



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

RE: 2871649 - MIKE TODD CONST. - SANDIA

**MiTek USA, Inc.**

6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: Mike Todd Const. Project Name: Custom Model: Custom  
Lot/Block: N/A Subdivision: N/A  
Address: TBD Sandia Way, N/A  
City: Columbia City State: FL

**Name Address and License # of Structural Engineer of Record, If there is one, for the building.**

Name: License #:  
Address:  
City: State:

**General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):**

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.4  
Wind Code: ASCE 7-16 Wind Speed: 130 mph  
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 33 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T24688876	CJ01	7/15/21	23	T24688898	T18	7/15/21
2	T24688877	CJ03	7/15/21	24	T24688899	T19	7/15/21
3	T24688878	CJ05	7/15/21	25	T24688900	T20	7/15/21
4	T24688879	EJ01	7/15/21	26	T24688901	T21	7/15/21
5	T24688880	HJ10	7/15/21	27	T24688902	T21G	7/15/21
6	T24688881	T01	7/15/21	28	T24688903	T22	7/15/21
7	T24688882	T02	7/15/21	29	T24688904	T23	7/15/21
8	T24688883	T03	7/15/21	30	T24688905	T24	7/15/21
9	T24688884	T04	7/15/21	31	T24688906	T24G	7/15/21
10	T24688885	T05	7/15/21	32	T24688907	T25	7/15/21
11	T24688886	T06	7/15/21	33	T24688908	T26	7/15/21
12	T24688887	T07	7/15/21				
13	T24688888	T08	7/15/21				
14	T24688889	T09	7/15/21				
15	T24688890	T10	7/15/21				
16	T24688891	T11	7/15/21				
17	T24688892	T12	7/15/21				
18	T24688893	T13	7/15/21				
19	T24688894	T14	7/15/21				
20	T24688895	T15	7/15/21				
21	T24688896	T16	7/15/21				
22	T24688897	T17	7/15/21				



The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Lake City, FL.

Truss Design Engineer's Name: O'Regan, Philip

My license renewal date for the state of Florida is February 28, 2023.

**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.



Philip J. O'Regan PE No. 58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15, 2021

O'Regan, Philip

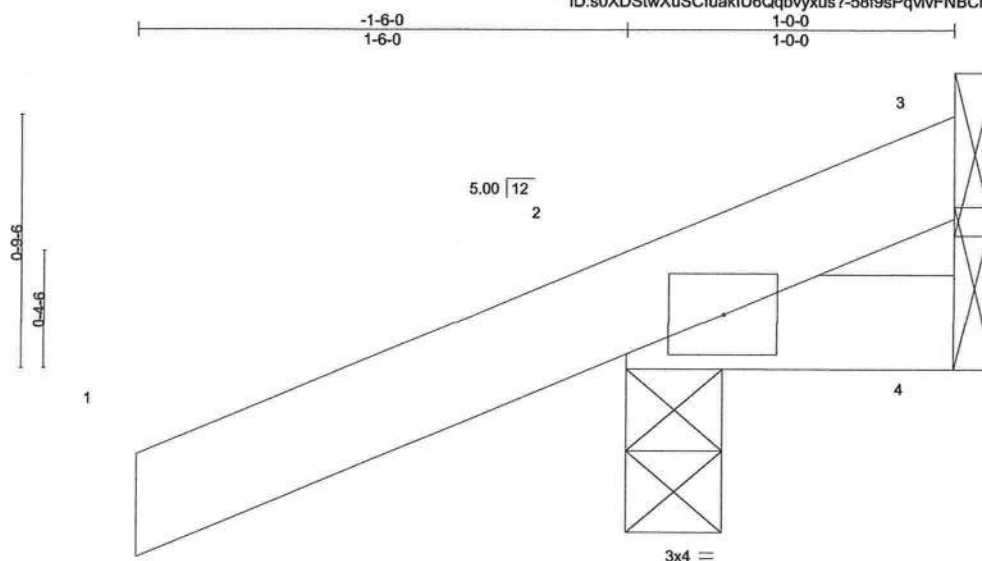
1 of 1

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA
2871649	CJ01	Jack-Open	10	1	T24688876

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:43 2021 Page 1

ID:s0XDStwXuSCLuakiU6Qqbvyxus7-58f9sPqvlvFNBCmaXDRmZlcM6mwdQis2SYfrTyxuMc



Scale = 1:7.1

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.13	Vert(LL)	0.00	5	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.02	Vert(CT)	0.00	5	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						Weight: 6 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=33(LC 8)  
Max Uplift 3=-6(LC 1), 2=-82(LC 8), 4=-19(LC 1)  
Max Grav 3=10(LC 8), 2=179(LC 1), 4=19(LC 8)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) 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) 3, 2, 4.



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Date:

July 15,2021

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

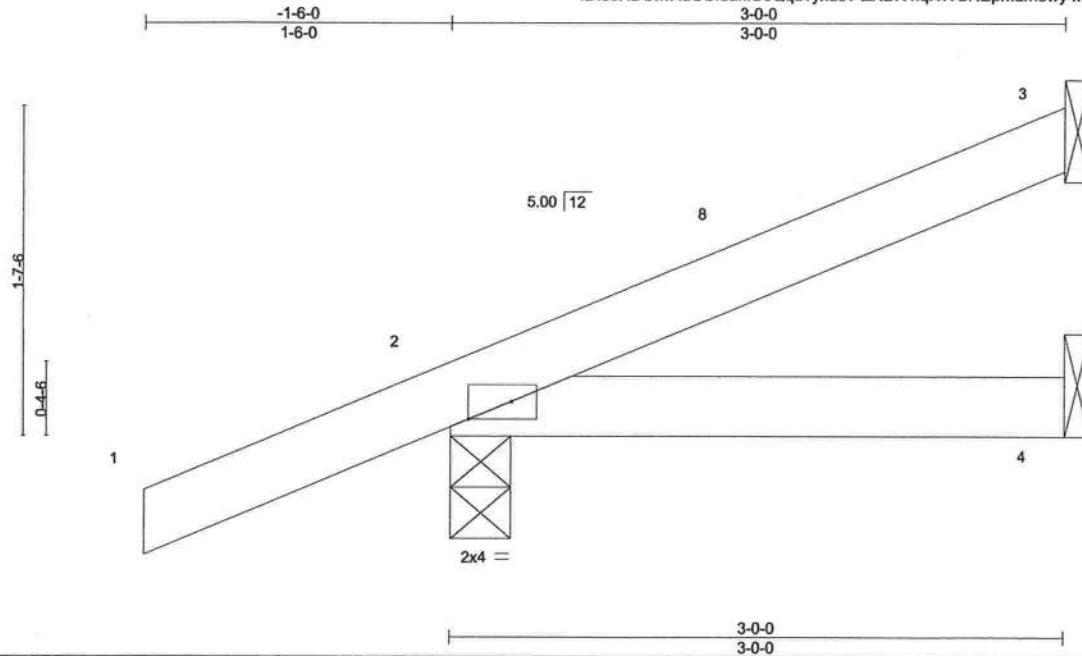
**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss CJ03	Truss Type Jack-Open	Qty 10	Ply 1	MIKE TODD CONST. - SANDIA	T24688877
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:44 2021 Page 1  
ID:s0XDStwXuScluakIU6Qqbvyxus?-ZKDX4lqXWCNEpMLm5wy4Knqn6W5UMty0H6HCOvyxuMb



Scale = 1:11.3

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	in (loc)	l/defl	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.07	Vert(LL)	-0.00 4-7 >999				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Vert(CT)	-0.01 4-7 >999				
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MP		Horz(CT)	0.00 3 n/a n/a				
								Weight: 12 lb FT = 20%			

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=61(LC 12)  
Max Uplift 3=-32(LC 12), 2=-63(LC 8)  
Max Grav 3=59(LC 1), 2=210(LC 1), 4=49(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) 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) 3, 2.



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Date:

July 15,2021

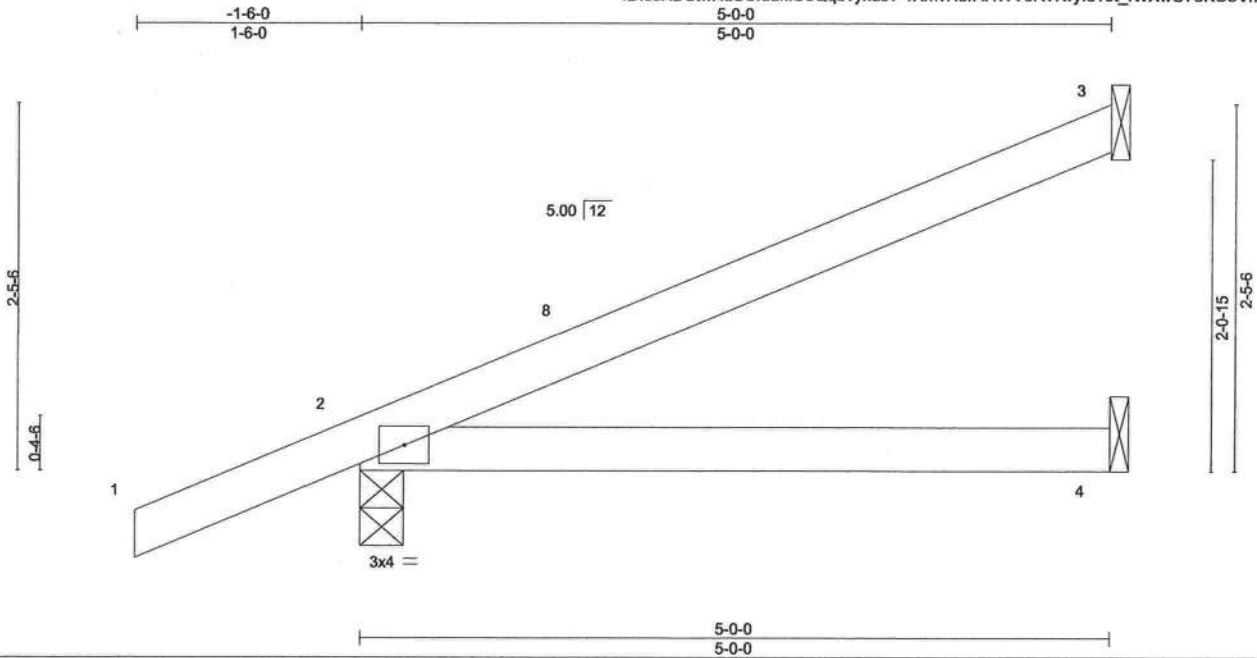
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**MiTek**  
6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688878
2871649	CJ05	Jack-Open	10	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:45 2021 Page 1  
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LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0		TC 0.28	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL 7.0		1.25	BC 0.23	Vert(CT)	-0.05	4-7	>999	180		
BCLL 0.0 *		1.25	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0		YES	Matrix-MP							
	Code	FBC2020/TPI2014							Weight: 18 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=89(LC 12)  
Max Uplift 3=-61(LC 12), 2=-71(LC 12)  
Max Grav 3=112(LC 1), 2=276(LC 1), 4=87(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) 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) 3, 2.



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**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss EJ01	Truss Type Jack-Partial	Qty 20	Ply 1	MIKE TODD CONST. - SANDIA	T24688879
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:46 2021 Page 1

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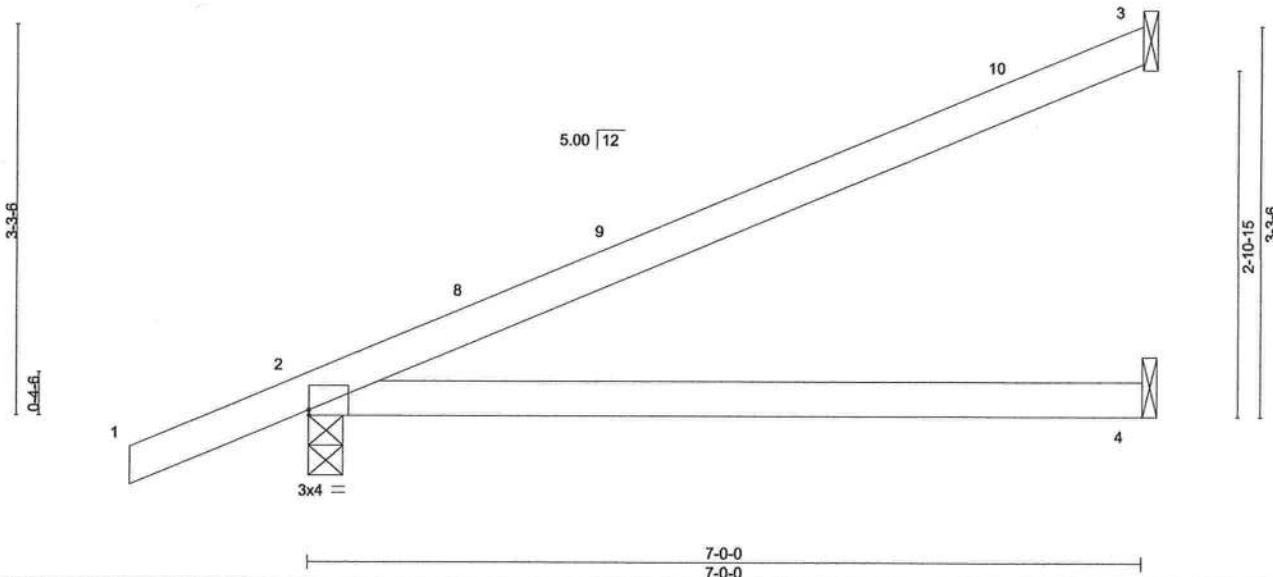


Plate Offsets (X,Y)-- [2:Edge,0-0-9]									
<b>LOADING</b> (psf)		<b>SPACING-</b>	2-0-0	<b>CSI.</b>		<b>DEFL.</b>	in (loc)	I/defl	L/d
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	0.10 4-7	>838	240
TCDL	7.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.21 4-7	>392	180
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01 2	n/a	n/a
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS					
								<b>PLATES</b>	<b>GRIP</b>
								MT20	244/190
								Weight: 24 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2

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

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=114(LC 12)  
Max Uplift 3=78(LC 12), 2=85(LC 12)  
Max Grav 3=163(LC 1), 2=346(LC 1), 4=125(LC 3)

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

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-11-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) 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) 3, 2.



