197/144 Weight: 123 lb FT = 20%				
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF OTHERS 2x4 SF WEDGE Left: 2x4 SPF No.2 SLIDER Right 2	PF No.2 PF 1650F 1.5E PF No.2 PF No.2 2x6 SPF No.2 2-6-0		BRACING- TOP CHORD BOT CHORD	Structural wood 2-0-0 oc purlins Rigid ceiling dir	I sheathing dire ; (2-7-5 max.): 4 ectly applied or	ctly applied or 2-9-2 oc purlins, except 4-9. 5-9-7 oc bracing.				
REACTIONS. (size) 2=0-3-8, 11=0-5-8 Max Horz 2=89(LC 28) Max Uplift 2=-657(LC 8), 11=-698(LC 9) Max Grav 2=1797(LC 1), 11=1773(LC 1)										
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2982/1151, 3-4=-2867/1187, 4-5=-3526/1507, 5-6=-3525/1506, 6-8=-3235/1396, 8-9=-3236/1397, 9-11=-2378/1019 BOT CHORD 2-18=-1013/2580, 17-18=-1013/2580, 16-17=-1037/2554, 14-16=-1569/3621, 13-14=-763/1918, 11-13=-763/1921 WEBS 4-16=-591/1270, 5-16=-437/272, 8-14=-450/280, 9-14=-750/1679, 6-14=-503/278										
 WEBS 4-16=-591/1270, 5-16=-437/272, 8-14=-450/280, 9-14=-750/1679, 6-14=-503/278 NOTES- Uhbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60 Provide adequate drainage to prevent water ponding. This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=657, 11=698. This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines. 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) Stan 1) Dead + Roof Live (b Uniform Loads (plf)	dard balanced): Lumber Increase=1.15, Pla	e Increase=1.15				SSIONAL ENGLIS				

Vert: 1-4=-70, 4-9=-70, 9-12=-70, 19-22=-20

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO
					149701808
3043208	A1	Hip Girder	1	1	
					Job Reference (optional)
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.	430 s Aug	16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:10 2022 Page 2

ID:9TfwzKJJ_y34AD7?hPVfOzykJh0-sW2ZGStWzQAkz6xgofmOXIv2bgNgdh2yAXrAhZzvkKp

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 18=-132(B) 16=-18(B) 5=-28(B) 9=-28(B) 13=-18(B) 26=-28(B) 27=-28(B) 28=-28(B) 29=-28(B) 30=-28(B) 31=-28(B) 32=-28(B) 33=-28(B) 35=-28(B) 35=-18(B) 3





Scale = 1:52.0



	9-9-9	16-1-3		22-4-13		29-6-0	1		
	9-9-9	6-3-10		6-3-10	1	7-1-3	I		
Plate Offsets (X,Y)	[2:0-3-8,Edge], [6:0-4-0,0-1-9], [8:0-5-1,	Edge]							
LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.55 BC 0.73 WB 0.94 Matrix-AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) l/defl -0.15 13-16 >999 -0.31 13-16 >999 0.09 8 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 118 lb	GRIP 197/144 FT = 20%		
LUMBER- TOP CHORD 2x4 SP BOT CHORD 2x4 SP WEBS 2x4 SP WEDGE Left: 2x4 SPF No.2 SLIDER Right 2	PF No.2 PF No.2 PF No.2 PF No.2 x6 SPF No.2 2-6-0		BRACING- TOP CHORI BOT CHORI	D Structural wood 2-0-0 oc purlins D Rigid ceiling dir	sheathing dir (3-11-11 max ectly applied.	ectly applied, except (.): 4-6.			
REACTIONS. (size) 2=0-3-8, 8=0-5-8 Max Horz 2=130(LC 11) Max Uplift 2=-202(LC 12), 8=-180(LC 13) Max Grav 2=1389(LC 1), 8=1389(LC 1)									
FORCES. (lb) - Max. TOP CHORD 2-3=- BOT CHORD 2-13= WEBS 4-13=	FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2272/345, 3-4=-2000/293, 4-5=-1733/296, 5-6=-1424/258, 6-8=-1817/248 BOT CHORD 2-13=-311/1955, 11-13=-227/1981, 10-11=-227/1981, 8-10=-92/1438 WEBS 4-13=-22/481, 5-13=-451/126, 5-10=-813/196, 6-10=-41/596, 3-13=-257/142								
 WEBS 4-13=-22/481, 5-13=-451/126, 5-10=-813/196, 6-10=-41/596, 3-13=-257/142 NOTES- Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 9-9-9, Exterior(2R) 9-9-9 to 14-0-8, Interior(1) 14-0-8 to 22-4-13, Exterior(2R) 22-4-13 to 26-7-12, Interior(1) 26-7-12 to 30-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 Provide adequate drainage to prevent water ponding. This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2-202, 8-180. This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANS/ITPI 1. This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord. Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. 									







Max Grav 2=1389(LC 1), 8=1389(LC 1)

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

- TOP CHORD 2-3=-2163/272, 3-4=-2088/373, 4-5=-1315/259, 5-6=-1649/259, 6-8=-1816/263
- BOT CHORD 2-12=-196/1813, 10-12=-102/1430, 8-10=-138/1448
- WEBS 4-10=-282/124, 5-10=-21/462, 3-12=-448/260, 4-12=-221/778

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 13-1-9, Exterior(2R) 13-1-9 to 17-4-8, Interior(1) 17-4-8 to 19-10-13, Exterior(2R) 19-10-13 to 24-1-12, Interior(1) 24-1-12 to 30-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=173, 8=138.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 7) 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.







	0-2-10	10-5-9	1,7-4-1,3	23-3-11	29-6-0
	8-2-15	8-2-10	0-11-4	5-10-13	6-2-5
Plate Offsets (X,Y)	[2:0-3-8,Edge], [5:0-4-0,0-1-15], [6:0-5-	1,Edge], [9:0-5-1,Edge], [12:0-4	-0,0-2-4]		
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in	(loc) l/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.61	Vert(LL) -0.09	12-14 >999 240	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.58	Vert(CT) -0.21	12-14 >999 180	
BCLL 0.0	Rep Stress Incr YES	WB 0.32	Horz(CT) 0.08	9 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS			Weight: 128 lb FT = 20%
LUMBER-			BRACING-	2	
TOP CHORD 2x4 SI	PF No.2		TOP CHORD	Structural wood sheathing c	lirectly applied, except
BOT CHORD 2x4 SI	PF No.2			2-0-0 oc purlins (4-8-10 ma	(.): 5-6.
WEBS 2x4 SI	PF No.2		BOT CHORD	Rigid ceiling directly applied	
WEDGE			WEBS	1 Row at midpt	3-12, 7-12
Left: 2x4 SPF No.2					
	DVE EDE No 2 2 E 0				

DNS. (size) 2=0-3-8, 9=0-5-8 Max Horz 2=214(LC 11) Max Uplift 2=-192(LC 12), 9=-156(LC 13) Max Grav 2=1389(LC 1), 9=1389(LC 1)

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

- TOP CHORD 2-3=-2215/293, 3-5=-1457/251, 5-6=-1181/261, 6-7=-1446/252, 7-9=-1833/237
- BOT CHORD 2-14=-291/1878, 12-14=-291/1878, 11-12=-105/1457, 9-11=-105/1457
- WEBS 5-12=-77/380, 3-14=0/319, 3-12=-814/258, 6-12=-154/612, 7-12=-444/199

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 16-5-9, Exterior(2E) 16-5-9 to 17-4-13, Exterior(2R) 17-4-13 to 21-7-12, Interior(1) 21-7-12 to 30-4-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=192, 9=156.
- 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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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.



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Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO	
						149701813
3043208	A6	Roof Special Girder	1	2		
				_	Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Aug	16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:32 2022	Page 2

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LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-5=-70, 5-8=-70, 12-15=-20

Concentrated Loads (lb)

Vert: 9=-2787(F) 18=-516(F) 19=-516(F) 20=-516(F) 21=-516(F)





January 14,2022

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January 14,2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEX 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 **MISI/TPI 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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- sheetrock be applied directly to the bottom chord.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss 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

40000 January 14,2022





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Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO	
						149701819
3043208	A12	ROOF SPECIAL GIRDER	1	2	lob Reference (ontional)	
Builders FirstSource (Valley	Center), Valley Center, K	S - 67147,	8.	430 s Aug	16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:14 2022	Page 2

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NOTES-

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

LOAD CASE(S) Standard

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

Vert: 1-3=-70, 3-4=-70, 4-6=-70, 6-11=-70, 18-21=-20

Concentrated Loads (lb)

Vert: 12=-516(B) 23=-528(B) 25=-2813(B) 26=-516(B) 27=-516(B) 28=-516(B) 29=-527(B)





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LUMBER-		BRACING-			
TOP CHORD 2x4 SPF No.2		TOP CHORD	Structural wood sheathing d	irectly applied, except	
BOT CHORD 2x4 SPF No.2			2-0-0 oc purlins (3-6-1 max.)	: 3-4.	
WEBS 2x4 SPF No.2		BOT CHORD	Rigid ceiling directly applied		
WEDGE		WEBS	1 Row at midpt	4-15, 5-13, 8-13	
Left: 2x6 SPF No.2					
SLIDER Right 2x4 SPF No.2 2-6-0					