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Date:

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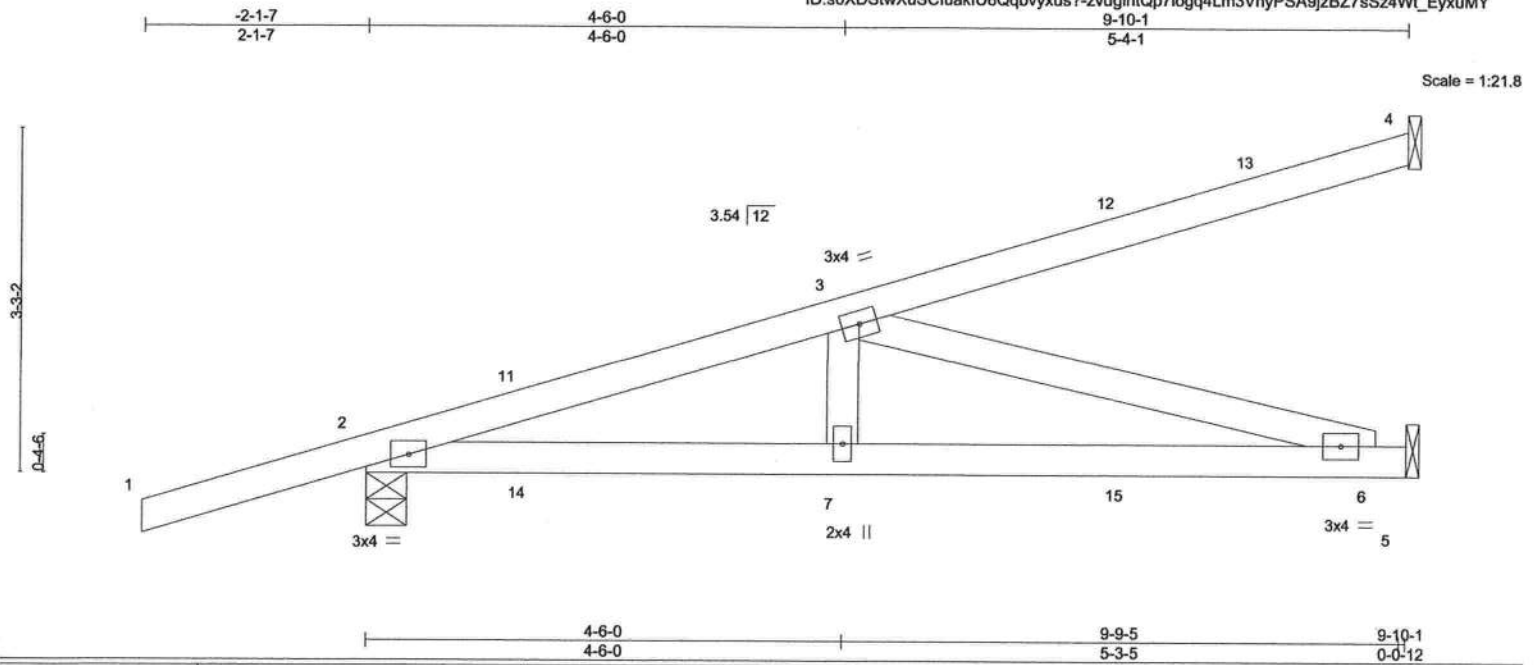
**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688880
2871649	HJ10	Diagonal Hip Girder	5	1		

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:47 2021 Page 1  
ID:s0XDStwXuScIuakiU6Qbvyxus?-zvugintQp7logq4Lm3VnyPSA9jzBZ7sSz4Wl\_EyxuMY



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.64	Vert(LL) -0.06 6-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.50	Vert(CT) -0.12 6-7 >941 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.01 5 n/a n/a		
	Code FBC2020/TPI2014			Weight: 42 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-11-9 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 4=Mechanical, 2=0-4-9, 5=Mechanical  
Max Horz 2=124(LC 4)  
Max Uplift 4=-72(LC 4), 2=-139(LC 4), 5=-41(LC 8)  
Max Grav 4=151(LC 1), 2=528(LC 1), 5=298(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-921/173  
BOT CHORD 2-7=-213/864, 6-7=-213/864  
WEBS 3-7=0/277, 3-6=-896/221

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) 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, 5 except (jt=lb) 2=139.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 63 lb down and 63 lb up at 1-6-1, 63 lb down and 63 lb up at 1-6-1, 21 lb down and 34 lb up at 4-4-0, 21 lb down and 34 lb up at 4-4-0, and 42 lb down and 72 lb up at 7-1-15, and 42 lb down and 72 lb up at 7-1-15 on top chord, and 24 lb down and 37 lb up at 1-6-1, 24 lb down and 37 lb up at 1-6-1, 20 lb down at 4-4-0, 20 lb down at 4-4-0, and 37 lb down at 7-1-15, and 37 lb down at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 5-8=-20  
Concentrated Loads (lb)  
Vert: 7=-8(F=-4, B=-4) 12=-72(F=-36, B=-36) 15=-60(F=-30, B=-30)



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Tampa, FL 33610

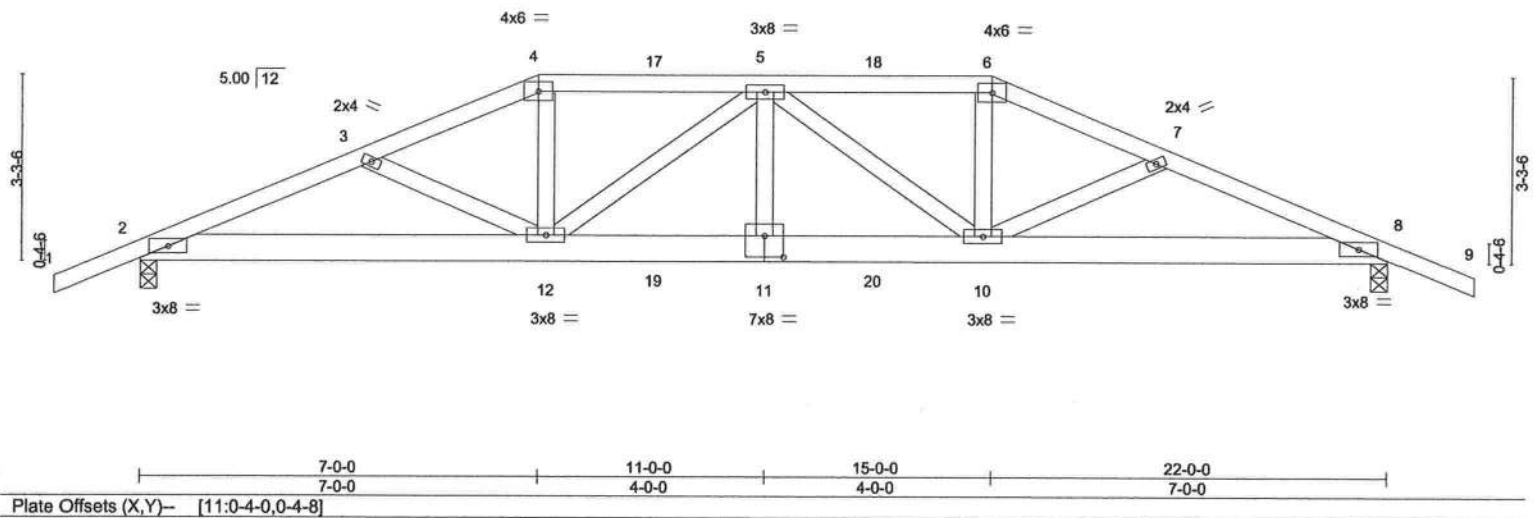
Job 2871649	Truss T01	Truss Type Hip Girder	Qty 1	Ply 1	MIKE TODD CONST. - SANDIA	T24688881
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:48 2021 Page 1  
ID:s0XDSwXuSCLuakIU6Qqbvyxus?-R5S2w7I2aRtl\_fXKm00Ud?ND7IblclBkFQXgyxuMX



Scale = 1:40.7



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.50	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.76	Vert(LL) -0.15 11 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.36	Vert(CT) -0.29 11 >901 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.08 8 n/a n/a		
	Code FBC2020/TP12014			Weight: 125 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD
BOT CHORD 2x6 SP No.2	BOT CHORD
WEBS 2x4 SP No.3	Structural wood sheathing directly applied or 2-10-15 oc purlins.
	Rigid ceiling directly applied or 8-6-2 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
 Max Horz 2=53(LC 32)  
 Max Uplift 2=382(LC 8), 8=388(LC 9)  
 Max Grav 2=1624(LC 1), 8=1651(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=3553/812, 3-4=3368/748, 4-5=3134/716, 5-6=3196/728, 6-7=3437/764, 7-8=3622/828  
 BOT CHORD 2-12=744/3257, 11-12=757/3610, 10-11=757/3610, 8-10=705/3321  
 WEBS 4-12=129/950, 5-12=662/198, 5-11=0/272, 5-10=571/150, 6-10=99/902

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=382, 8=388.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 82 lb up at 7-0-0, 109 lb down and 82 lb up at 9-0-12, 109 lb down and 75 lb up at 11-0-0, and 109 lb down and 82 lb up at 12-11-4, and 231 lb down and 161 lb up at 15-0-0 on top chord, and 335 lb down and 67 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-0, and 85 lb down at 12-11-4, and 335 lb down and 67 lb up at 14-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-4=-54, 4-6=-54, 6-9=-54, 2-8=-20



Phillip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date: July 15,2021

Continued on page 2

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

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Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688881
2871649	T01	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:48 2021 Page 2  
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# **LOAD CASE(S)** Standard

## Concentrated Loads (lb)

Vert: 4=-109(B) 6=-184(B) 12=-335(B) 11=-65(B) 5=-109(B) 10=-335(B) 17=-109(B) 18=-109(B) 19=-65(B) 20=-65(B)

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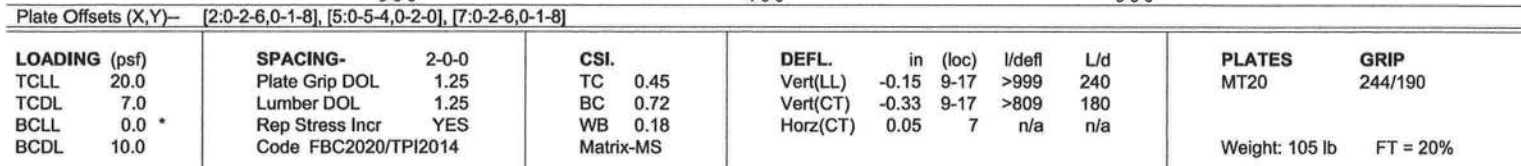
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601 **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component**



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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:49 2021 Page 1  
 ID:s0XDSwXuScLuakU6qQbvyxus?~w0Q7TugLi?Wv7EkuUYF1qXzrXeR16NIQO7z36yxuMW  

 Scale = 1:40.



<b>BRACING-</b>	
TOP CHORD	Structural wood sheathing directly applied or 4-5-3 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

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

TOP CHORD	2-3=-1621/399, 3-4=-1292/308, 4-5=-1154/310, 5-6=-1291/308, 6-7=-1621/399
BOT CHORD	2-11=-341/1480, 9-11=-182/1153, 7-9=-319/1480
WEBS	3-11=-366/179, 4-11=-30/315, 5-9=32/315, 6-9=-366/180

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 9-0-0, Exterior(2E) 9-0-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-2-15, Interior(1) 17-2-15 to 23-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=207, 7=207.



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Date:

July 15, 2021

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Design valid for use only with MITEKO connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI 1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
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Job 2871649	Truss T03	Truss Type Common	Qty 6	Ply 1	MIKE TODD CONST. - SANDIA	T24688883
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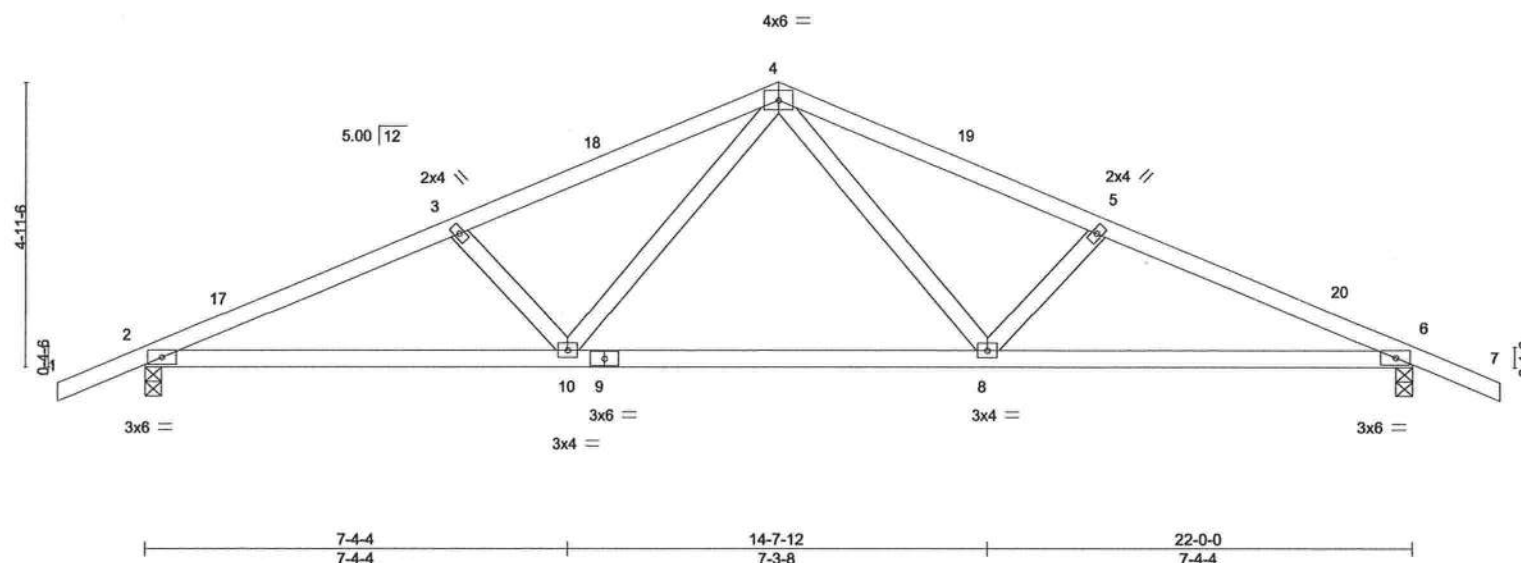
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:50 2021 Page 1

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-1-6-0	5-5-7	11-0-0	16-6-9	22-0-0	23-6-0
1-6-0	5-5-7	5-6-9	5-6-9	5-5-7	1-6-0

Scale = 1:40.1



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.46	Vert(LL)	-0.18	8-10	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.87	Vert(CT)	-0.37	8-10	>718	180	244/190
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.26	Horz(CT)	0.05	6	n/a	n/a	
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						
								Weight: 99 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 8-10-3 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
Max Horz 2=-77(LC 13)  
Max Uplift 2=-244(LC 12), 6=-244(LC 13)  
Max Grav 2=1041(LC 1), 6=1041(LC 1)

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

TOP CHORD 2-3=-2023/543, 3-4=-1831/511, 4-5=-1831/511, 5-6=-2023/543  
BOT CHORD 2-10=-428/1825, 8-10=-235/1214, 6-8=-440/1825  
WEBS 4-8=-172/692, 5-8=-303/176, 4-10=-172/692, 3-10=-303/176

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 23-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=244, 6=244.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-7=-54, 10-11=-20, 8-10=-60(F=-40), 8-14=-20



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Date:

July 15,2021

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

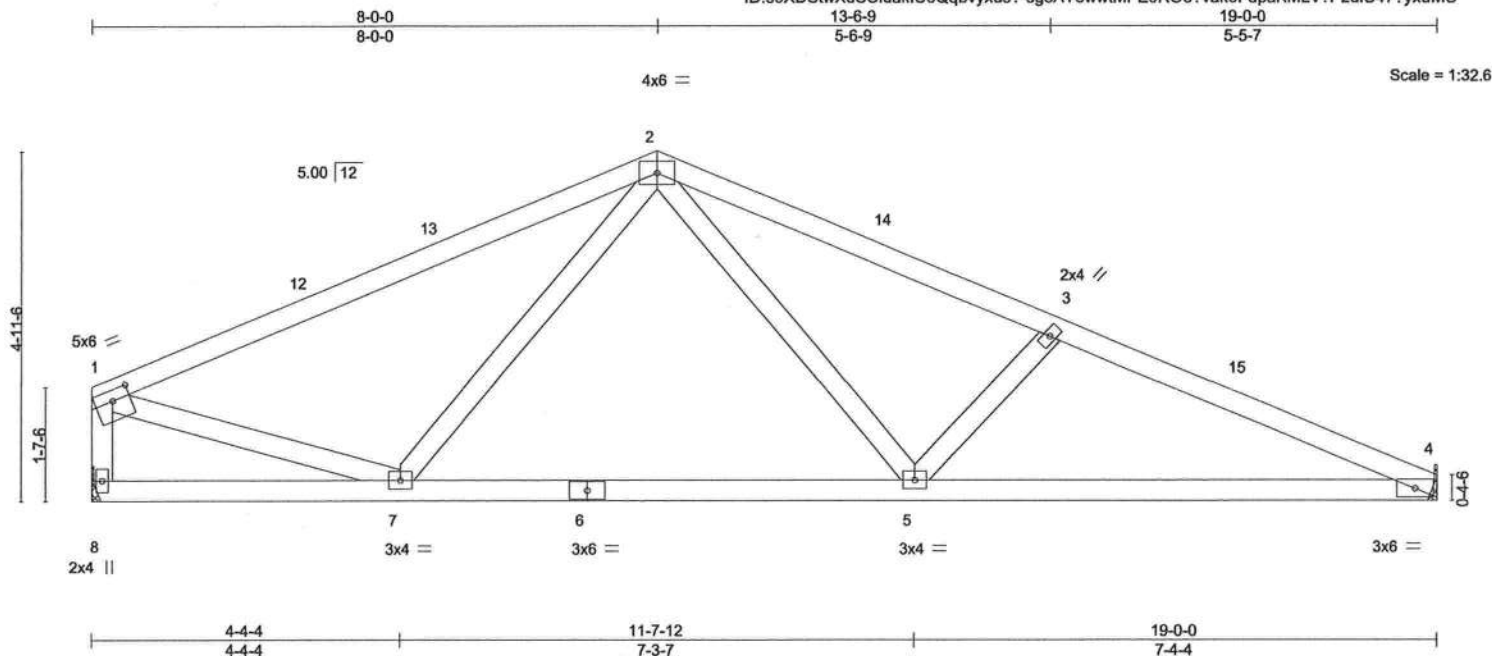


6904 Parke East Blvd.  
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688884
2871649	T04	Common	3	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:51 2021 Page 1  
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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	2-0-0	TC	0.82	in (loc)	l/defl	L/d	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(LL)	-0.06 5-7 >999	240			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.21	Vert(CT)	-0.13 5-7 >999	180			
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS		Horz(CT)	0.02 4 n/a	n/a			
										Weight: 88 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 4=Mechanical, 8=Mechanical  
Max Horz 8=-94(LC 13)  
Max Uplift 4=-155(LC 13), 8=-134(LC 12)  
Max Grav 4=698(LC 1), 8=698(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-804/225, 2-3=-1159/362, 3-4=-1345/396, 1-8=-664/209  
BOT CHORD 5-7=-140/708, 4-5=-321/1217  
WEBS 2-5=-123/522, 3-5=-330/182, 1-7=-62/553

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 19-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=155, 8=134.



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July 15,2021

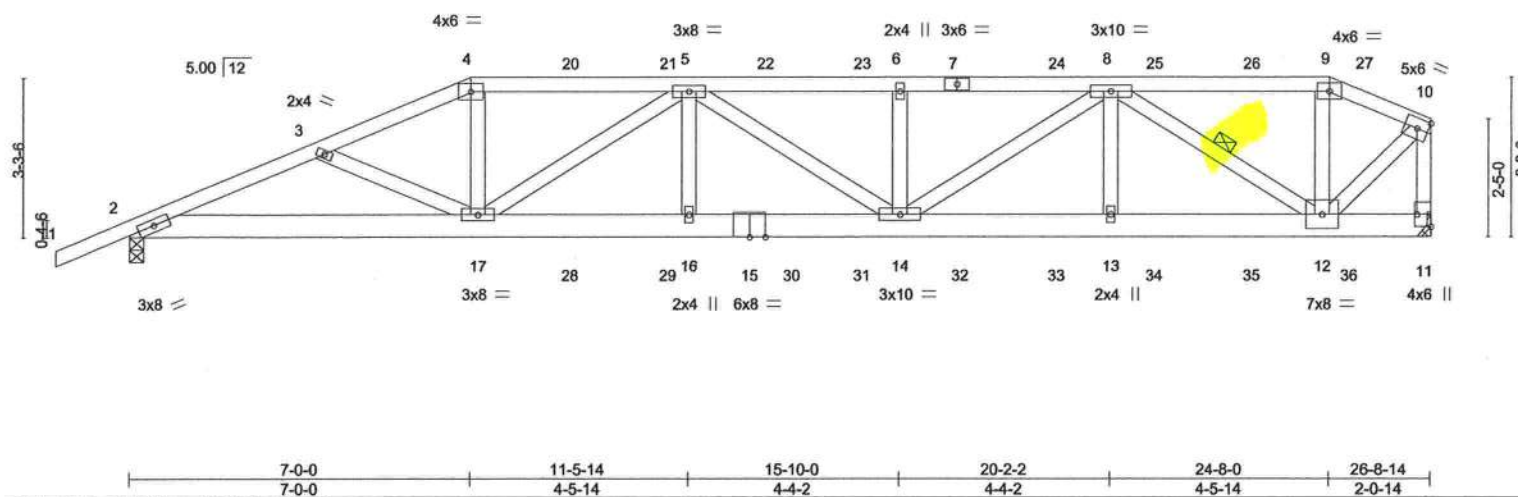
**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688885
2871649	T05	Hip Girder	1	1		

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:53 2021 Page 1  
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 -1-6-0 3-11-15 7-0-0 11-5-14 15-10-0 20-2-2 24-8-0 26-8-14  
 1-6-0 3-11-15 3-0-1 4-5-14 4-4-2 4-4-2 4-5-14 2-0-14  
 Scale = 1:47.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.79	in (loc)	l/defl	L/d	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.95	Vert(LL)	-0.25 14-16	>999 240			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.76	Vert(CT)	-0.47 14-16	>677 180			
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS		Horz(CT)	0.11 11	n/a n/a			
										Weight: 165 lb	FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-3-2 oc purlins, except end verticals.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-11-15 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 8-12

**REACTIONS.** (size) 2=0-3-8, 11=Mechanical  
 Max Horz 2=103(LC 27)  
 Max Uplift 2=459(LC 8), 11=479(LC 5)  
 Max Grav 2=1954(LC 1), 11=2105(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=4404/1011, 3-4=4231/950, 4-5=3948/907, 5-6=4789/1116, 6-8=4789/1116, 8-9=1450/345, 9-10=1577/365, 10-11=2076/476  
 BOT CHORD 2-17=978/4039, 16-17=1126/4931, 14-16=1126/4931, 13-14=853/3684, 12-13=853/3684  
 WEBS 4-17=188/1245, 5-17=1241/319, 5-16=0/351, 6-14=443/213, 8-14=316/1331, 8-13=0/367, 8-12=2690/636, 9-12=0/335, 10-12=455/2007

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=459, 11=479.
  - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 82 lb up at 7-0-0, 109 lb down and 82 lb up at 9-0-12, 109 lb down and 82 lb up at 11-0-12, 109 lb down and 82 lb up at 13-0-12, 109 lb down and 81 lb up at 15-0-12, 109 lb down and 82 lb up at 17-0-12, 109 lb down and 82 lb up at 19-0-12, 109 lb down and 82 lb up at 21-0-12, and 109 lb down and 82 lb up at 23-0-12, and 137 lb down and 82 lb up at 25-0-12 on top chord, and 335 lb down and 67 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 15-0-12, 85 lb down at 17-0-12, 85 lb down at 19-0-12, 85 lb down at 21-0-12, and 85 lb down at 23-0-12, and 85 lb down at 25-0-12 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  
 Continued on page 2



Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date: July 15,2021

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688885
2871649	T05	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:54 2021 Page 2  
ID:s0XDSwXuSCluakIU6Qqbvyxus?-GFpJAAyp9Hep0v6hh17RkuFJHY11IEUUaglikkKyxuMR

# **LOAD CASE(S)** Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-4=-54, 4-9=-54, 9-10=-54, 2-11=-20

Concentrated Loads (lb)

Vert: 4=-109(F) 7=-109(F) 17=-335(F) 20=-109(F) 21=-109(F) 22=-109(F) 23=-109(F) 24=-109(F) 25=-109(F) 26=-109(F) 27=-109(F) 28=-65(F) 29=-65(F)  
30=-65(F) 31=-65(F) 32=-65(F) 33=-65(F) 34=-65(F) 35=-65(F) 36=-65(F)

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

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

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

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



6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688886
2871649	T06	Hip	1	1		

Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:55 2021 Page 1  
 ID:s0XDStwXuSCLuakIU6Qqbvyxus?kSNhOWzRwbmge2htEkegH5nY7yg5RmedpKSiGmyxuMQ  
 -1-6-0 4-7-9 9-0-0 15-10-0 22-8-0 26-8-14  
 1-6-0 4-7-9 4-4-7 6-10-0 6-10-0 4-0-14  
 Scale = 1:47.5

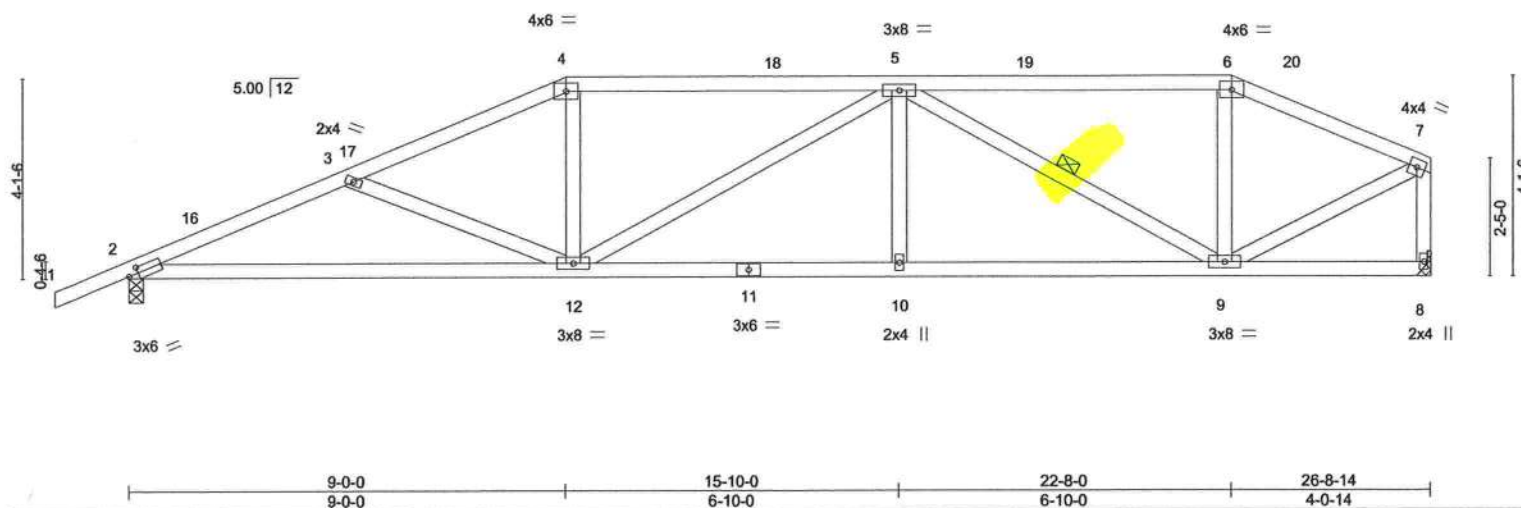


Plate Offsets (X,Y) - [2:0-2-6,0-1-8]		9-0-0 15-10-0 22-8-0 26-8-14	
		9-0-0 6-10-0 6-10-0 4-0-14	
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d
TCLL 20.0	Plate Grip DOL 1.25	TC 0.52	Vert(LL) -0.15 12-15 >999 240
TCDL 7.0	Lumber DOL 1.25	BC 0.77	Vert(CT) -0.32 12-15 >999 180
BCLL 0.0 *	Rep Stress Incr YES	WB 0.39	Horz(CT) 0.06 8 n/a n/a
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	
		<b>PLATES</b>	<b>GRIP</b>
		MT20	244/190
		Weight: 138 lb FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-11-1 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 8-3-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-9

**REACTIONS.** (size) 2=0-3-8, 8=Mechanical  
 Max Horz 2=116(LC 12)  
 Max Uplift 2=261(LC 12), 8=215(LC 9)  
 Max Grav 2=1067(LC 1), 8=982(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=2050/495, 3-4=1743/391, 4-5=1578/388, 5-6=917/240, 6-7=1026/243, 7-8=953/222  
 BOT CHORD 2-12=510/1871, 10-12=414/1726, 9-10=414/1726  
 WEBS 3-12=333/166, 4-12=30/425, 5-12=296/105, 5-10=0/254, 5-9=959/247, 7-9=223/1014

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 22-8-0, Exterior(2E) 22-8-0 to 26-7-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=261, 8=215.



Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

July 15,2021

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



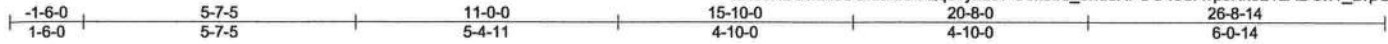
6904 Parke East Blvd.  
 Tampa, FL 33610

Job 2871649	Truss T07	Truss Type Hip	Qty 1	Ply 1	MIKE TODD CONST. - SANDIA	T24688887
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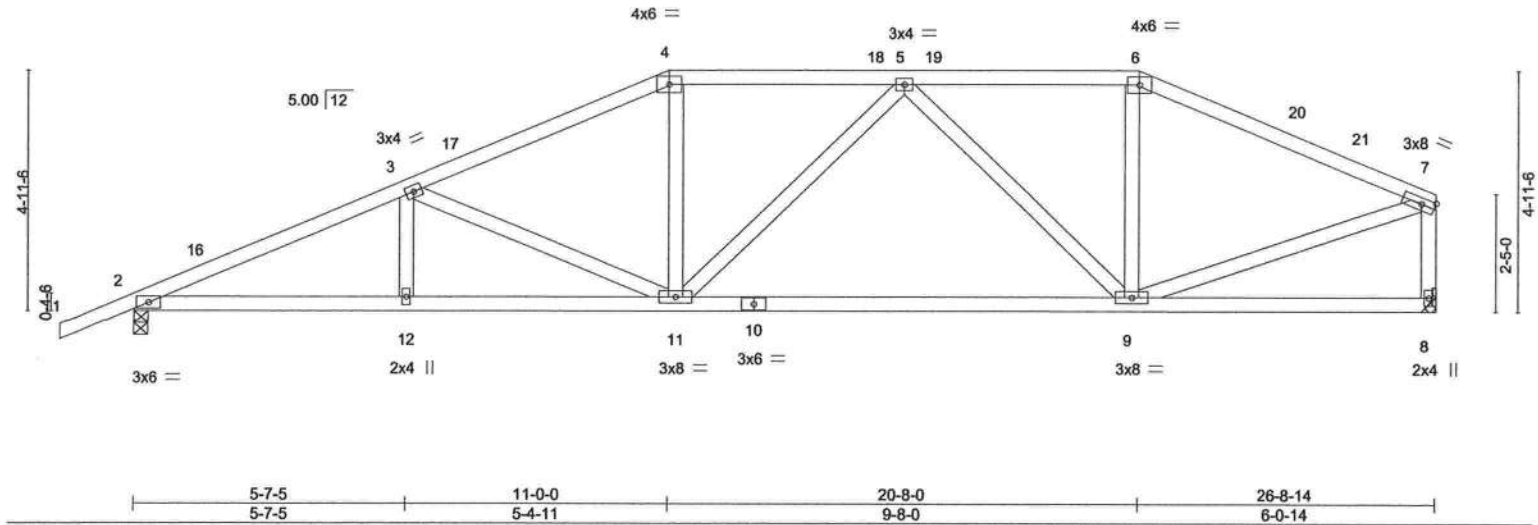
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:56 2021 Page 1

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Scale = 1:47.5



LOADING (psf)	SPACING-	CSL	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.46	Vert(LL)	-0.18	9-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.77	Vert(CT)	-0.39	9-11	>813	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.43	Horz(CT)	0.05	8	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						Weight: 140 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-11-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 8-5-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 8=Mechanical  
Max Horz 2=128(LC 12)  
Max Uplift 2=259(LC 12), 8=193(LC 13)  
Max Grav 2=1067(LC 1), 8=982(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=2057/463, 3-4=1565/348, 4-5=1397/349, 5-6=1028/259, 6-7=1172/253, 7-8=937/220  
BOT CHORD 2-12=488/1856, 11-12=488/1856, 9-11=296/1352  
WEBS 3-11=513/205, 4-11=34/369, 5-9=510/172, 6-9=17/250, 7-9=187/1032

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 to 20-8-0, Exterior(2R) 20-8-0 to 24-10-15, Interior(1) 24-10-15 to 26-7-2 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=259, 8=193.



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Date:

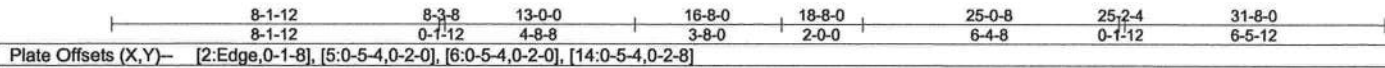
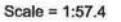
July 15,2021

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T24688888

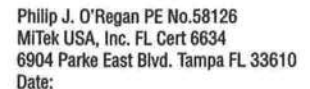
8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:57 2021 Page 1  
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<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3		

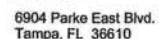
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 3-4=-67/397, 4-5=-364/121, 5-6=-558/156, 6-7=-636/152  
**BOT CHORD** 13-14=-404/127, 12-13=0/302, 11-12=-6/532  
**WEBS** 3-14=-306/226, 4-14=-720/201, 4-13=-80/698, 5-13=-368/96, 5-12=-39/362,  
 7-11=-25/657, 7-10=-716/217

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDF=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 1-6-0 to 1-8-0, Interior(1) 1-8-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-5-12, Interior(1) 17-5-12 to 18-8-0, Exterior(2R) 18-8-0 to 23-1-12, Interior(1) 23-1-12 to 33-2-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 2, 258 lb uplift at joint 14, 204 lb uplift at joint 10 and 133 lb uplift at joint 8.



July 15, 2021

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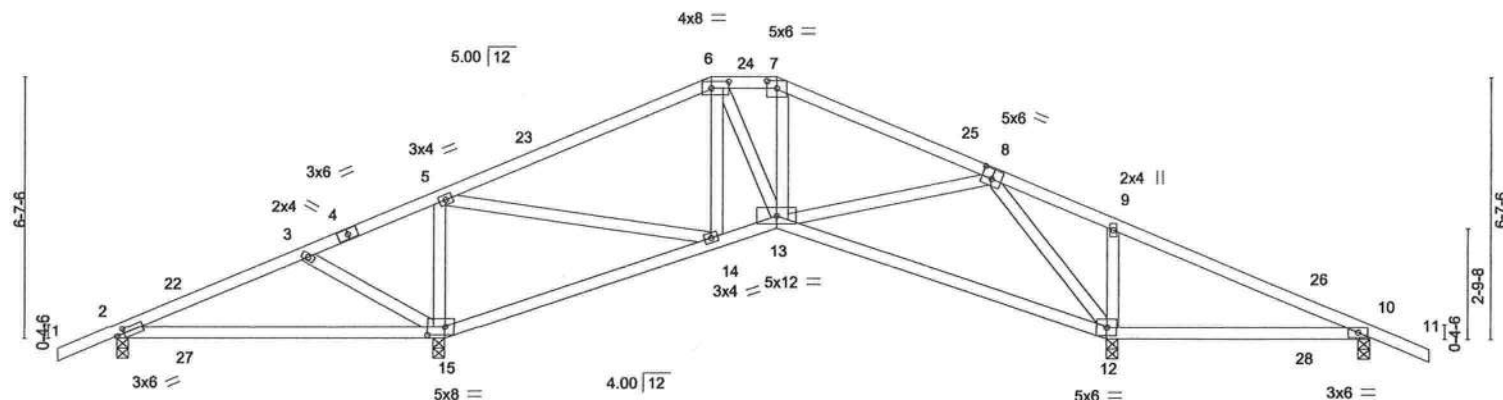
8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:58 2021 Page 1

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1-6-0 4-9-14 8-3-8 15-0-0 16-8-0 22-1-0 25-0-8 31-8-0 33-2-0

1-6-0 4-9-14 3-5-10 6-8-8 1-8-0 5-5-0 2-11-8 6-7-8 1-6-0

Scale = 1:58.8



<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.45	Vert(LL) 0.22 15-18 >443 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.62	Vert(CT) -0.35 12-13 >577 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.36	Horz(CT) 0.03 12 n/a n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS		Weight: 159 lb	FT = 20%

**REACTIONS.** All bearings 0-3-8.  
(lb) - Max Horz 2=102(LC 16)  
Max Uplift All uplift 100 lb or less at joint(s) except 2=-143(LC 8), 15=-252(LC 12), 12=-202(LC 13),  
10=-138(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 10 except 2=307(LC 23), 15=1035(LC 1), 12=962(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 5-6=569/132, 6-7=536/159, 7-8=641/142, 9-10=20/253  
BOT CHORD 13-14=0/474, 12-13=58/274  
WEBS 5-15=697/223, 5-14=43/667, 6-13=28/275, 8-13=0/315, 8-12=718/107,  
9-12=282/159

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-8-0, Interior(1) 1-8-0 to 15-0-0, Exterior(2E) 15-0-0 to 16-8-0, Exterior(2R) 16-8-0 to 21-1-12, Interior(1) 21-1-12 to 33-2-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 143 lb uplift at joint 2, 252 lb uplift at joint 15, 202 lb uplift at joint 12 and 138 lb uplift at joint 10.



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15, 2021

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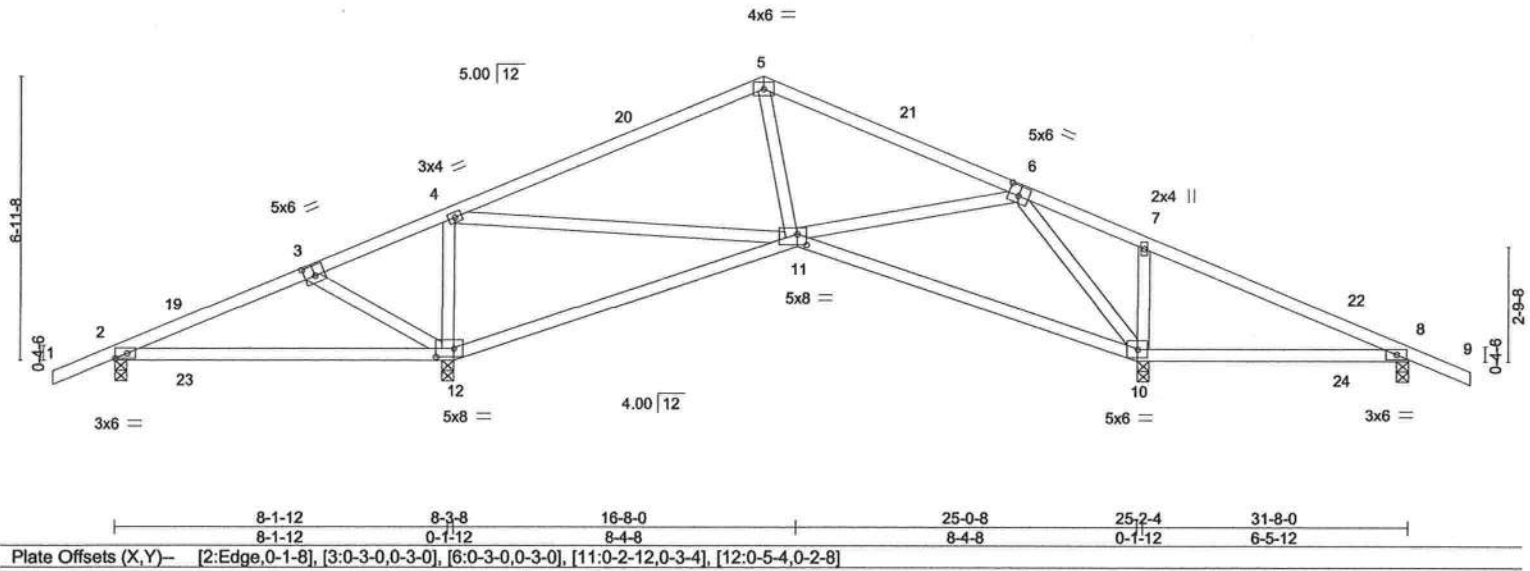
Design valid for use only with Mitek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20681



6904 Parke East Blvd.  
Tampa, FL 36610

Job 2871649	Truss T10	Truss Type Roof Special	Qty 6	Ply 1	MIKE TODD CONST. - SANDIA	T24688890
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,						8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:21:59 2021 Page 1
Job Reference (optional)						ID:s0XDStwXuSCLuaklU6Qqbvyxus?-dDdCDt0y_pG56g?ITajcRxyD7Z4wNaeDjyQVPXyxuMM

1-6-0	4-9-14	8-3-8	15-10-0	22-1-0	25-0-8	31-8-0	33-2-0
1-6-0	4-9-14	3-5-10	7-6-8	6-3-0	2-11-8	6-7-8	1-6-0
Scale = 1:56.5							



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.58	Vert(LL) 0.23 12-15 >425 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.39	Vert(CT) 0.20 12-15 >501 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.03 10 n/a n/a		
	Code FBC2020/TPI2014			Weight: 152 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-6-13 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	10-0-0 oc bracing: 10-11.

<b>REACTIONS.</b>	All bearings 0-3-8.
(lb) - Max Horz 2=107(LC 16)	
Max Uplift All uplift 100 lb or less at joint(s) except 2=147(LC 8), 12=247(LC 12), 10=202(LC 13), 8=140(LC 9)	
Max Grav All reactions 250 lb or less at joint(s) 8 except 2=324(LC 23), 12=1002(LC 1), 10=984(LC 1)	

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 4-5=-655/159, 5-6=-654/147, 6-7=0/250, 7-8=-19/278	
BOT CHORD 10-11=-61/280	
WEBS 4-12=-678/237, 4-11=-23/665, 6-11=0/335, 6-10=-761/123, 7-10=-273/156	

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-8-0, Interior(1) 1-8-0 to 15-10-0, Exterior(2R) 15-10-0 to 19-0-0, Interior(1) 19-0-0 to 33-2-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 2, 247 lb uplift at joint 12, 202 lb uplift at joint 10 and 140 lb uplift at joint 8.