REACTIONS. (size) 2=0-3-8, 10=0-3-8 Max Horz 2=263(LC 11) Max Uplift 2=-247(LC 12), 10=-190(LC 13) Max Grav 2=1726(LC 1), 10=1726(LC 1)

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

 TOP CHORD
 2-3=-2975/399, 3-4=-2522/396, 4-5=-2535/367, 5-6=-1733/344, 6-8=-1889/356, 8-10=-2352/325

 BOT CHORD
 2-17=-427/2563, 15-17=-495/3052, 13-15=-277/2176, 12-13=-144/1867, 10-12=-144/1867

 WEBS
 3-17=-75/1040, 4-15=-1005/250, 5-15=-53/658, 5-13=-1062/281, 6-13=-191/1237, 8-13=-576/250, 8-12=0/281, 4-17=-1056/159

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-9-14, Interior(1) 2-9-14 to 6-11-8, Exterior(2E) 6-11-8 to 8-11-8, Interior(1) 8-11-8 to 22-1-11, Exterior(2R) 22-1-11 to 25-10-2, Interior(1) 25-10-2 to 37-10-8 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=247, 10=190.
- 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

MiTek

16023 Swingley Ridge Rd Chesterfield, MO 63017





Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO		
						I49701822	
3043208	A15	Roof Special Girder	1	1			
					Job Reference (optional)		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,		S - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:18 2022 Page 2				
		ID:9Tfv	ID:9TfwzKJJ_y34AD7?hPVfOzykJh0-d3XbyBzX4uAcxLYDGLv0			5zvkKh	

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-3=-70, 3-4=-70, 4-8=-70, 8-12=-70, 18-21=-20

Concentrated Loads (lb) Vert: 25=-682(F)





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H	3-8-8 6-8-0 12-2-1	17-8-3	18-4-0 20-3-8 21-11-1	14 26-0-0	33-8-8 35-0-0			
Plate Offecte (X V)	<u>3-8-8</u> <u>2-11-8</u> <u>5-6-1</u> [2:Edgo 0 2 0] [9:0 4 0 0 1 0] [0:0 2 0	0 1 14] [14:0 4 9 0 2 0] [1	0-7-131-11-8 1-8-6	<u>9 0 2 01</u>	7-8-8 1-3-8			
1 Idle Ulisels (A, I)	[2.Luge,0-2-9], [0.0-4-0,0-1-9], [9.0-3-0,	<u>0-1-1+</u>], [14.0-4-0,0-2-0], [13.0-3-0,0-3-0], [21.0-3	-0,0-2-0]				
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCodeIRC2018/TPI2014	CSI. TC 0.50 BC 0.99 WB 0.82 Matrix-AS	DEFL. ir Vert(LL) -0.39 Vert(CT) -0.86 Horz(CT) 0.21	n (loc) l/defl L/d 18-19 >999 240 18-19 >484 180 12 n/a n/a	PLATES GRIP MT20 197/144 Weight: 178 lb FT = 20%			
LUMBER- TOP CHORD 2x4 SI BOT CHORD 2x4 SI WEBS 2x4 SI WEDGE Left: 2x6 SPF No.2	PF No.2 PF No.2 PF No.2 PF No.2		BRACING- TOP CHORD BOT CHORD WEBS	Structural wood sheathing 2-0-0 oc purlins (3-11-14 n Rigid ceiling directly applie 1 Row at midpt	directly applied, except end verticals, and nax.): 7-8, 9-11. d. 11-12, 10-14			
REACTIONS. (siz Max H Max U Max C	e) 12=Mechanical, 2=0-3-8 Horz 2=306(LC 11) Jplift 12=-183(LC 13), 2=-213(LC 12) Grav 12=1568(LC 1), 2=1630(LC 1)							
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2692/341, 3-5=-3658/491, 5-6=-3806/586, 6-7=-2029/361, 7-8=-1734/346, 8-9=-2398/456, 9-10=-1980/328, 12-14=-1529/226 BOT CHORD 2-21=-500/2323, 5-19=-365/153, 18-19=-504/2299, 16-18=-327/1590, 15-16=-243/1165, 14-15=-236/1210 WEBS 6-19=-268/1414, 9-16=-1524/327, 10-14=-1749/296, 10-16=-173/1259, 7-18=-57/533, 8-16=-161/801, 8-18=-87/442, 6-18=-804/274, 3-21=-904/193, 19-21=-442/2348, 3-19=-168/1012								
 NOTES- Uhbalanced roof liv Wind: ASCE 7-16; MWFRS (envelope) Interior(1) 21-2-3 to ; end vertical left an DOL=1.60 Provide adequate d All plates are 2x4 M This truss has been Refer to girder(s) fo Provide mechanica 12=183, 2=213. This truss is design referenced standarr This truss design re sheetrock be applie Graphical purlin re 	e loads have been considered for this de Vult=115mph (3-second gust) Vasd=91m) gable end zone and C-C Exterior(2E) -(21-11-14, Exterior(2R) 21-11-14 to 25-5 d right exposed;C-C for members and for Irainage to prevent water ponding. IT20 unless otherwise indicated. d designed for a 10.0 psf bottom chord liv r truss to truss connections. I connection (by others) of truss to bearir ed in accordance with the 2018 Internation d ANSI/TP1 1. equires that a minimum of 7/16" structura d directly to the bottom chord. epresentation does not depict the size or	sign. ph; TCDL=6.0psf; BCDL=4 10-8 to 2-7-8, Interior(1) 2 -14, Interior(1) 25-5-14 to 3 rces & MWFRS for reaction e load nonconcurrent with g plate capable of withstar onal Residential Code sect I wood sheathing be applie the orientation of the purlin	4.2psf; h=15ft; Cat. II; E 2-7-8 to 17-8-3, Exterior 34-10-4 zone; cantileve ns shown; Lumber DOL any other live loads. nding 100 lb uplift at joir ions R502.11.1 and R8 d directly to the top cho along the top and/or b	Exp C; Enclosed; r(2R) 17-8-3 to 21-2-3, r left and right exposed L=1.60 plate grip ht(s) except (jt=lb) i02.10.2 and brd and 1/2" gypsum ottom chord.	S ONAL ENGLISH			





	0-0-0		45	20-5-0	21-0	2		33-0-0	1.0.0
	3-5-6 3-2-10	7-	8-3	3-11-13 1-11-8	6-8	-8	0-6-0	6-2-8	1-3-8
Plate Offsets (X,Y)	[2:Edge,0-2-9], [5:0-0-12	2,0-1-12], [6:0-7	-4,0-1-8], [15:0-3-8,0-2	-0], [16:0-4-0,0-3-4],	[21:0-8-0,0-3-0) <u>], [</u> 23:0-3-8,0)-2-0]		
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI. TC 0.82 BC 0.92 WB 0.79	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.21 20-21 -0.44 20-21 0.18 11	l/defl l >999 2 >944 1 n/a r	L/d 40 80 n/a	PLATES MT20 MT20HS	GRIP 197/144 148/108
BCDL 10.0	Code IRC2018/T	PI2014	Matrix-AS					Weight: 171 lt	FT = 20%
LUMBER- TOP CHORD 2x4 Sf BOT CHORD 2x4 Sf WEBS 2x4 Sf WEDGE Left: 2x6 SPF No.2	PF No.2 PF No.2 PF No.2			BRACING TOP CHOI BOT CHOI WEBS	RD Structu 2-0-0 c RD Rigid c 1 Row	ural wood she oc purlins (3-3 eiling directly at midpt	eathing dire 3-13 max.) / applied. 10	ectly applied, excep : 6-10. 0-11, 5-20	t end verticals, and
REACTIONS. (size) 11=Mechanical, 2=0-3-8 Max Horz 2=277(LC 11) Max Uplift 11=-270(LC 9), 2=-190(LC 12) Max Grav 11=1568(LC 1), 2=1630(LC 1)									
FORCES. (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2672/293, 3-5=-3724/461, 5-6=-2499/321, 6-7=-2148/324, 7-9=-2155/323, 9-10=-1511/247, 11-13=-1532/273, 10-13=-1493/289 BOT CHORD 2-23=-490/302, 5-21=-53/575, 20-21=-710/3452, 19-20=-415/2117, 16-19=-401/2098, 7-16=-492/174, 15-16=-320/1511 WEBS 5-20=-1393/350, 6-20=-49/576, 6-16=-138/270, 9-16=-151/849, 9-15=-1115/292,									
NOTES- 1) Unbalanced roof liv 2) Wind: ASCE 7-16; \ MWFRS (envelope) Interior(1) 19-3-9 to & MWFRS for react 3) Provide adequate d 4) All plates are MT20 5) This truss has been 6) Refer to girder(s) fo 7) Provide mechanical 11=270, 2=190. 8) This truss is design.	e loads have been consid /ult=115mph (3-second g gable end zone and C-C 34-10-4 zone; cantilever ions shown; Lumber DOI rainage to prevent water plates unless otherwise designed for a 10.0 psf I r truss to truss connection connection (by others) of end in accordance with the	lered for this de gust) Vasd=91m Exterior(2E) -0 left and right ex _=1.60 plate grip ponding. indicated. pottom chord liv ns. f truss to bearin	sign. ph; TCDL=6.0psf; BCE -10-8 to 2-7-8, Interiori posed ; end vertical le o DOL=1.60 e load nonconcurrent v g plate capable of with	DL=4.2psf; h=15ft; C (1) 2-7-8 to 14-4-3, t ft and right exposed vith any other live lo standing 100 lb uplit sections R502 11 1	at. II; Exp C; Er Exterior(2R) 14- C-C for member ads. t at joint(s) exce and R802 10 2	nclosed; 4-3 to 19-3-9 ers and force: ept (jt=lb)), S	STATE OF	MISSOL GANG

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.