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MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date: July 15,2021

Job 2871649	Truss T11	Truss Type Roof Special	Qty 3	Ply 1	MIKE TODD CONST. - SANDIA T24688891
Job Reference (optional)					

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:00 2021 Page 1  
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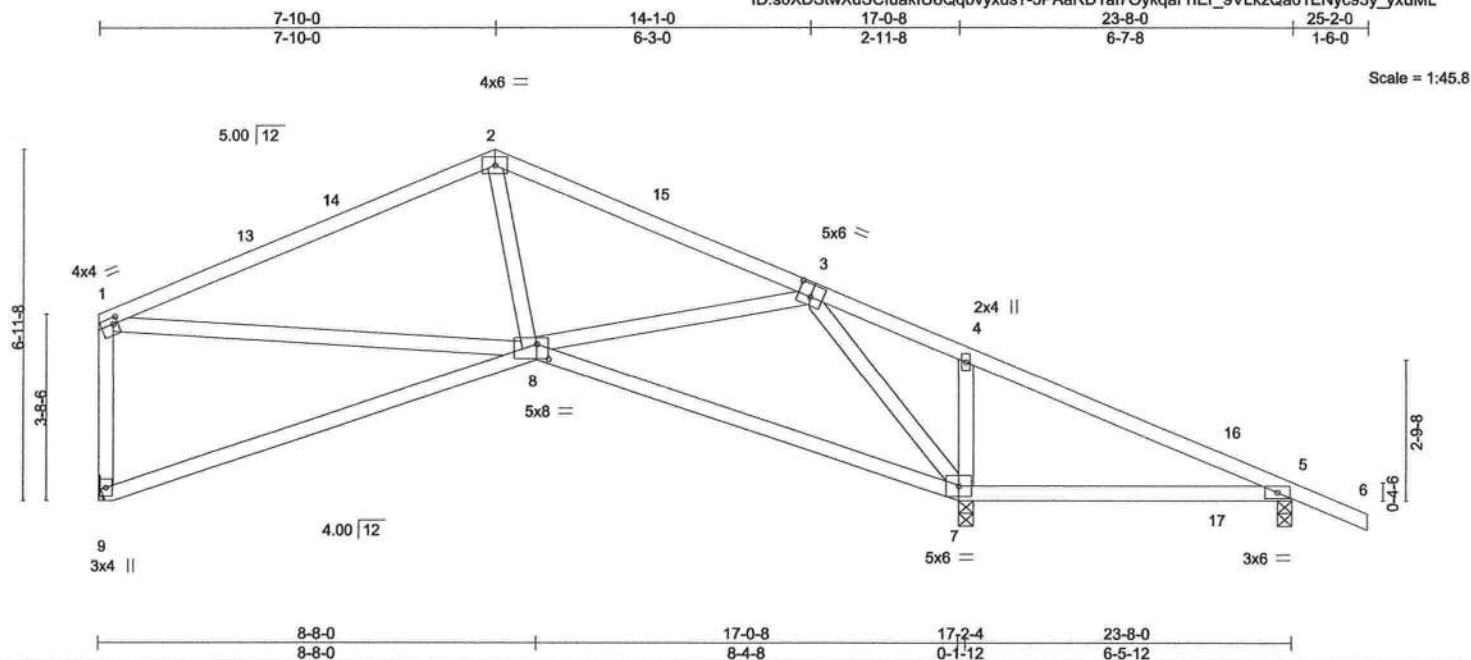


Plate Offsets (X,Y)-- [1:0-1-0,0-1-8], [3:0-3-0,0-3-0], [8:0-2-12,0-3-8]

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	L/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.79	Vert(LL)	0.14	7-12	>583	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.62	Vert(CT)	-0.37	8-9	>546		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.43	Horz(CT)	0.03	7	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS						
	Code FBC2020/TPI2014						Weight: 119 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-5-6 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 9=Mechanical, 7=0-3-8, 5=0-3-8  
Max Horz 9=-183(LC 13)  
Max Uplift 9=-121(LC 12), 7=-184(LC 13), 5=-141(LC 9)  
Max Grav 9=574(LC 1), 7=1042(LC 1), 5=232(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-757/166, 2-3=-776/150, 3-4=0/266, 4-5=-22/295, 1-9=-509/153  
BOT CHORD 7-8=-57/311  
WEBS 2-8=0/304, 3-8=0/417, 3-7=-842/94, 4-7=-276/175, 1-8=-75/569

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-10-0, Exterior(2R) 7-10-0 to 10-10-0, Interior(1) 10-10-0 to 25-2-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 121 lb uplift at joint 9, 184 lb uplift at joint 7 and 141 lb uplift at joint 5.



Phillip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15,2021

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

**MiTek**  
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss T12	Truss Type Roof Special	Qty 1	Ply 1	MIKE TODD CONST. - SANDIA	T24688892
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:02 2021 Page 1

ID:s0XDStwXuScIuakIU6Qqbvyxus7-1olKsv2qHkegz7JD9iGJ3aapNm7yaxzfQve90syxuMJ

Job Reference (optional)

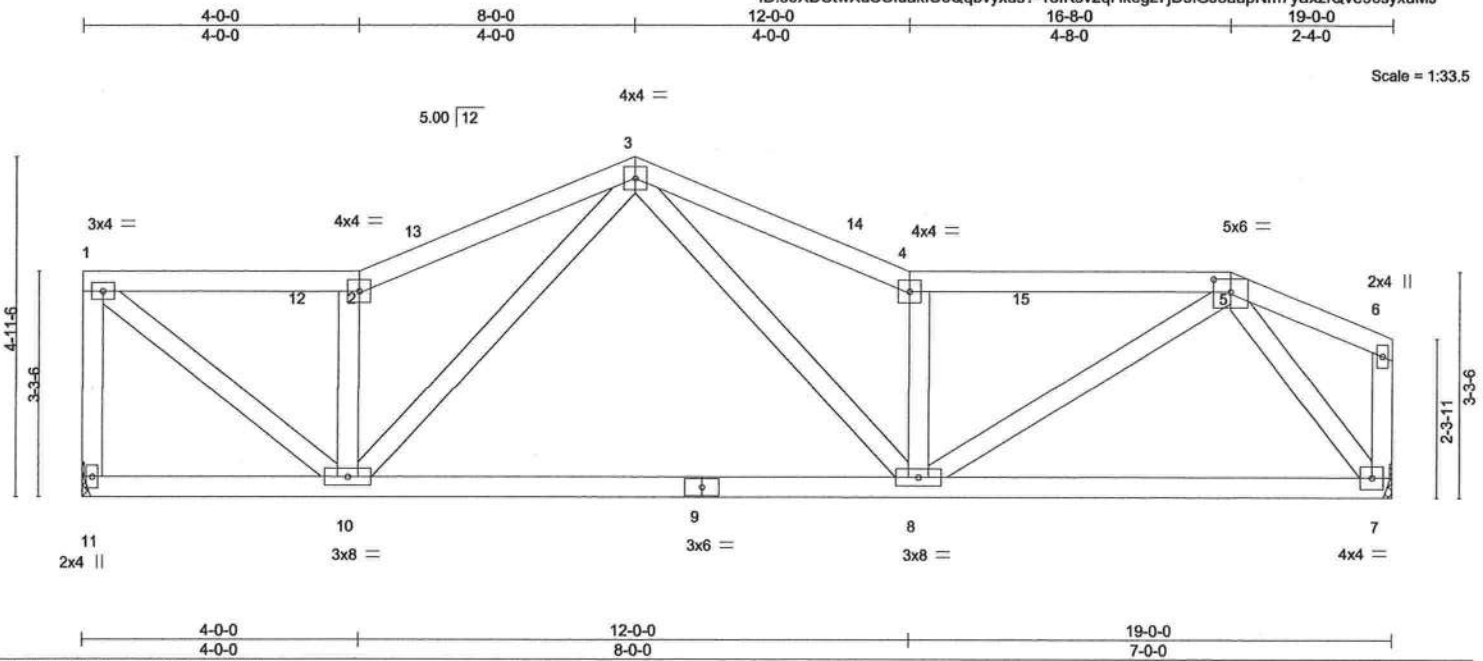


Plate Offsets (X,Y)– [5.0-3.0,0-2.4]											
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc)		l/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.27	Vert(LL)	-0.10 8-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.56	Vert(CT)	-0.21 8-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.01 7	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 110 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 11=Mechanical, 7=Mechanical  
Max Horz 11=-56(LC 13)  
Max Uplift 11=-138(LC 12), 7=-153(LC 13)  
Max Grav 11=692(LC 1), 7=692(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-11=-676/209, 1-2=-724/202, 2-3=-851/269, 3-4=-1204/386, 4-5=-1042/311  
BOT CHORD 8-10=-180/674, 7-8=-144/449  
WEBS 1-10=-252/915, 2-10=-522/210, 3-8=-163/614, 4-8=-677/260, 5-8=-159/710, 5-7=-727/246

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 16-8-0, Exterior(2E) 16-8-0 to 18-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 7) Refer to girder(s) for truss to truss connections.
  - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 138 lb uplift at joint 11 and 153 lb uplift at joint 7.



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MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15,2021

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

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

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

**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss T13	Truss Type Roof Special	Qty 1	Ply 1	MIKE TODD CONST. - SANDIA	T24688893
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:03 2021 Page 1

ID:s0XDStwXuSCLuakIU6Qqbvyxus?-V\_sj3F3S22mXbHIQoYbn7xXAS?JNkpeZOjZJyxuMI

Job Reference (optional)

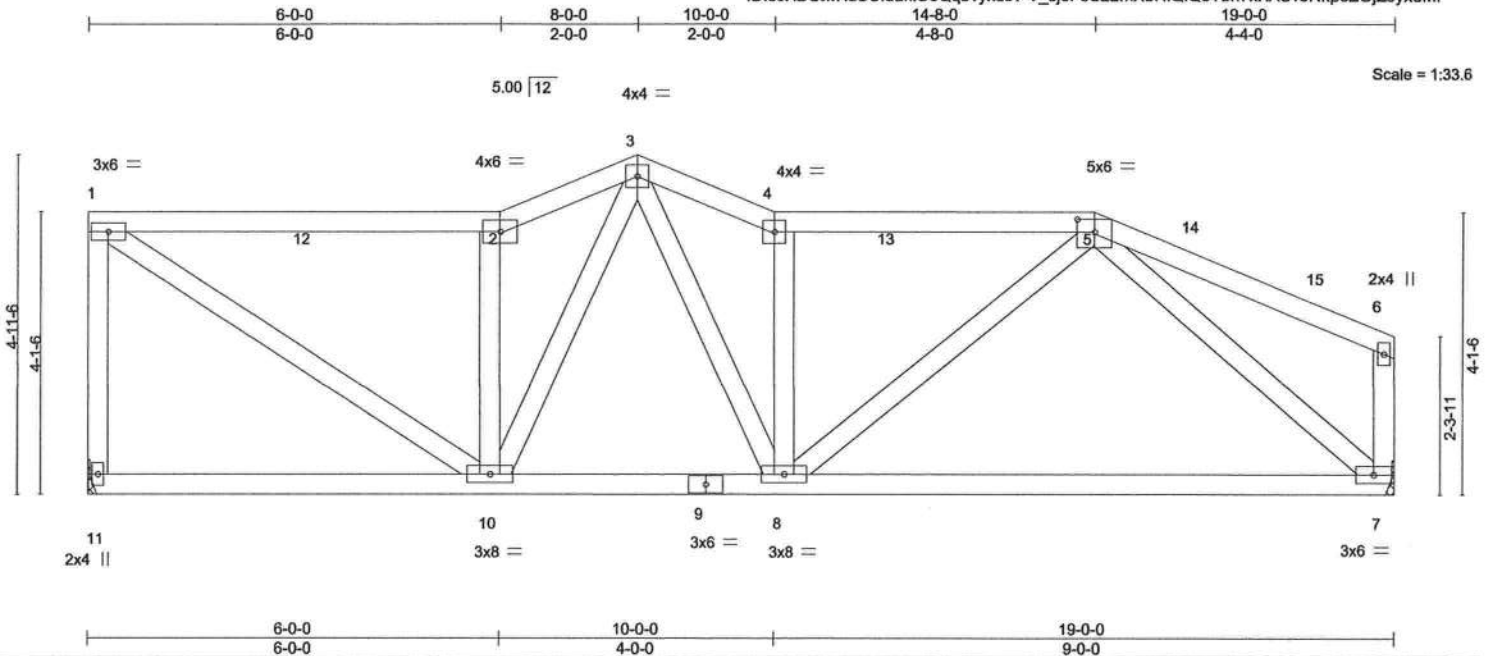


Plate Offsets (X,Y)-- [5:0-3-0,0-2-4]

LOADING (psf)	SPACING-		CSL	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.50	Vert(LL)	-0.16	7-8	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.64	Vert(CT)	-0.33	7-8	>684	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.44	Horz(CT)	0.01	7	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS							
									Weight: 117 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-13 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 11=Mechanical, 7=Mechanical  
Max Horz 11=-73(LC 13)  
Max Uplift 11=-143(LC 12), 7=-150(LC 13)  
Max Grav 11=692(LC 1), 7=692(LC 1)

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

TOP CHORD 1-11=-633/222, 1-2=-739/227, 2-3=-854/282, 3-4=-996/325, 4-5=-877/273  
BOT CHORD 8-10=-154/686, 7-8=-172/578  
WEBS 1-10=-264/855, 2-10=-556/227, 3-8=-152/508, 4-8=-556/217, 5-8=-49/391, 5-7=-710/229

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 8-0-0, Exterior(2E) 8-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-8-0, Exterior(2R) 14-8-0 to 17-8-0, Interior(1) 17-8-0 to 18-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 143 lb uplift at joint 11 and 150 lb uplift at joint 7.