	3-4-3	6-8-0	11-0-3	18-4-0	20-3-8	27-0-0	27-6 ₀	33-8-8	35-0-0	
	3-4-3	3-3-13	4-4-3	7-3-13	1-11-8	6-8-8	0-6-0	6-2-8	1-3-8	
Plate Offse	ts (X,Y)	[2:0-3-8,Edge], [5:0-	4-0,0-1-15], [15:0-3	-8,0-2-0], [16:0-6-0,Edge]	, [21:0-7-12,0-3-0], [23:	0-3-8,0-2-0]				
LOADING TCLL TCDL BCLL BCDL	(psf) 25.0 10.0 0.0 10.0	SPACING- Plate Grip DC Lumber DOL Rep Stress Ir Code IRC20	2-0-0 DL 1.15 1.15 nor YES 18/TPI2014	CSI. TC 0.86 BC 0.94 WB 0.58 Matrix-AS	DEFL. Vert(LL) -0.2 Vert(CT) -0.5 Horz(CT) 0.2	n (loc) l/defl 4 19-20 >999 5 19-20 >755 0 11 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 161 lb	GRIP 197/144 FT = 20%	
LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2 WEDGE Left: 2x4 SPF No.2					BRACING- TOP CHORD BOT CHORD WEBS	Structural wood 2-0-0 oc purlins Rigid ceiling dir 1 Row at midpt	sheathing dire (2-7-14 max.): ectly applied. 10	ectly applied, except o : 5-10.)-11	end verticals, and	
REACTION	REACTIONS. (size) 11=Mechanical, 2=0-3-8 Max Horz 2=215(LC 11) Max Uplift 11=-275(LC 9), 2=-162(LC 12) Max Grav 11=1568(LC 1), 2=1630(LC 1)									
FORCES. TOP CHOR	(lb) - Max. RD 2-3=- 7-9=-	Comp./Max. Ten A 2674/302, 3-4=-368 2928/469, 9-10=-204	All forces 250 (lb) or 2/479, 4-5=-2910/40 46/336, 11-13=-153	less except when shown. 05, 5-6=-2534/376, 6-7=-2 1/280, 10-13=-1489/299	928/456,					

- BOT CHORD 2-23=-450/2309, 4-21=-84/539, 20-21=-624/3315, 19-20=-557/2896, 16-19=-516/2914, 7-16=-423/146, 15-16=-409/2046
- WEBS 4-20=-875/221, 5-20=-98/953, 3-23=-818/182, 21-23=-439/2188, 3-21=-177/1005, 6-20=-643/200, 9-16=-171/1044, 9-15=-1119/292, 10-15=-413/2353

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-7-8, Interior(1) 2-7-8 to 11-0-3, Exterior(2R) 11-0-3 to 15-11-9, Interior(1) 15-11-9 to 34-10-4 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) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=275, 2=162.
- 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.







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 preven tbuckling 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 sand truss systems, see
 MSIVTP11 Quality Criteria, DSB-89 and BCSI Building Component
 Safety Information
 available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO		
3043208	A 21	Roof Special Girder	1	1	14970182	28	
3043200	721		'	'	Job Reference (optional)		
Builders FirstSource (Valley Center), Valley Center, KS - 67147,		S - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:28 2022 Page 2				
		ID:9Tf	ID:9TfwzKJJ_y34AD7?hPVfOzykJh0-K_8N2c5ojyRB7tJ8rR5cGYe4ewV4rnecJKC7KWzvkk				

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 3=-32(F) 14=-55(F) 15=-32(F) 16=-32(F) 17=-32(F) 18=-32(F) 19=-32(F) 20=-32(F) 21=-27(F) 23=-48(F) 24=-48(F) 25=-48(F) 26=-48(F) 27=-48(F) 29=-48(F) 29=-48(F) 20=-32(F) 16=-32(F) 1





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



Mitek° 16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty Ply	SUMMIT/COBEY CREEK #25/MO	
3043208	B2	Common Girder			149701830
Puildora EiratSouraa ()/a	llov Contor) Vallov Contor K	S 67147	8 420 c Auc	Job Reference (optional)	an 12 15:04:27 2022 Bage 1
Builders FirstSource (Va	illey Center), Valley Center, r	ID:9	TfwzKJJ_y34AD7?hP	/fOzykJh0-ZjBmxhCScjZviGVttqlj7RWr	mMZmXSp8wOEt68VzvkKO
	2-2-9	4-5-12 8-8-0 2-3-3 4-2-4	<u>12-10-4 15-</u> 4-2-4 2-3	<u>1-7 17-4-0 18-2-8</u> 3-3 2-2-9 0-10-8	
		4×8			Scale = 1:53.0
		470 11			
	8-1-15 0-11-4 1	10.00 12 4x8 / 2	4x8	×	
	⊠ 17 8x12 \\	18 10 9 19 8 20 HUS26 7x8 = HUS26	21 7 HUS26		
	HUS26	4x12 HUS26	4x12	8x12 //	
		HUS26	10020		
		1-5-12 8-8-0 1-5-12 4-2-4	12-10-4 4-2-4	4-5-12	
Plate Offsets (X,Y)	[1:0-2-15,Edge], [5:0-2-15,Edge]	<u> , [7:0-7-4,0-2-0], [8:0-8-0,0-4-0], [10:0-7-4,0-2</u>	2-0]		
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15 Rep Stress Incr NC Code IRC2018/TPI2014	CSI. DEFL TC 0.36 Vert(L BC 0.24 Vert(C WB 0.80 Horz(Matrix-MS Matrix-MS Matrix-MS	. in (loc) L) -0.08 8-10 CT) -0.14 8-10 CT) 0.02 5	I/defl L/d PLATES >999 240 MT20 >999 180 MT20 n/a n/a Weight:	S GRIP 197/144 252 lb FT = 20%
LUMBER-		BRAC	ING-		
TOP CHORD 2x4 SP BOT CHORD 2x10 SI WEBS 2x4 SP WEDGE	F No.2 P 2400F 2.0E F No.2	TOP (BOT (CHORD Structur CHORD Rigid ce	al wood sheathing directly applied or illing directly applied or 10-0-0 oc bra	r 4-4-13 oc purlins. acing.
Leit. 2x0 3PP N0.2 , Ri	911. 2x0 3FF NO.2				
REACTIONS. (size Max He Max U Max G	e) 1=0-3-8, 5=0-3-8 orz 1=-181(LC 6) plift 1=-1012(LC 8), 5=-965(LC 9 rav 1=7187(LC 1), 5=4896(LC 1)))			
FORCES. (lb) - Max. TOP CHORD 1-2=- BOT CHORD 1-10= WEBS 3-8=-	Comp./Max. Ten All forces 25 7419/1133, 2-3=-5429/1003, 3-4 881/5625, 8-10=-881/5625, 7-8 1179/6518, 4-8=-976/487, 4-7=-	0 (lb) or less except when shown. =-5409/1004, 4-5=-6342/1268 =-905/4789, 5-7=-905/4789 428/1031, 2-8=-2146/343, 2-10=-235/2520			
 NOTES- 1) 2-ply truss to be con Top chords connected Bottom chords connected Bottom chords connected as 2) All loads are conside ply connections have 3) Unbalanced roof live 4) Wind: ASCE 7-16; V MWFRS (envelope) grip DOL=1.60 5) The Fabrication Tole 6) This truss has been 7) Provide mechanical 1=1012, 5=965. 8) This truss is designe referenced standard 9) Use Simpson Strong 1-0-12 from the left e 10) Use Simpson Strong face of bottom chor 11) Fill all nail holes what 	nected together with 10d (0.131' ad as follows: 2x4 - 1 row at 0-7- ected as follows: 2x10 - 2 rows s follows: 2x4 - 1 row at 0-9-0 oc. red equally applied to all plies, e been provided to distribute only loads have been considered for ult=115mph (3-second gust) Va- gable end zone; cantilever left a erance at joint 1 = 12%, joint 5 = designed for a 10.0 psf bottom c connection (by others) of truss to d in accordance with the 2018 In ANSI/TPI 1. I-Tie HUS26 (14-10d Girder, 6-1 and to 11-0-12 to connect truss(e ing-Tie LUS26 (4-10d Girder, 4-1) rd, skewed 0.0 deg.to the right, s iere hanger is in contact with lun dard	 'x3") nails as follows: 0 oc. taggered at 0-5-0 oc. except if noted as front (F) or back (B) face in / loads noted as (F) or (B), unless otherwise in · this design. sd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=16 nd right exposed ; end vertical left and right exposed ; end vertical left exposed ; end vert	the LOAD CASE(S) s ndicated. 5ft; Cat. II; Exp C; Enc xposed; Lumber DOL ve loads. uplift at joint(s) excep 11.1 and R802.10.2 a iced at 2-0-0 oc max. ft end to connect truss	section. Ply to closed; =1.60 plate pt (jt=lb) nd starting at s(es) to front	OF MISSOURCE
Continued on page 2				_	= =
WARNING - Verify des Design valid for use only a truss system. Before u building design. Bracing is always required for sta	sign parameters and READ NOTES ON TH with MITek® connectors. This design is se, the building designer must verify the e indicated is to prevent buckling of individ with possib	HIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 based only upon parameters shown, and is for an individu applicability of design parameters and properly incorporate fual truss web and/or chord members only. Additional ter le personal injury and property damage. Ere caperal quid	rev. 5/19/2020 BEFORE US al building component, not this design into the overal apporary and permanent brack appeared and the	E. Cing	ek

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 ocllapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO	
	-				1497018	330
3043208	B2	Common Girder	1	2		
					Job Reference (optional)	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,			8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:38 2022 Page 2			

ID:9TfwzKJJ_y34AD7?hPVfOzykJh0-1vl991D4N1hmKQ43RYGygf3x6y6mBGN4cudfgxzvkKN

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-3=-70, 3-6=-70, 11-14=-20

Concentrated Loads (lb)

Vert: 9=-1548(F) 7=-1042(F) 17=-1680(F) 18=-1548(F) 19=-1548(F) 20=-1548(F) 21=-1548(F)





REACTIONS. All bearings 12-2-8.

(lb) - Max Horz 24=161(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 14, 20, 21, 22, 18, 17, 16 except 24=-123(LC 8), 23=-134(LC 12), 15=-122(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-1-4, Exterior(2N) 2-1-4 to 6-1-4, Corner(3R) 6-1-4 to 9-1-4, Exterior(2N) 9-1-4 to 13-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

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

5) Gable requires continuous bottom chord bearing.

6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 20, 21, 22, 18, 17, 16 except (jt=lb) 24=123, 23=134, 15=122.

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





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



- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-1-4, Exterior(2R) 6-1-4 to 9-1-4, Interior(1) 9-1-4 to 12-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown: Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 5) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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.



 00 BEFORE USE.

 pmponent, not

 into the overall

 bermanent bracing

 ng the

 I BCSI Building Component

 16023 Swingley Ridge Rd

 Chesterfield, MO 63017



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

16023 Swingley Ridge Rd Chesterfield, MO 63017

January 14,2022



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Mitek° 16023 Swingley Ridge Rd Chesterfield, MO 63017

Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO	
	-					I49701834
3043208	C4	Flat	1	1		
					Job Reference (optional)	
Builders FirstSource (Valley	Center), Valley Center, k	KS - 67147,	8	430 s Aug	16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:42 2022	Page 2
		ID:9T	fwzKJJ_y3	34AD7?hP	VfOzykJh0-wg_f_OGaQGCCp1OqgNLuqVEV3aVt73jfXVb	tpizvkKJ

LOAD CASE(S) Standard Concentrated Loads (Ib)

Vert: 2=-884 7=-883 9=-883 10=-973 12=-973





		3-1-6	5-5-5	
Plate Offsets (X,Y)	[3:0-3-4,0-3-7]	3-1-0	2-3-13	
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.28	Vert(LL) -0.03 6 >999 240	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.41	Vert(CT) -0.06 5-6 >999 180	
BCLL 0.0	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.01 5 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MR		Weight: 15 lb FT = 20%
LUMBER-		- I	BRACING-	

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 4=Mechanical, 2=0-4-9, 5=Mechanical

Max Horz 2=76(LC 4)

Max Uplift 4=-41(LC 8), 2=-83(LC 4), 5=-11(LC 8) Max Grav 4=133(LC 1), 2=341(LC 1), 5=101(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-336/38

BOT CHORD 2-7=-71/288

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 6) "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=-70, 7-8=-20, 5-6=-20

Concentrated Loads (lb) Vert: 7=-4(F=-2, B=-2)

ALLIN MIS 0 "In Think XUEGANG 1 IU E-29713 C 0 S S/ONALE Thin January 14,2022

Structural wood sheathing directly applied or 5-5-5 oc purlins.

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




			5-1-15 4-7-4	
Plate Offsets (X,Y)	[2:0-1-11,0-0-8], [2:0-0-1,1-2-5]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.23	Vert(LL) -0.02 6-11 >999 240	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.24	Vert(CT) -0.05 6-11 >999 180	
BCLL 0.0	Rep Stress Incr NO	WB 0.01	Horz(CT) 0.01 4 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP		Weight: 15 lb FT = 20%
	E No 2		BRACING-	lizectly applied or 5.1.15 oc purling

BOT CHORD

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

TOP CHORD2x4 SPF No.2BOT CHORD2x4 SPF No.2WEBS2x4 SPF No.2WEDGEVEDGE

Left: 2x4 SPF No.2

REACTIONS. (size) 4=Mechanical, 2=0-6-5, 5=Mechanical Max Horz 2=64(LC 4) Max Uplift 4=-33(LC 8), 2=-81(LC 4), 5=-14(LC 8) Max Grav 4=107(LC 1), 2=338(LC 1), 5=82(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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

referenced standard ANSI/TPI 1.

6) "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=-70, 5-7=-20 Concentrated Loads (lb) Vert: 6=-3(F) 11=-0(B)







	<u>0-6</u> - 0-6-	11 11	<u>3-1-7</u> 2-6-12	3-6-4	
Plate Offsets (X,Y)	[2:0-1-11,0-0-0], [2:0-0-1,1-2-5]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/def	I L/d PLATES	GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.09	Vert(LL) -0.00 10 >999	9 240 MT20	197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(CT) -0.01 10 >999	180	
BCLL 0.0	Rep Stress Incr NO	WB 0.00	Horz(CT) 0.00 4 n/a	a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP		Weight: 11	lb FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 4=Mechanical, 2=0-6-5 Max Horz 2=48(LC 21)

Max Uplift 4=-26(LC 8), 2=-72(LC 4) Max Grav 4=101(LC 1), 2=274(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) Refer to girder(s) for truss to truss connections.
- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- referenced standard ANSI/TPL1.
- 6) "NAILED" indicates 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=-70, 5-6=-20

Concentrated Loads (lb) Vert: 5=-9(F) XUEGANG LIU NUMBER E-29713 January 14,2022

Structural wood sheathing directly applied or 3-6-4 oc purlins.

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





OADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.17	Vert(LL) -0.01 5 >999 240	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.14	Vert(CT) -0.01 5 >999 180	
BCLL 0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) -0.01 3 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP		Weight: 11 lb FT = 20%

BOT CHORD

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

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEDGE Left: 2x6 SPF No.2

REACTIONS. (size) 3=Mechanical, 2=0-6-13, 4=Mechanical Max Horz 2=63(LC 12) Max Uplift 3=-33(LC 12), 2=-43(LC 12), 4=-8(LC 1) Max Grav 3=51(LC 1), 2=313(LC 1), 4=29(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) 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.







	[2.0 0 0,0 1 3]; [2.0 2 10,0 7 0]			
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYES	CSI. TC 0.21 BC 0.13 WB 0.00	DEFL. in (loc) l/defl L/d Vert(LL) -0.01 4-8 >999 240 Vert(CT) -0.01 4-8 >999 180 Horz(CT) 0.01 3 n/a n/a	PLATES GRIP MT20 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 14 lb $FT = 20\%$
LUMBER- TOP CHORD 2x4 SI	PF No.2	1	BRACING- TOP CHORD Structural wood sheathing dire	ctly applied.

BOT CHORD

Rigid ceiling directly applied.

TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEDGE Left: 2x6 SPF No.2

REACTIONS. (size) 3=Mechanical, 2=0-6-13, 4=Mechanical Max Horz 2=84(LC 12) Max Uplift 3=-53(LC 12), 2=-46(LC 12) Max Grav 3=102(LC 1), 2=351(LC 1), 4=60(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-4 to 3-4-10, Exterior(2R) 3-4-10 to 4-7-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







LOADING TCLL TCDL	G (psf) 25.0 10.0	SPACING- 2-0-0 Plate Grip DOL 1.15 Lumber DOL 1.15	CSI. TC 0.10 BC 0.03	DEFL. Vert(LL) -0. Vert(CT) -0.	in (loc) 0.00 7 0.00 7	l/defl >999 >999	L/d 240 180	PLATES MT20	GRIP 197/144
BCLL BCDL	0.0 10.0	Rep Stress Incr YES Code IRC2018/TPI2014	WB 0.00 Matrix-MP	Horz(CT) 0	0.00 3	n/a	n/a	Weight: 9 lb	FT = 20%

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

Max Horz 2=53(LC 8)

Max Uplift 3=-24(LC 12), 2=-68(LC 8)

Max Grav 3=58(LC 1), 2=219(LC 1), 4=48(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) 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.
- 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 2-6-5 oc purlins.

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



REACTIONS. (size) 3=Mechanical, 2=0-4-9, 4=Mechanical



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TOP CHORD2x4 SPF No.2BOT CHORD2x4 SPF No.2WEBS2x4 SPF No.2

BRACING-TOP CHORD

Structural wood sheathing directly applied or 2-10-9 oc purlins, except end verticals.

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

REACTIONS. (size) 5=0-7-14, 3=Mechanical, 4=Mechanical

Max Horz 5=68(LC 12)

Max Uplift 5=-34(LC 12), 3=-42(LC 12)

Max Grav 5=267(LC 1), 3=66(LC 1), 4=48(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-5-10 to 1-6-6, Interior(1) 1-6-6 to 2-9-13 zone; cantilever left and right exposed; end 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) 5, 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.