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15,2021

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

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



6904 Parke East Blvd.  
Tampa, FL 33610

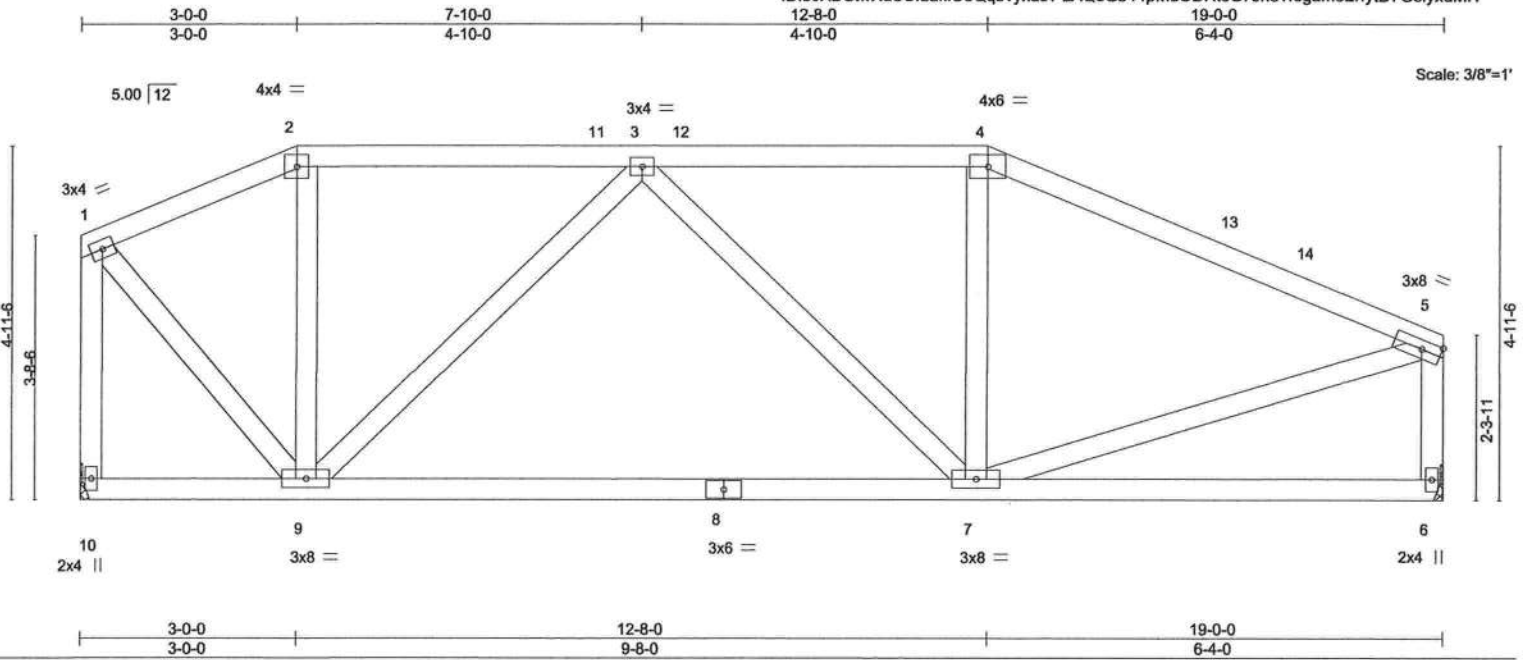
Job 2871649	Truss T14	Truss Type Hip	Qty 1	Ply 1	MIKE TODD CONST. - SANDIA	T24688894
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:04 2021 Page 1

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Job Reference (optional)



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.47	Vert(LL)	-0.15 7-9	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.67	Vert(CT)	-0.31 7-9	>724	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.01 6	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 113 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-8-9 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 10=Mechanical, 6=Mechanical  
Max Horz 10=-66(LC 13)  
Max Uplift 10=-154(LC 8), 6=-153(LC 13)  
Max Grav 10=692(LC 1), 6=692(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-467/128, 2-3=-406/137, 3-4=-666/206, 4-5=-787/187, 1-10=-704/187, 5-6=-644/180  
BOT CHORD 7-9=-150/678  
WEBS 3-9=-398/146, 1-9=-138/618, 5-7=-101/638

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-0-0, Exterior(2R) 3-0-0 to 7-2-15, Interior(1) 7-2-15 to 12-8-0, Exterior(2R) 12-8-0 to 16-10-15, Interior(1) 16-10-15 to 18-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 154 lb uplift at joint 10 and 153 lb uplift at joint 6.



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15,2021

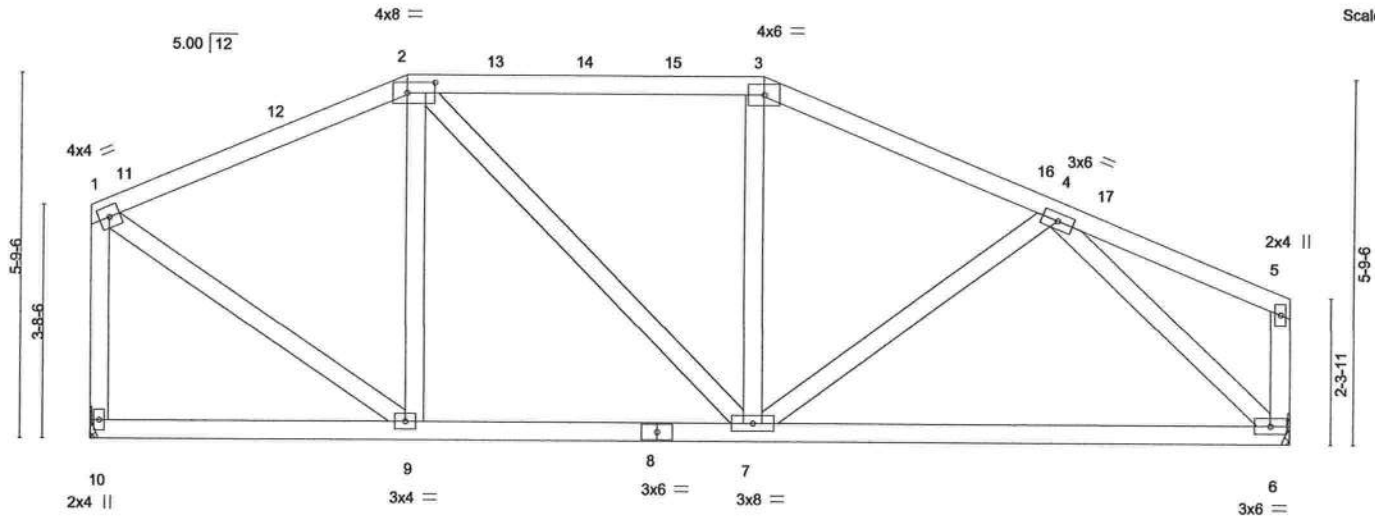
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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6904 Parke East Blvd.  
Tampa, FL 33610



Scale = 1:36.6



5-0-0	10-8-0	19-0-0
5-0-0	5-8-0	8-4-0

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.44	Vert(LL) -0.13 6-7 >999 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.59	Vert(CT) -0.26 6-7 >854 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.36	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS		Weight: 116 lb	FT = 20%

**LUMBER-**  
**TOP CHORD** 2x4 SP No.2  
**BOT CHORD** 2x4 SP No.2  
**WEBS** 2x4 SP No.3

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

**REACTIONS.** (size) 10=Mechanical, 6=Mechanical  
 Max Horz 10=-78(LC 13)  
 Max Uplift 10=-136(LC 12), 6=-149(LC 13)  
 Max Grav 10=692(LC 1), 6=692(LC 1)

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

TOP CHORD 1-2=570/177, 2-3=612/221, 3-4=714/211, 1-10=644/207  
BOT CHORD 7-9=80/476, 6-7=151/560  
WEBS 1-9=139/563, 4-6=733/221

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 5-0-0, Exterior(2R) 5-0-0 to 9-2-15, Interior(1) 9-2-15 to 10-8-0, Exterior(2R) 10-8-0 to 14-10-15, Interior(1) 14-10-15 to 18-10-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 136 lb uplift at joint 10 and 149 lb uplift at joint 6.



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15, 2021

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**MiTek**

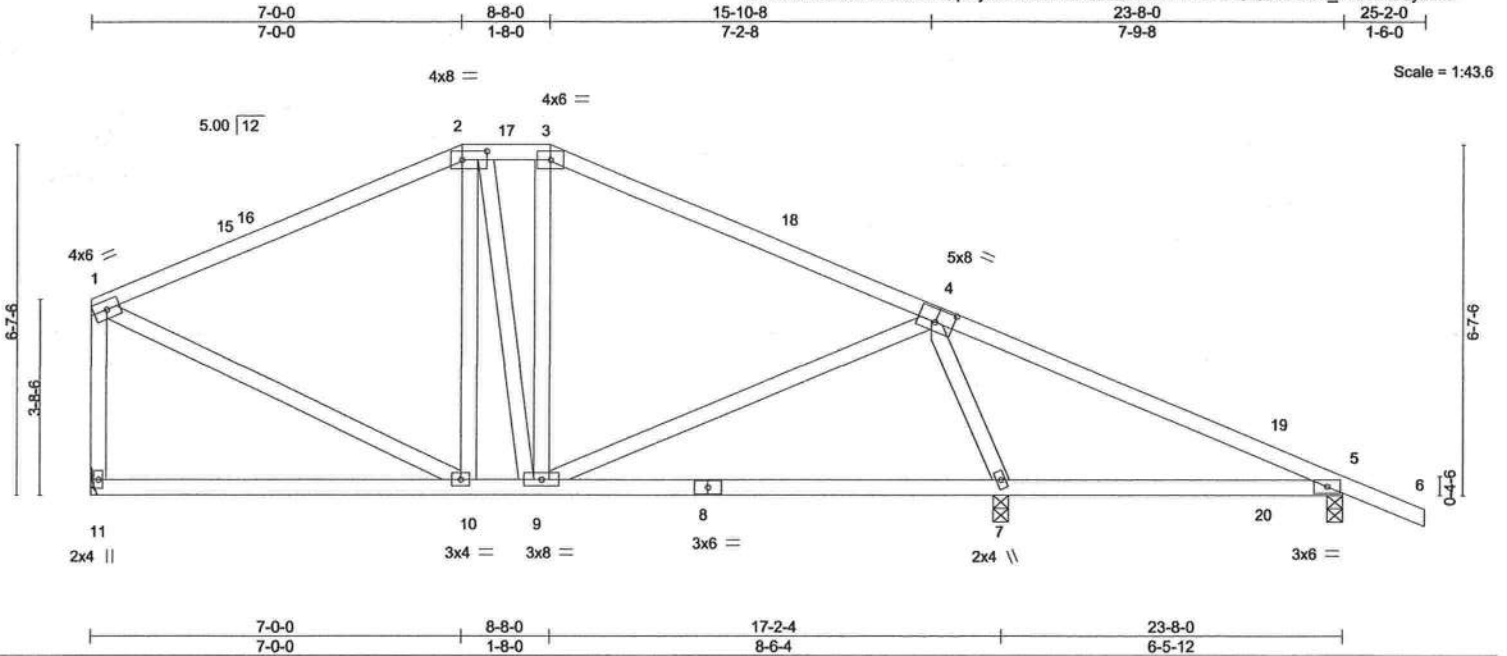
6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688896
2871649	T16	Hip	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:06 2021 Page 1

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LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.61	Vert(LL)	0.11 7-14 >683 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.20 7-9 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.01 7 n/a n/a				
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
								Weight: 135 lb FT = 20%			

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 5-7.
WEBS	2x4 SP No.3		

REACTIONS.	
(size)	11=Mechanical, 7=0-3-8, 5=0-3-8
Max Horz	11=-178(LC 13)
Max Uplift	11=-129(LC 12), 7=-179(LC 13), 5=-141(LC 9)
Max Grav	11=620(LC 1), 7=908(LC 1), 5=298(LC 24)

FORCES.	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	1-2=-538/160, 2-3=-439/174, 3-4=-564/156, 1-11=-555/174
BOT CHORD	9-10=-17/428, 7-9=-88/275
WEBS	4-7=-757/223, 1-10=-90/433

NOTES-	
1) Unbalanced roof live loads have been considered for this design.	
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-0-0, Exterior(2E) 7-0-0 to 8-8-0, Exterior(2R) 8-8-0 to 12-10-15, Interior(1) 12-10-15 to 25-2-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60	
3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.	
4) Provide adequate drainage to prevent water ponding.	
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.	
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.	
7) Refer to girder(s) for truss connections.	
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 129 lb uplift at joint 11, 179 lb uplift at joint 7 and 141 lb uplift at joint 5.	



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date: July 15,2021

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Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688897
2871649	T17	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:08 2021 Page 1

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Scale = 1:38.9

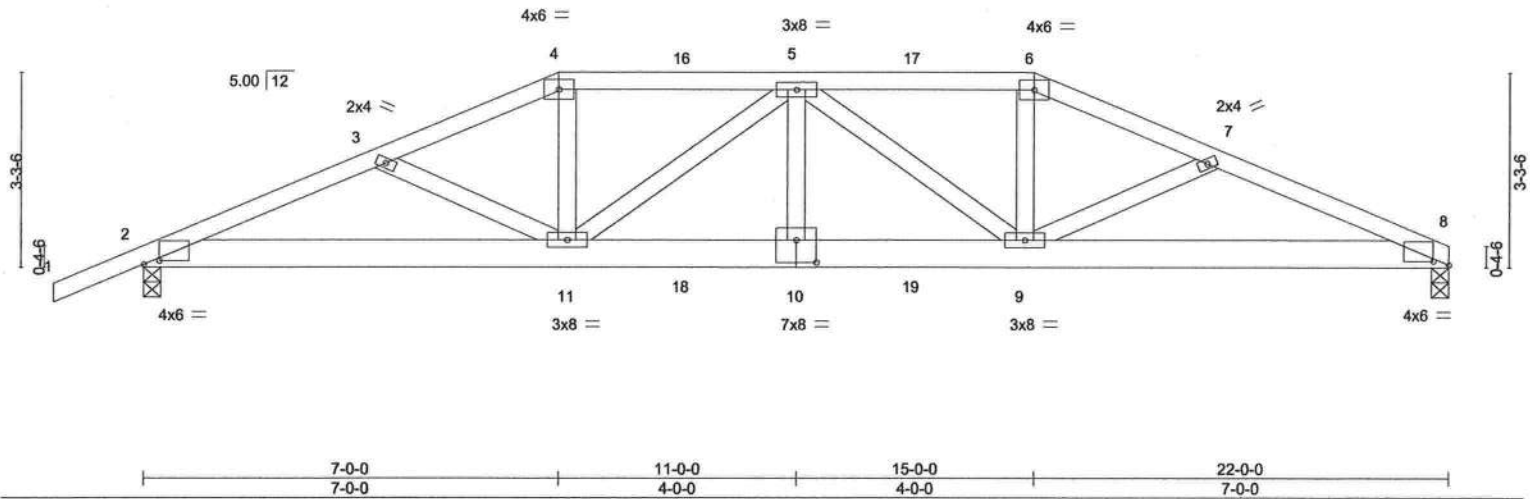


Plate Offsets (X,Y)-- [2:0-3-3,0-0-12], [8:0-3-3,0-0-12], [10:0-4-0,0-4-8]													
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/def L/d				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.51	Vert(LL)	-0.16	10	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.29	10	>898	180			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.08	8	n/a	n/a			
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							Weight: 123 lb	FT = 20%	

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-10-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 8-5-9 oc bracing.