			1-1-0	0-5-10	1
LOADING (psf) TCLL 25.0	SPACING- 2-0-0 Plate Grip DOL 1.15	CSI. TC 0.08	DEFL. in (loc) l/de Vert(LL) -0.00 5 >99	efl L/d 99 240	PLATES GRIP MT20 197/144
TCDL 10.0	Lumber DOL 1.15 Rep Stress Incr. VES	BC 0.08	Vert(CT) -0.00 5 >99	9 180 /a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP	1012(01) -0.00 3 11	in 11/d	Weight: 5 lb FT = 20%

BRACING-TOP CHORD

BOT CHORD

LUMBER-

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

REACTIONS. (size) 3=Mechanical, 2=0-6-5, 4=Mechanical Max Horz 2=28(LC 8)

Max Uplift 3=-12(LC 1), 2=-88(LC 8), 4=-38(LC 1)

Max Grav 3=6(LC 8), 2=254(LC 1), 4=23(LC 8)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) 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 1-6-10 oc purlins.

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





BRACING-

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

NOTES-

LUMBER-

WFBS

TOP CHORD

BOT CHORD

REACTIONS.

TOP CHORD

BOT CHORD

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

3-8=-169/1280, 5-8=-169/1280

(size) 6=Mechanical, 2=0-3-8

Max Uplift 6=-88(LC 13), 2=-108(LC 12) Max Grav 6=706(LC 1), 2=770(LC 1)

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

3-14=-370/85, 3-4=-1363/244, 4-5=-1371/259, 5-6=-342/80

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-5, Interior(1) 2-0-5 to 8-0-0, Exterior(2R) 8-0-0 to 12-2-15, Interior(1) 12-2-15 to 15-8-0 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
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

2x6 SPF No.2

2x4 SPF No.2

2x4 SPF No 2

Max Horz 2=66(LC 12)

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6 except (jt=lb) 2=108.
- 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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NITEK* 16023 Swingley Ridge Rd Chesterfield, MO 63017



Scale = 1:29.9



	2-3-8	5-10-8		10-1-8	1:	3-8-8	16-0-0	
	2-3-8	3-7-0	1	4-3-0	' 3	-7-0	2-3-8	I
Plate Offsets (X,	Y) [2:0-0-10,Edge], [3:0-1-0,0-2-0], [4:0-5-4,0)-2-8], [6:0-1-0,0-2-0], [7	7:0-0-10,Edge]				
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACIN Plate Gr Lumber Rep Stre Code IF	IG- 2-0-0 ip DOL 1.15 DOL 1.15 ess Incr YES 2C2018/TPI2014	CSI. TC 0.93 BC 0.91 WB 0.05 Matrix-AS	DEFL. in Vert(LL) -0.18 Vert(CT) -0.34 Horz(CT) 0.25	(loc) l/defl 6-10 >999 3-11 >565 7 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 61 lb	GRIP 197/144 FT = 20%
LUMBER-				BRACING-				
TOP CHORD	2x6 SPF No.2 *Except 4-5: 2x4 SPF No.2	*		TOP CHORD	Structural wood 2-0-0 oc purlins	sheathing directly a	applied, except	
BOT CHORD 2 WEBS 2	2x4 SPF No.2 2x4 SPF No.2			BOT CHORD	Rigid ceiling dire	ctly applied.		

REACTIONS. (size) 2=0-3-8, 7=0-3-8 Max Horz 2=-44(LC 17) Max Uplift 2=-110(LC 12), 7=-110(LC 13) Max Grav 2=788(LC 1), 7=788(LC 1)

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

TOP CHORD 3-14=-327/98, 3-4=-1595/337, 4-5=-1522/353, 5-6=-1595/337, 6-7=-327/101

BOT CHORD 3-11=-250/1517, 10-11=-247/1522, 6-10=-254/1517

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-10-8, Exterior(2E) 5-10-8 to 10-1-8, Exterior(2R) 10-1-8 to 14-2-2, Interior(1) 14-2-2 to 16-10-8 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) except (jt=lb) 2=110, 7=110.

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.







Scale = 1:29.9



<u>⊢ 1</u> ,	7-8 2-3-8 3-11-4	8-0-0	12-	0-12	13-8-8	14-4-8 16-0-0)
Plate Offsets (X,Y)	[3:0-8-0,0-1-13], [7:0-8-0,0-1-13]	4-0-12	47	0-12	1-7-12	0-0-0 1-7-0	
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCodeIRC2018/TPI2014	CSI. TC 0.81 BC 0.54 WB 0.21 Matrix-S	DEFL. in Vert(LL) -0.23 Vert(CT) -0.44 Horz(CT) 0.28	(loc) l/defl 11-12 >802 2 11-12 >428 1 8 n/a	L/d 240 80 n/a	PLATES MT20 Weight: 74 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x6 SP 4-6: 2x BOT CHORD 2x4 SP 3-7: 2x WEBS 2x4 SP WEDGE Left: 2x4 SP No.3 , Rig	2400F 2.0E *Except* 4 SPF No.2 F No.2 *Except* 6 SPF 2100F 1.8E F No.2 ht: 2x4 SP No.3		BRACING- TOP CHORD BOT CHORD	Structural wood she except 2-0-0 oc purlins (2- Rigid ceiling directly	eathing directl 10-9 max.): 4- / applied or 10	y applied or 4-9-10 6. 0-0-0 oc bracing.	oc purlins,
REACTIONS. (size Max H Max U Max G	 2=0-3-8, 8=0-3-8 2=-32(LC 34) plift 2=-237(LC 8), 8=-237(LC 9) rav 2=1079(LC 1), 8=1079(LC 1) 						
FORCES. (lb) - Max. TOP CHORD 2-3=- 7-8=- BOT CHORD 3-12= WEBS 4-12=	Comp./Max. Ten All forces 250 (lb) or 469/132, 3-4=-3335/723, 4-5=-3304/729 469/125 689/3291, 11-12=-915/3954, 7-11=-68 47/356, 5-12=-700/243, 5-11=-700/243	less except when shown. 9, 5-6=-3304/727, 6-7=-333 2/3291 8, 6-11=-44/356	35/724,				
 BOT CHORD 3-12=-689/3291, 11-12=-915/3954, 7-11=-682/3291 WEBS 4-12=-47/356, 5-12=-700/243, 5-11=-700/243, 6-11=-44/356 NOTES- Unbalanced roof live loads have been considered for this design. Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60 Provide adequate drainage to prevent water ponding. This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=237, 8=237. This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord. NAILED' indicates 3-10d (0.148"x3) or 3-12d (0.148"x3.25") toe-nails per NDS guidlines. Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 124 lb down and 96 lb up at 41-10 on top chord. The design/selection of such connection device(s) is the responsibility of others. In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B). 							
						I, ON	46 511

January 14,2022



LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	SUMMIT/COBEY CREEK #25/MO	
						I49701845
3043208	D3	HIP GIRDER	1	1		
					Job Reference (optional)	
Builders FirstSource (Valley Center), Valley Center, KS - 67147,		S - 67147,	8.430 s Aug 16 2021 MiTek Industries, Inc. Thu Jan 13 15:04:51 2022 Page 2			
		ID:9	fwzKJJ_y34/	D7?hPVfC	DzykJh0-9P13tTNEJ1KwOQaZhm??hO52tCT7kHm_cPHre	hzvkKA

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-4=-70, 4-6=-70, 6-9=-70, 2-13=-20, 3-7=-20, 8-10=-20

Concentrated Loads (lb)

Vert: 4=-58(F) 6=-58(F) 12=-127(F=-54) 5=-24(F) 11=-127(F=-54) 14=-24(F) 15=-24(F) 16=-54(F) 17=-54(F) 18=-54(F) 18=-56(F) 18=-56(F) 18=-56(F) 18=-56(F) 18=-56(F) 18=-56(F) 18=





						7-5-0						
LOADIN	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	0.09	Vert(LL)	-0.00	9	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	9	n/r	120		
BCLL	0.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code IRC2018/T	PI2014	Matri	x-R						Weight: 36 lb	FT = 20%
LUMBER	२ -					BRACING						

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

TOP CHORD

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

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

- REACTIONS. All bearings 7-5-0.
 - (lb) -Max Horz 16=-114(LC 10)
 - Max Uplift All uplift 100 lb or less at joint(s) 16, 10, 14, 15, 12, 11 Max Grav All reactions 250 lb or less at joint(s) 16, 10, 13, 14, 15, 12, 11

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-4-8, Exterior(2N) 2-4-8 to 3-8-8, Corner(3R) 3-8-8 to 6-8-8, Exterior(2N) 6-8-8 to 8-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10, 14, 15, 12, 11.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.









	H	<u>3-8-4</u> 3-8-4		7-0-8	
Plate Offsets (X,Y)	[2:0-2-4,0-0-2]				
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCodeIRC2018/TPI2014	CSI. TC 0.18 BC 0.14 WB 0.04 Matrix-AS	DEFL. ir Vert(LL) -0.01 Vert(CT) -0.01 Horz(CT) -0.01	n (loc) l/defl L/d 7-10 >999 240 7-10 >999 180 2 n/a n/a	PLATES GRIP MT20 197/144 Weight: 33 lb FT = 20%
LUMBER- TOP CHORD 2x4 S BOT CHORD 2x4 S WEBS 2x4 S SLIDER Left 2	PF No.2 PF No.2 PF No.2 x6 SPF No.2 2-6-0		BRACING- TOP CHORD BOT CHORD	Structural wood sheathin Rigid ceiling directly app	ng directly applied, except end verticals. lied.

REACTIONS. (size) 2=0-3-8, 6=Mechanical Max Horz 2=104(LC 11) Max Uplift 2=-47(LC 12), 6=-31(LC 12) Max Grav 2=375(LC 1), 6=306(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 4-5=-254/119. 5-6=-286/141

NOTES-

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

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-8-4, Exterior(2E) 3-8-4 to 6-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

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

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6.

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

referenced standard ANSI/TPI 1.

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







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) 4 except (jt=lb) 1=109.

- 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 HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 0-10-4 from the left end to connect truss(es) to back face of bottom chord.

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

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

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15 Uniform Loads (plf) Vert: 1-2=-70, 2-3=-70, 4-6=-20 Concentrated Loads (lb) Vert: 5=-9(F) 9=-968(B)







(size) 1=0-3-8, 4=Mechanical

Max Horz 1=35(LC 7)

Max Uplift 1=-155(LC 8), 4=-109(LC 5) Max Grav 1=1116(LC 1), 4=702(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) 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=155. 4=109.
- 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 HUS26 (14-10d Girder, 6-10d Truss, Single Ply Girder) or equivalent at 1-0-4 from the left end to connect
- truss(es) to front 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) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

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

Uniform Loads (plf) Vert: 1-2=-70, 2-3=-70, 4-6=-20 Concentrated Loads (lb) Vert: 3=-9(B) 5=-7(B) 9=-1548(F)







LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.17 BC 0.12 WB 0.02 Matrix-MS	DEFL. ir Vert(LL) -0.01 Vert(CT) -0.01 Horz(CT) -0.00	i (loc) l/defi L/d 5-6 >999 240 5-6 >999 180 5 n/a n/a	PLATES GRIP MT20 197/144 Weight: 15 lb FT = 20%
LUMBER- TOP CHORD 2x4 BOT CHORD 2x4 WEBS 2x4	SPF No.2 SPF No.2 SPF No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing d except end verticals, and 2- Rigid ceiling directly applied	irectly applied or 3-5-12 oc purlins,)-0 oc purlins: 3-4. or 10-0-0 oc bracing.

REACTIONS. (size) 6=0-3-8, 5=Mechanical

Max Horz 6=64(LC 7)

Max Uplift 6=-54(LC 8), 5=-50(LC 5) Max Grav 6=245(LC 1), 5=152(LC 22)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) 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) 6, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 37 lb down and 81 lb up at 1-4-6 on top chord, and 36 lb down and 22 lb up at 1-4-6 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) 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=-70, 3-4=-70, 5-6=-20 Concentrated Loads (lb)
 - Vert: 3=-4(F) 7=-26(F)







LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNOCode IRC2018/TPI2014	CSI. TC 0.08 BC 0.12 WB 0.02 Matrix-MP	DEFL. ii Vert(LL) -0.0' Vert(CT) -0.0' Horz(CT) -0.0'	n (loc) l/defl L/d l 5-6 >999 240 l 5-6 >999 180) 5 n/a n/a	PLATES GRIP MT20 197/144 Weight: 18 lb FT = 20%	
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF	2F No.2 2F No.2 2F No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing di except end verticals, and 2-0 Rigid ceiling directly applied	rectly applied or 3-5-12 oc purlins, -0 oc purlins: 3-4. or 10-0-0 oc bracing.	

REACTIONS. (size) 5=Mechanical, 6=0-5-8

Max Horz 6=85(LC 5)

Max Uplift 5=-73(LC 5), 6=-59(LC 8) Max Grav 5=136(LC 22), 6=228(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) 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) 5, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 117 lb down and 100 lb up at 1-10-9 on top chord, and 38 lb down and 12 lb up at 1-10-9 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 10) 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: 1-2=-70, 2-3=-70, 3-4=-70, 5-6=-20 Concentrated Loads (lb) Vert: 3=-1(B) 7=-2(B)







Max Horz 2=30(LC 12)

Max Uplift 2=-8(LC 12), 4=-20(LC 9)

Max Grav 2=95(LC 1), 4=63(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

- 4) 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.







Max Uplift 4=-70(LC 12), 5=-34(LC 12)

Max Grav 8=261(LC 1), 4=111(LC 19), 5=77(LC 19)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-0-10, Interior(1) 2-0-10 to 4-1-12 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) 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, 5.

- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.







NOTES-

- Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-1-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

3) 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, 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.







(size) 5=0-3-8, 3=Mechanical, 4=Mechanical

Max Horz 5=117(LC 12)

Max Uplift 3=-80(LC 12), 4=-8(LC 12) Max Grav 5=230(LC 1), 3=109(LC 19), 4=62(LC 3)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-5-0 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, 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.







BOT CHORD

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

 BOT CHORD
 2x4 SPF No.2

 WEBS
 2x4 SPF No.2

 REACTIONS.
 (size)

 5=Mechanical, 6=0-3-8, 4=Mechanical

 Max Horz
 6=100(LC 11)

Max Uplift 5=-40(LC 9), 6=-27(LC 12), 4=-10(LC 8) Max Grav 5=113(LC 19), 6=226(LC 1), 4=27(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 2-6=-173/256, 3-6=-252/107

NOTES-

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-12, Exterior(2E) 2-6-12 to 3-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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) 5, 6, 4. 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and

referenced standard ANSI/TPI 1.

- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.





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



LOADING	i (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	25.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	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/TP	12014	Matri	x-MP						Weight: 10 lb	FT = 20%

BRACING-TOP CHORD

BOT CHORD

LUMBER-

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

Max Horz 2=66(LC 12)

Max Uplift 3=-35(LC 12), 2=-26(LC 12), 4=-2(LC 12)

Max Grav 3=74(LC 1), 2=20(LC 12), 4=2(LC 3)Max Grav 3=74(LC 1), 2=200(LC 1), 4=59(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-10-8 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
- 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 2-11-4 oc purlins.

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



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



	LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.08 BC 0.07 WB 0.00 Matrix-MR	DEFL. ir Vert(LL) -0.00 Vert(CT) -0.00 Horz(CT) -0.00	(loc) 4-5 4-5 3	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 8 lb	GRIP 197/144 FT = 20%
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LUMBER-

TOP CHORD2x4 SPF No.2BOT CHORD2x4 SPF No.2WEBS2x4 SPF No.2

BRACING-

 TOP CHORD
 Structural wood sheathing directly applied or 2-7-3 oc purlins, except end verticals.

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

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

Max Horz 5=73(LC 12) Max Uplift 5=-10(LC 12), 3=-47(LC 12), 4=-2(LC 12)

Max Grav 5=194(LC 1), 3=73(LC 19), 4=44(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-6-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







LOADING TCLL TCDL BCU	(psf) 25.0 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.15 1.15 YES	CSI. TC BC WB	0.12 0.19 0.00	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.01 -0.02 0.01	(loc) 6 5	l/defl >999 >999	L/d 240 180 n/a	PLATES MT20	GRIP 197/144
BCLL BCDL	0.0 10.0	Rep Stress Incr Code IRC2018/TF	PI2014	WB Matri	0.00 x-MR	Horz(CT)	0.01	5	n/a	n/a	Weight: 12 lb	FT = 20%

LUMBER-

REACTIONS.

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

Max Horz 2=71(LC 12)

Max Uplift 4=-34(LC 12), 2=-35(LC 12), 5=-12(LC 12)

Max Grav 4=94(LC 1), 2=243(LC 1), 5=74(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-1, Interior(1) 2-1-1 to 3-10-8 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
- 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.



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 3-11-4 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

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



LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.05 BC 0.01 WB 0.00 Matrix-MP	DEFL. in (loc) l/defl L/d Vert(LL) -0.00 7 >999 240 Vert(CT) -0.00 7 >999 180 Horz(CT) 0.00 3 n/a n/a	PLATES GRIP MT20 197/144 Weight: 6 lb FT = 20%
LUMBER-			BRACING-	

TOP CHORD

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=43(LC 12)

Max Uplift 3=-18(LC 12), 2=-23(LC 12), 4=-1(LC 12)

Max Grav 3=36(LC 1), 2=149(LC 1), 4=30(LC 3)

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

NOTES-

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

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

- 4) 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 1-7-2 oc purlins.

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







			200						
	(psf)	SPACING- 2-0-0	CSI. DEFL. in (loc) I/defl L/d	PLATES GRIP					
TCLL	25.0 10.0	Lumber DOL 1.15	BC 0.04 Vert(CT) -0.00 7 >999 240	M120 197/144					
BCLL	0.0	Rep Stress Incr YES	WB 0.00 Horz(CT) 0.00 3 n/a n/a						
BCDL	10.0	Code IRC2018/TPI2014	Matrix-MP	Weight: 7 lb $FT = 20\%$					

LUMBER-

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

BUTCHORD 2x4 SPF NO.2

BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 2-3-8 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 3=Mechanical, 2=0-3-8, 4=Mechanical Max Horz 2=41(LC 8)

Max Uplift 3=-23(LC 12), 2=-50(LC 8) Max Grav 3=61(LC 1), 2=174(LC 1), 4=39(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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







BRACING-TOP CHORD

BOT CHORD

LUMBER-	
	04

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

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

Max Horz 2=30(LC 8) Max Uplift 3=-10(LC 12), 2=-49(LC 8)

Max Grav 3=26(LC 1), 2=140(LC 3)Max Grav 3=26(LC 1), 2=140(LC 1), 4=20(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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



Structural wood sheathing directly applied or 1-3-8 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 2x4 SPF No 2

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

Max Horz 2=39(LC 12)

Max Uplift 3=-22(LC 12), 2=-27(LC 8)

Max Grav 3=49(LC 1), 2=158(LC 1), 4=32(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

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

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



Structural wood sheathing directly applied or 1-10-3 oc purlins.