**REACTIONS.** (size) 8=0-3-8, 2=0-3-8  
Max Horz 2=62(LC 31)  
Max Uplift 8=355(LC 9), 2=382(LC 8)  
Max Grav 8=1567(LC 1), 2=1626(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-3560/813, 3-4=-3375/750, 4-5=-3141/717, 5-6=-3214/737, 6-7=-3456/773, 7-8=-3649/841  
BOT CHORD 2-11=-754/3264, 10-11=-768/3620, 9-10=-768/3620, 8-9=-737/3348  
WEBS 4-11=-130/953, 5-11=-665/200, 5-10=0/271, 5-9=-568/149, 6-9=-103/912

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 355 lb uplift at joint 8 and 382 lb uplift at joint 2.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 82 lb up at 7-0-0, 109 lb down and 82 lb up at 9-0-12, 109 lb down and 75 lb up at 11-0-0, and 109 lb down and 82 lb up at 12-11-4, and 231 lb down and 161 lb up at 15-0-0 on top chord, and 335 lb down and 67 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-0, and 85 lb down at 12-11-4, and 335 lb down and 67 lb up at 14-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-6=-54, 6-8=-54, 2-8=-20



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July 15,2021

Continued on page 2

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6904 Parke East Blvd.  
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688897
2871649	T17	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:08 2021 Page 2  
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**LOAD CASE(S)** Standard  
Concentrated Loads (lb)

Vert: 4=-109(F) 6=-184(F) 11=-335(F) 10=-65(F) 5=-109(F) 9=-335(F) 16=-109(F) 17=-109(F) 18=-65(F) 19=-65(F)

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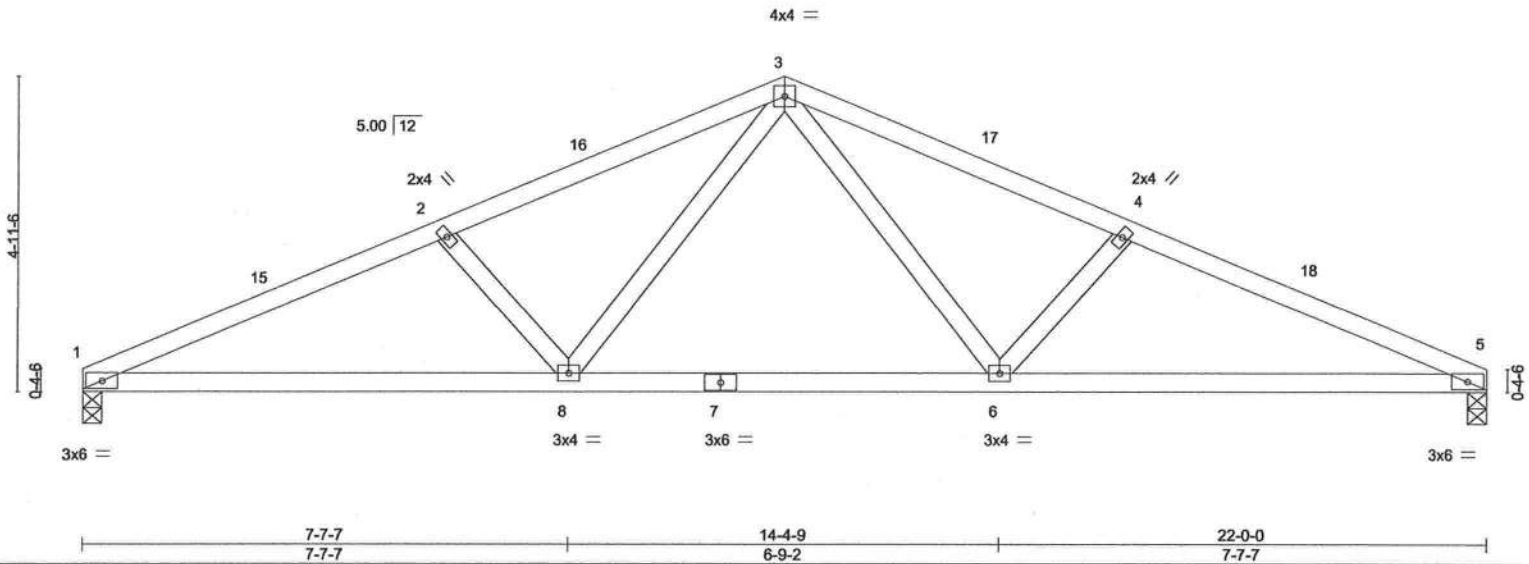
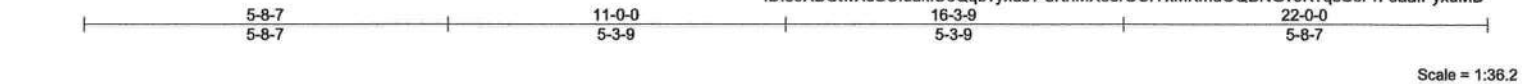
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Scale = 1:39.2



Job 2871649	Truss T19	Truss Type Common	Qty 2	Ply 1	MIKE TODD CONST. - SANDIA	T24688899
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,						Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:10 2021 Page 1  
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.33	Vert(LL)	-0.08 8-11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.58	Vert(CT)	-0.18 8-11	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.19	Horz(CT)	0.04 5	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS					Weight: 94 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-3-13 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 9-10-8 oc bracing.

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
Max Horz 1=68(LC 13)  
Max Uplift 1=172(LC 12), 5=172(LC 13)  
Max Grav 1=814(LC 1), 5=814(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-1619/429, 2-3=-1429/398, 3-4=-1429/398, 4-5=-1619/429  
BOT CHORD 1-8=-354/1468, 6-8=-184/973, 5-6=-350/1468  
WEBS 3-6=-127/504, 4-6=-331/183, 3-8=-127/504, 2-8=-331/183

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 22-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 1 and 172 lb uplift at joint 5.



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July 15, 2021

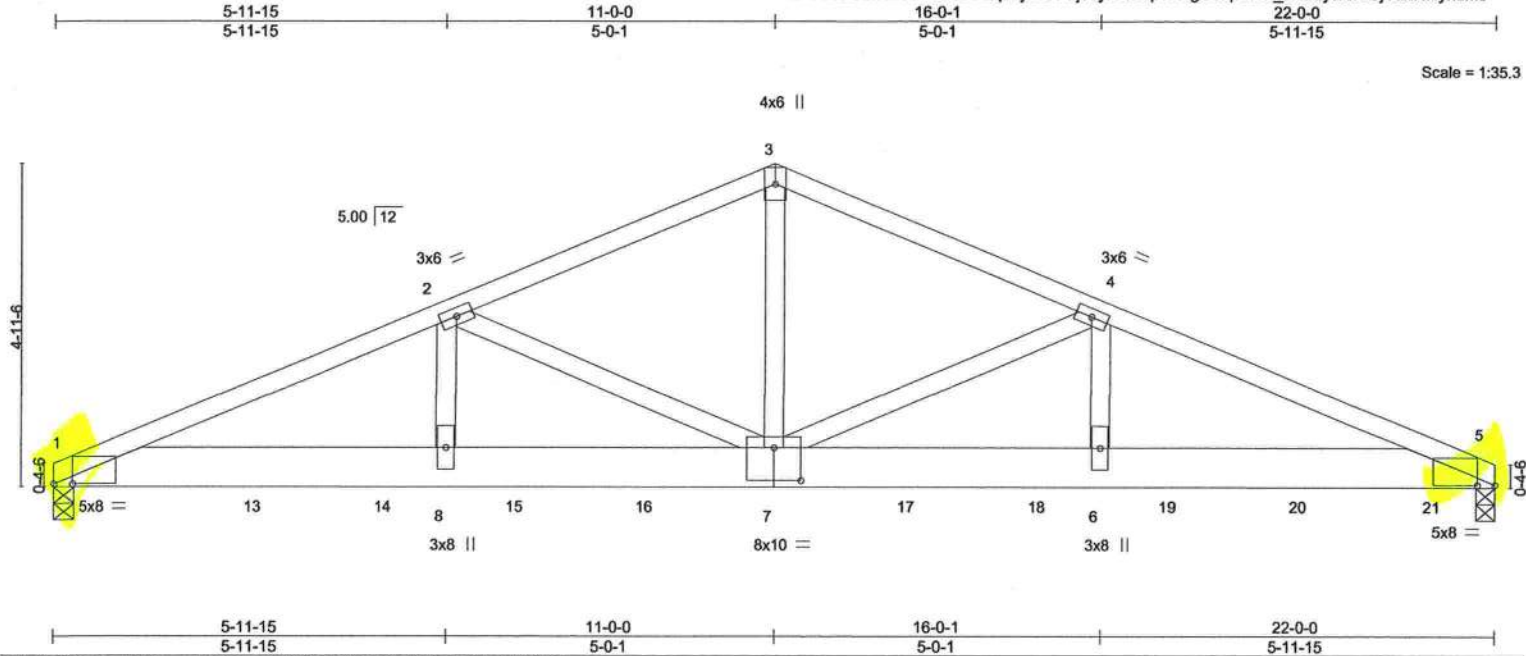
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Tampa, FL 33610

Job 2871649	Truss T20	Truss Type Common Girder	Qty 1	Ply 2	MIKE TODD CONST. - SANDIA	T24688900
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:12 2021 Page 1

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Scale = 1:35.3

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/def	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.51	Vert(LL)	-0.14	7-8	>999	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.39	Vert(CT)	-0.26	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.81	Horz(CT)	0.05	5	n/a		
BCDL 10.0	Code FBC2020/TP12014		Matrix-MS						
								Weight: 261 lb	FT = 20%

<b>LUMBER-</b>				<b>BRACING-</b>		
TOP CHORD	2x4 SP No.2			TOP CHORD		Structural wood sheathing directly applied or 3-10-8 oc purlins.
BOT CHORD	2x8 SP 2400F 2.0E			BOT CHORD		Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2x4 SP No.3					

**REACTIONS.** (size) 1=0-3-8, 5=0-3-8  
 Max Horz 1=67(LC 27)  
 Max Uplift 1=946(LC 8), 5=923(LC 9)  
 Max Grav 1=4419(LC 1), 5=4175(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-8671/1865, 2-3=-5952/1297, 3-4=-5952/1298, 4-5=-8270/1808  
 BOT CHORD 1-8=-1735/7975, 7-8=-1735/7975, 6-7=-1615/7603, 5-6=-1615/7603  
 WEBS 3-7=-898/4264, 4-7=-2409/621, 4-6=-331/1666, 2-7=-2822/678, 2-8=-377/1992

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 946 lb uplift at joint 1 and 923 lb uplift at joint 5.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 678 lb down and 153 lb up at 1-0-12, 678 lb down and 154 lb up at 3-0-12, 678 lb down and 154 lb up at 5-0-12, 672 lb down and 158 lb up at 7-0-12, 672 lb down and 163 lb up at 9-0-12, 672 lb down and 174 lb up at 11-0-12, 672 lb down and 156 lb up at 13-0-12, 600 lb down and 149 lb up at 15-0-12, 554 lb down and 141 lb up at 17-0-12, and 554 lb down and 141 lb up at 19-0-12, and 556 lb down and 139 lb up at 21-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard



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 6904 Parke East Blvd. Tampa FL 33610  
 Date: July 15,2021

Continued on page 2

Job 2871649	Truss T20	Truss Type Common Girder	Qty 1	Ply 2	MIKE TODD CONST. - SANDIA T24688900
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,					Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:12 2021 Page 2  
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#### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-3=-54, 3-5=-54, 1-5=-20

Concentrated Loads (lb)

Vert: 7=-672(B) 10=-678(B) 13=-678(B) 14=-678(B) 15=-672(B) 16=-672(B) 17=-672(B) 18=-600(B) 19=-554(B) 20=-554(B) 21=-556(B)

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Job 2871649	Truss T21	Truss Type Common	Qty 2	Ply 1	MIKE TODD CONST. - SANDIA	T24688901
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

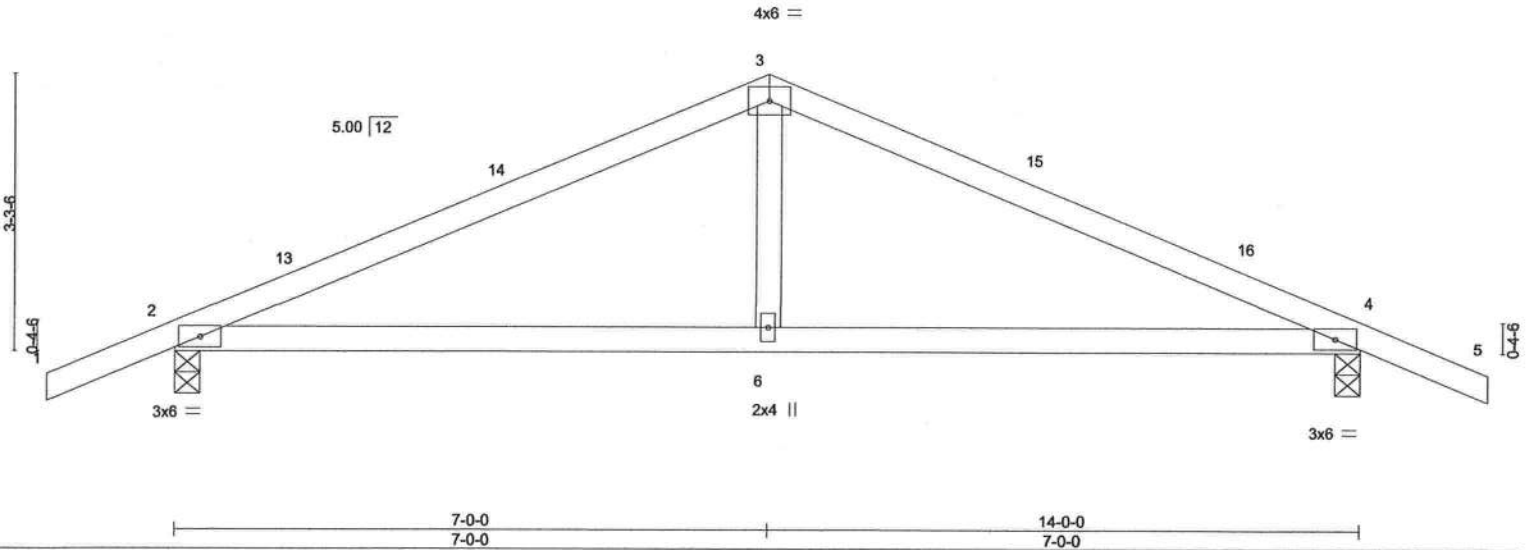
8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:13 2021 Page 1

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Job Reference (optional)

-1-6-0	7-0-0	14-0-0	15-6-0
1-6-0	7-0-0	7-0-0	1-6-0

Scale = 1:27.3



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.53	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.51	Vert(LL) -0.07 6-9 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.12	Vert(CT) -0.13 6-9 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 4 n/a n/a		
	Code FBC2020/TPJ2014			Weight: 53 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 5-7-1 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 4=0-3-8  
Max Horz 2=-53(LC 17)  
Max Uplift 2=-142(LC 12), 4=-142(LC 13)  
Max Grav 2=599(LC 1), 4=599(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-808/288, 3-4=-808/288  
BOT CHORD 2-6=-161/688, 4-6=-161/688  
WEBS 3-6=0/317

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 15-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 142 lb uplift at joint 2 and 142 lb uplift at joint 4.