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







I			<u> </u>					
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (lo	c) l/defl	L/d	PLATES	GRIP
TCDL 25.0 TCDL 10.0 BCLL 0.0	Lumber DOL 1.15 Rep Stress Incr YES	BC 0.06 WB 0.04	Vert(LL) Vert(CT) Horz(CT) -	0.00	1 n/r 1 n/r 16 n/a	120 120 n/a	MT20	197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S	11012(01)	0.00		n/a	Weight: 98 lb	FT = 20%
LUMBER-			BRACING-					

TOP CHORD

BOT CHORD

LUMBER-

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

Left: 2x4 SPF No.2

- REACTIONS. All bearings 17-10-0.
 - (lb) Max Horz 2=175(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 16, 2, 23, 24, 25, 26, 27, 29, 22, 21, 20, 19, 18, 17 Max Grav All reactions 250 lb or less at joint(s) 16, 2, 23, 24, 25, 26, 27, 29, 22, 21, 20, 19, 18, 17

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

TOP CHORD 2-3=-272/149

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-2-4, Exterior(2N) 2-2-4 to 9-0-0, Corner(3R) 9-0-0 to 12-0-0, Exterior(2N) 12-0-0 to 17-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 1-4-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 2, 23, 24, 25, 26, 27, 29, 22, 21, 20, 19, 18, 17.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 8-15.

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





12

3

10

3x6 ||

11

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3x4 =

0-11-4

LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.21 BC 0.18 WB 0.05 Matrix-R	DEFL. Vert(LL) 0. Vert(CT) 0. Horz(CT) 0.	in (loc) 00 2 00 2 00 7	l/defl n/r n/r n/a	L/d 120 120 n/a	PLATES MT20 Weight: 28 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 S	SPF No.2	1	BRACING- TOP CHORD	Struc	ural wood	sheathing di	rectly applied or 5-0-0	oc purlins,

9

8

7

TOP CHORD	2x4 SI
BOT CHORD	2x4 SF

2x4 SPF No.2
2x4 SPF No.2
2x4 SPF No.2

BOT CHORD

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

REACTIONS. All bearings 5-0-0.

(lb) -Max Horz 11=178(LC 9)

Max Uplift All uplift 100 lb or less at joint(s) 11, 7, 8, 9 except 10=-156(LC 12) Max Grav All reactions 250 lb or less at joint(s) 11, 7, 8, 9, 10

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

TOP CHORD 2-11=-358/184, 2-3=-520/316, 3-4=-333/219

WFBS 3-10=-179/282

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3E) -0-10-8 to 2-4-0, Exterior(2N) 2-4-0 to 4-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 6) Gable studs spaced at 1-4-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 7, 8, 9 except (jt=lb) 10=156.
- 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.







LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.15 BC 0.06 WB 0.19 Matrix-S	DEFL. i Vert(LL) n/ Vert(CT) n/ Horz(CT) -0.00	n (loc) l/defl L/d a - n/a 999 a - n/a 999 0 16 n/a n/a	PLATES MT20 Weight: 119 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 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 except end verticals, and 2-0 Rigid ceiling directly applied o	ectly applied or 6-0-0 -0 oc purlins (6-0-0 ma or 10-0-0 oc bracing.	oc purlins, ax.): 10-15.
REACTIONS All be	parings 24-0-3					

(lb) - Max Horz 1=246(LC 11)

Max Holz 1=240(LC 11) Max Uplift All uplift 100 lb or less at joint(s) 1, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27 except 24=-108(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 1, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27

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

TOP CHORD 1-2=-259/210

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-1 to 3-5-1, Interior(1) 3-5-1 to 10-10-10, Exterior(2R) 10-10-10 to 14-0-3, Interior(1) 14-0-3 to 23-10-7 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 16, 17, 18, 19, 20, 21, 22, 23, 25, 26, 27 except (jt=lb) 24=108.
- 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.







- 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, 6, 8, 9 except (it=lb) 7=108.
- 8) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 8, 9.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.







LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.05 BC 0.03 WB 0.15 Matrix-S	DEFL. in (loc) l/defl L Vert(LL) n/a - n/a 9 Vert(CT) n/a - n/a 9 Horz(CT) 0.00 10 n/a r	/d PLATES GRIP 99 MT20 197/144 99 1/a Weight: 83 lb FT = 20%
LUMBER- TOP CHORD 2x4 S BOT CHORD 2x4 S	PF No.2 PF No.2		BRACING- TOP CHORD Structural wood she BOT CHORD Rigid ceiling directly	athing directly applied or 6-0-0 oc purlins. applied or 10-0-0 oc bracing.

REACTIONS. All bearings 17-11-12.

2x4 SPF No 2

(lb) - Max Horz 1=183(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 15, 16, 17, 19 except 13=-114(LC 13), 11=-104(LC 13), 11=-104(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 10, 14, 15, 16, 17, 19, 13, 12, 11

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

NOTES-

OTHERS

2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-1 to 3-5-1, Interior(1) 3-5-1 to 10-3-5, Exterior(2R) 10-3-5 to 13-3-5, Interior(1) 13-3-5 to 17-7-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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, 10, 15, 16, 17, 19 except (jt=lb) 13=114, 12=115, 11=104.

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.



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16023 Swingley Ridge Rd Chesterfield, MO 63017

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









7-10-4 7-10-4

DADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
CLL 25.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) n/a - n/a 999	MT20 197/144
CDL 10.0	Lumber DOL 1.15	BC 0.02	Vert(CT) n/a - n/a 999	
CLL 0.0	Rep Stress Incr YES	WB 0.03	Horz(CT) 0.00 5 n/a n/a	
CDL 10.0	Code IRC2018/TPI2014	Matrix-P		Weight: 29 lb FT = 20%

2

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

REACTIONS. All bearings 7-10-4.

(lb) -Max Horz 1=93(LC 9)

2x4 SPF No 2

2x4 SPF No 2

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-134(LC 12), 6=-134(LC 13) Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7, 8, 6

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

NOTES-

BOT CHORD

OTHERS

 Unbalanced roof live loads have been considered for this design.
 Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-0 to 3-4-0, Interior(1) 3-4-0 to 3-11-2, Exterior(2R) 3-11-2 to 6-11-2, Interior(1) 6-11-2 to 7-6-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

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

- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=134.6=134.
- 6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



Scale = 1:29.1





REACTIONS. (size) 1=4-2-10, 3=4-2-10, 4=4-2-10

Max Horz 1=37(LC 9)

Max Uplift 1=-19(LC 12), 3=-19(LC 13) Max Grav 1=96(LC 1), 3=88(LC 1), 4=127(LC 1)

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

NOTES-

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

- 2) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.6) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.



Plate Offsets (X,Y)	[3:0-0-0,0-0-0]				
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrNO	CSI. TC 0.27 BC 0.21 WB 0.02	DEFL. i Vert(LL) -0.02 Vert(CT) -0.03 Horz(CT) 0.00	n (loc) l/defl L/d 2 5-8 >999 240 5 5-8 >999 180 0 2 n/a n/a	PLATES GRIP MT20 197/144
BCDL 10.0	Code IRC2018/TPI2014	Matrix-MP			Weight: 16 lb $FT = 20\%$
LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPE No.2			BRACING- TOP CHORD	Structural wood sheathing dir except end verticals, and 2-0-	ectly applied or 4-11-8 oc purlins, 0 oc purlins: 3-4.
WEBS 2x4 SF	PF No.2		BOT CHORD	Rigid ceiling directly applied of	or 10-0-0 oc bracing.

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

Max Horz 2=56(LC 7)

Max Uplift 2=-74(LC 4), 5=-66(LC 4) Max Grav 2=291(LC 1), 5=293(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) 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) 2, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 10) 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=-70, 3-4=-70, 5-6=-20 Concentrated Loads (lb) Vert: 9=-30(F) 10=-59(F) XUEGANG LIU NUMBER E-29713 January 14,2022

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				4-11-6	·
LOADING	(psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	25.0	Plate Grip DOL 1.15	TC 0.30	Vert(LL) -0.03 4-7 >999 240	MT20 197/144
TCDL	10.0	Lumber DOL 1.15	BC 0.22	Vert(CT) -0.06 4-7 >999 180	
BCU	0.0	Rep Stress Incr YES	WB 0.00	Horz(CT) 0.01 2 p/a p/a	
BCDL	10.0	Code IRC2018/TPI2014	Matrix-AS		Weight: 14 lb FT = 20%

BRACING-TOP CHORD

BOT CHORD

LUMBER-

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

2x4 SPF No.2

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

Max Horz 2=73(LC 11) Max Uplift 4=-43(LC 12), 2=-69(LC 8)

Max Grav 4=211(LC 1), 2=283(LC 1)

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

NOTES-

- 1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-9-12 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) 4, 2.

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

- referenced standard ANSI/TPI 1.
- 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.

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LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.46 BC 0.33 WB 0.00 Matrix-AS	DEFL. in Vert(LL) 0.06 Vert(CT) -0.12 Horz(CT) 0.01	(loc) 4-7 4-7 2	l/defl >999 >595 n/a	L/d 240 180 n/a	PLATES GRIP MT20 197/144 Weight: 17 lb FT = 20%
LUMBER- TOP CHORD 2x4 \$	PF No.2	BRACING- TOP CHORD	Structu	iral wood	sheathing di	rectly applied, except end verticals.	

BOT CHORD

Rigid ceiling directly applied.

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

REACTIONS. (size) 4=Mechanical, 2=0-3-8 Max Horz 2=87(LC 11)

Max Uplift 4=-53(LC 12), 2=-76(LC 8) Max Grav 4=257(LC 1), 2=327(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-9-12 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) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 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.



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Plate Offsets (X,Y)	[3:0-0-0,0-0-0]				
LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.22 BC 0.18 WB 0.02 Matrix-AS	DEFL. ir Vert(LL) -0.02 Vert(CT) -0.04 Horz(CT) 0.00	(loc) l/defl L/d 5-8 >999 240 5-8 >999 180 2 n/a n/a	PLATES GRIP MT20 197/144 Weight: 16 lb FT = 20%
LUMBER- TOP CHORD 2x4 SP BOT CHORD 2x4 SP WEBS 2x4 SP OTHERS 2x4 SP	F No.2 F No.2 F No.2 F No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing dir 2-0-0 oc purlins: 3-4. Rigid ceiling directly applied.	rectly applied, except

REACTIONS. (size) 2=0-3-8, 5=Mechanical Max Horz 2=56(LC 11) Max Uplift 2=-71(LC 8), 5=-39(LC 8)

Max Grav 2=283(LC 1), 5=211(LC 1)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 3-11-13, Exterior(2E) 3-11-13 to 4-9-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 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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¹⁾ Unbalanced roof live loads have been considered for this design.



Scale = 1:11.4



		1-4-14	3-2-0		<u>4-11-8</u> <u>5-0-0</u>
Plate Offsets (X,Y)	[3:0-7-0,0-1-12]	1-4-14	1-9-2		1-9-8
LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.1 BC 0.1 WB 0.0 Matrix-MI	DEFL. ii 21 Vert(LL) -0.0 29 Vert(CT) -0.0 02 Horz(CT) 0.0 P	n (loc) l/defl L/d 5 7-8 >999 240 5 7-8 >914 180 2 n/a n/a	PLATES GRIP MT20 197/144 Weight: 13 lb FT = 20%
LUMBER- TOP CHORD 2x4 SF BOT CHORD 2x4 SF WEBS 2x4 SF	PF No.2 PF No.2 PF No.2 PF No.2		BRACING- TOP CHORD BOT CHORD	Structural wood sheathing 2-0-0 oc purlins: 3-5. Rigid ceiling directly applied	directly applied or 5-0-0 oc purlins, except

REACTIONS. (size) 2=0-3-8, 6=Mechanical

Max Horz 2=27(LC 4)

Max Uplift 2=-60(LC 4), 6=-34(LC 5)

Max Grav 2=226(LC 1), 6=189(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) 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) 2, 6.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and
- referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 9) "NAILED" indicates 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 10) 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=-70, 3-5=-70, 6-9=-20

Concentrated Loads (lb) Vert: 3=40(B) 8=39(B)

., .,





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			2-8-0			0-2-8	3	
LOADING (psf) TCLL 25.0 TCDL 10.0 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 0.10 BC 0.07 WB 0.00 Matrix-MP	DEFL. Vert(LL) - Vert(CT) - Horz(CT)	in (loc) -0.00 5-8 -0.01 5-8 0.00 2	l/defl L >999 24 >999 14 n/a r	/d 40 30 /a	PLATES MT20 Weight: 8 lb	GRIP 197/144 FT = 20%

LUMBER-

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

REACTIONS. (size) 4=Mech

TIONS. (size) 4=Mechanical, 2=0-3-8 Max Horz 2=49(LC 8)

Max Uplift 4=-30(LC 12), 2=-53(LC 8)

Max Grav 4=112(LC 1), 2=197(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 2-9-12 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) 4, 2.
- 5) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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BRACING-TOP CHORD BOT CHORD

Structural wood sheathing directly applied or 2-10-8 oc purlins. Rigid ceiling directly applied or 6-0-0 oc bracing.









LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. ii	n (loc) l/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.38	Vert(LL) n/a	a - n/a 999	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT) n/a	a - n/a 999	
BCLL 0.0	Rep Stress Incr YES	WB 0.10	Horz(CT) -0.00) 4 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-S			Weight: 35 lb FT = 20%
TOP CHORD2x4 SiBOT CHORD2x4 SiWEBS2x4 SiOTHERS2x4 Si	PF No.2 PF No.2 PF No.2 PF No.2		TOP CHORD BOT CHORD	Structural wood sheathing dir except end verticals. Rigid ceiling directly applied o	rectly applied or 6-0-0 oc purlins, or 10-0-0 oc bracing.
REACTIONS. (siz Max H Max U	e) 1=9-10-2, 4=9-10-2, 5=9-10-2 Horz 1=221(LC 9) Jplift 4=-43(LC 9), 5=-157(LC 12)				

Max Grav 1=215(LC 20), 4=124(LC 19), 5=538(LC 19)

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

0-2-8

TOP CHORD 1-2=-314/230

WEBS 2-5=-411/254

NOTES-

1) Wind: ASCE 7-16; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=4.2psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 9-8-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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=157.

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.



Scale = 1:41.0

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			7-4-8	1
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 25.0	Plate Grip DOL 1.15	TC 0.37	Vert(LL) n/a - n/a 999	MT20 197/144
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) n/a - n/a 999	
BCLL 0.0	Rep Stress Incr YES	WB 0.04	Horz(CT) 0.00 4 n/a n/a	
BCDL 10.0	Code IRC2018/TPI2014	Matrix-P		Weight: 23 lb $FT = 20\%$
LUMBER-			BRACING-	

 TOP CHORD
 2x4 SPF No.2
 TOP CHORD
 Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins; 2-3.

 WEBS
 2x4 SPF No.2
 BOT CHORD
 BOT CHORD
 Rigid ceiling directly applied or 6-0-0 oc bracing.

 OTHERS
 2x4 SPF No.2
 BOT CHORD
 Rigid ceiling directly applied or 6-0-0 oc bracing.

 REACTIONS.
 (size)
 1=7-4-2, 4=7-4-2, 5=7-4-2
 Structural wood sheathing directly applied or 6-0-0 oc bracing.

Max Horz 1=100(LC 9)

Max Uplift 1=-20(LC 12), 4=-25(LC 8), 5=-46(LC 12) Max Grav 1=180(LC 1), 4=94(LC 1), 5=334(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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 4-10-8, Exterior(2E) 4-10-8 to 7-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 4, 5.
- 7) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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Scale = 1:26.2



LOADING (psf) TCLL 25.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING-2-0-0Plate Grip DOL1.15Lumber DOL1.15Rep Stress IncrYESCode IRC2018/TPI2014	CSI. TC 0.64 BC 0.34 WB 0.00 Matrix-P	DEFL. ir Vert(LL) n/z Vert(CT) n/z Horz(CT) 0.00	n (loc) l/defl L/d a - n/a 999 a - n/a 999 3 n/a n/a	PLATES GRIP MT20 197/144 Weight: 19 lb FT = 20%
LUMBER- TOP CHORD 2x4 SPF No.2 BOT CHORD 2x4 SPF No.2 WEBS 2x4 SPF No.2			BRACING- TOP CHORD BOT CHORD	Structural wood sheathing di except end verticals. Rigid ceiling directly applied	rectly applied or 6-0-0 oc purlins, or 10-0-0 oc bracing.
REACTIONS. (siz	e) 1=6-2-14, 3=6-2-14				

Max Horz 1=135(LC 9) Max Uplift 1=-17(LC 12), 3=-75(LC 12)

Max Grav 1=254(LC 1), 3=267(LC 19)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 6-1-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2) Gable requires continuous bottom chord bearing.

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



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LOADING TCLL TCDL BCLL BCDL	(psf) 25.0 10.0 0.0 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code IRC2018/TP	2-0-0 1.15 1.15 YES I2014	CSI. TC BC WB Matrix	0.18 0.10 0.00 ĸ-P	DEFL. Vert(LL) Vert(CT) Horz(CT)	in n/a n/a 0.00	(loc) - - 3	l/defl n/a n/a n/a	L/d 999 999 n/a	PLATES MT20 Weight: 11 lb	GRIP 197/144 FT = 20%
LUMBER- TOP CHOR BOT CHOR WEBS	D 2x4 SPF D 2x4 SPF 2x4 SPF	No.2 No.2 No.2				BRACING- TOP CHOR BOT CHOR	D	Structur except Rigid ce	ral wood end vertic eiling dire	sheathing dir cals. ctly applied o	rectly applied or 3-9-4 or 10-0-0 oc bracing.	oc purlins,

3

2x4 ||

REACTIONS. (size) 1=3-8-14, 3=3-8-14

Max Horz 1=75(LC 11) Max Uplift 1=-12(LC 12), 3=-39(LC 12)

Max Grav 1=142(LC 1), 3=149(LC 19)

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=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

2x4 💋

- 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.

0-0-4

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



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