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**MiTek**

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T24688902

Job Reference (optional)
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8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:14 2021 Page 1

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Scale = 1:28.1



Weight: 64 lb      FT = 20%

6904 Parke East Blvd.  
Tampa, FL 36610

Job 2871649	Truss T22	Truss Type Common	Qty 2	Ply 1	MIKE TODD CONST. - SANDIA	T24688903
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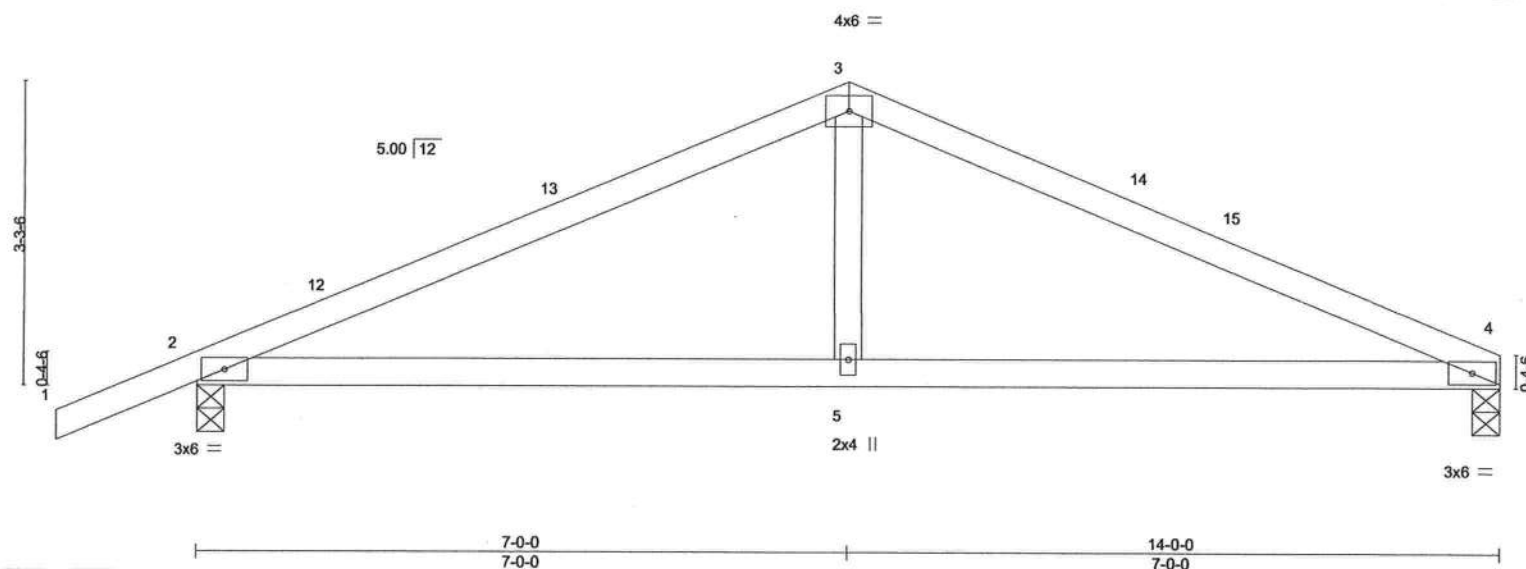
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:15 2021 Page 1

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Scale = 1:24.8



LOADING (psf)	SPACING-	CS.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.56	Vert(LL) -0.09	5-8	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.52	Vert(CT) -0.15	5-8	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS						
							Weight: 50 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-3-2 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 4=0-3-8, 2=0-3-8  
Max Horz 2=62(LC 12)  
Max Uplift 4=109(LC 13), 2=143(LC 12)  
Max Grav 4=514(LC 1), 2=603(LC 1)

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

TOP CHORD 2-3=-824/298, 3-4=-822/307  
BOT CHORD 2-5=-210/702, 4-5=-210/702  
WEBS 3-5=-6/319

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 7-0-0, Exterior(2R) 7-0-0 to 10-0-0, Interior(1) 10-0-0 to 14-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=109, 2=143.



Philip J. O'Regan PE No.58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15,2021

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

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



6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss T23	Truss Type Common Girder	Qty 1	Ply 2	MIKE TODD CONST. - SANDIA	T24688904
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:16 2021 Page 1

ID:s0XDStwXuSCluaklU6Qqbvyxus7-dU8dohDc\_2PhfHowzfXbdX9C3Ps3sEUje51vW2yxuM5

3-11-15	7-0-0	10-0-1	14-0-0
3-11-15	3-0-1	3-0-1	3-11-15

Scale = 1:22.4

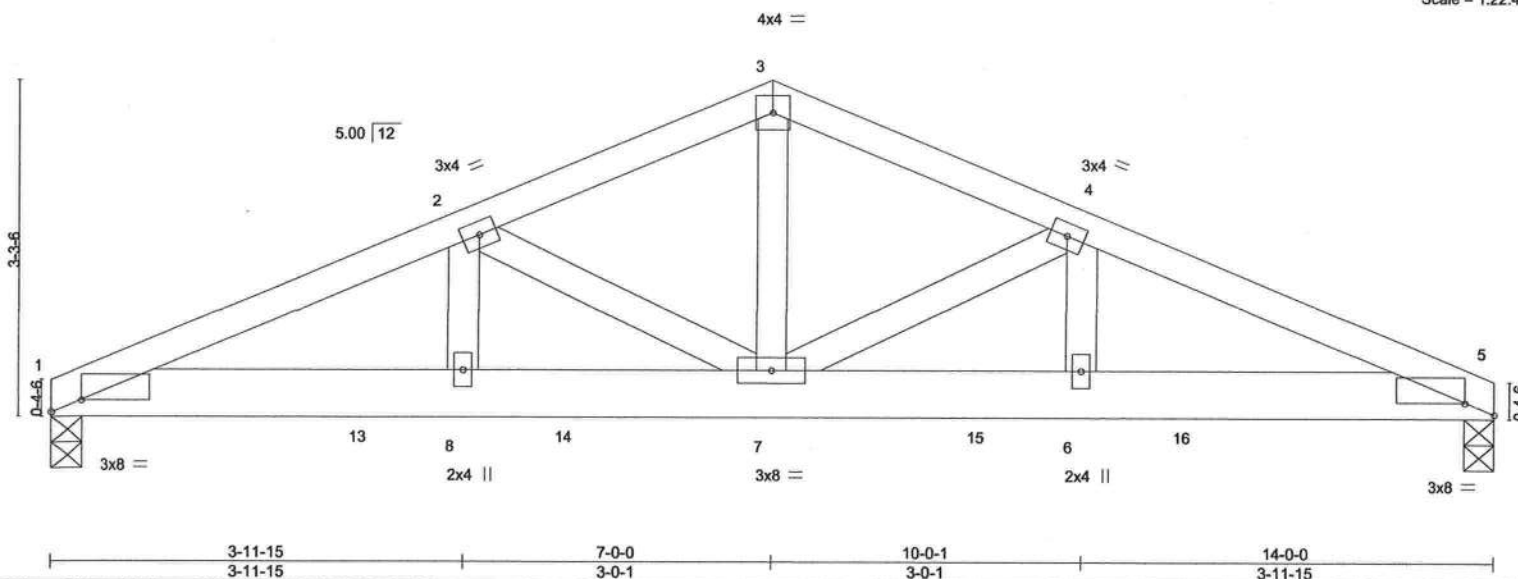


Plate Offsets (X,Y)-- [1:0-3-7,0-1-6], [5:0-3-7,0-1-6]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.32	Vert(LL)	-0.07	7	>999	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.77	Vert(CT)	-0.13	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.54	Horz(CT)	0.04	5	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 144 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-10 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS.

(size) 1=0-3-8, 5=0-3-8  
Max Horz 1=43(LC 9)  
Max Uplift 1=667(LC 8), 5=665(LC 9)  
Max Grav 1=2871(LC 1), 5=2887(LC 1)

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

TOP CHORD 1-2=5544/1280, 2-3=3927/908, 3-4=3927/908, 4-5=5544/1275  
BOT CHORD 1-8=1190/5112, 7-8=1190/5112, 6-7=1142/5114, 5-6=1142/5114  
WEBS 3-7=635/2820, 4-7=1729/451, 4-6=266/1249, 2-7=1727/455, 2-8=270/1252

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=667, 5=665.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 678 lb down and 175 lb up at 1-0-12, 678 lb down and 175 lb up at 3-0-12, 678 lb down and 175 lb up at 5-0-12, 672 lb down and 173 lb up at 7-0-12, 672 lb down and 170 lb up at 9-0-12, and 672 lb down and 173 lb up at 11-0-12, and 673 lb down and 169 lb up at 13-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25



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Tampa, FL 33610

Continued on page 2

Job	Truss	Truss Type	Qty	Ply	MIKE TODD CONST. - SANDIA	T24688904
2871649	T23	Common Girder	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:16 2021 Page 2  
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# **LOAD CASE(S)** Standard

Uniform Loads (plf)

Vert: 1-3=-54, 3-5=-54, 1-5=-20

Concentrated Loads (lb)

Vert: 7=-672(F) 10=-678(F) 12=-673(F) 13=-678(F) 14=-678(F) 15=-672(F) 16=-672(F)

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

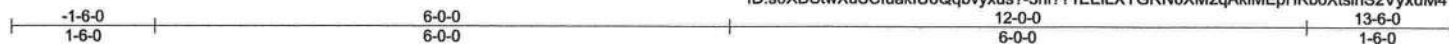
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



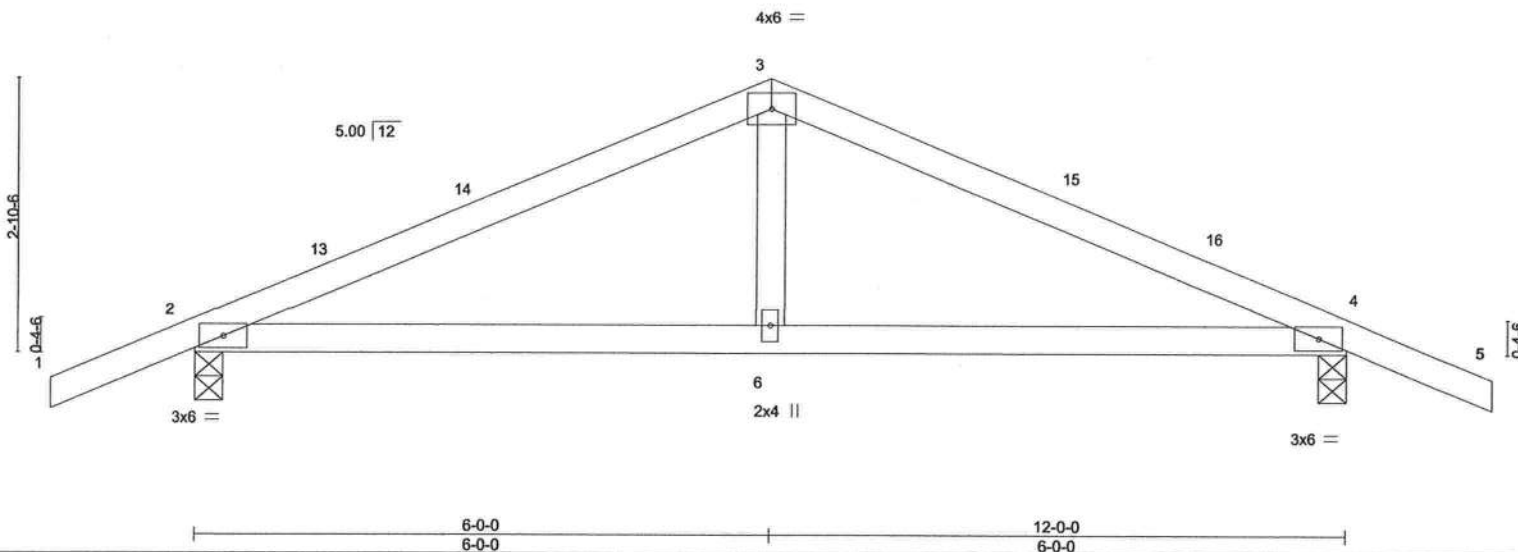
6904 Parke East Blvd.  
Tampa, FL 36610

Job 2871649	Truss T24	Truss Type Common	Qty 2	Ply 1	MIKE TODD CONST. - SANDIA	T24688905
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,						Job Reference (optional)

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:17 2021 Page 1  
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Scale: 1/2"=1'



LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.35	Vert(LL)	-0.04 6-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.38	Vert(CT)	-0.07 6-9	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT)	0.01 4	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS						
							Weight: 46 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

#### BRACING-

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

#### REACTIONS.

(size) 2=0-3-8, 4=0-3-8  
Max Horz 2=46(LC 12)  
Max Uplift 2=127(LC 12), 4=127(LC 13)  
Max Grav 2=525(LC 1), 4=525(LC 1)

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

TOP CHORD 2-3=-679/270, 3-4=-679/270  
BOT CHORD 2-6=-148/577, 4-6=-148/577  
WEBS 3-6=0/268

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 13-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=127, 4=127.



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6904 Parke East Blvd. Tampa FL 33610  
Date:

July 15,2021

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**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss T24G	Truss Type Common Supported Gable	Qty 1	Ply 1	MIKE TODD CONST. - SANDIA	T24688906
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055.

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:18 2021 Page 1

ID:s0XDStwXuSCLuakiU6Qqbvyxus?-ZtGODNFsWffPubyl53Z3iyEaUDhrKGZ05PW0axyxuM3

Job Reference (optional)



Scale = 1:24.8

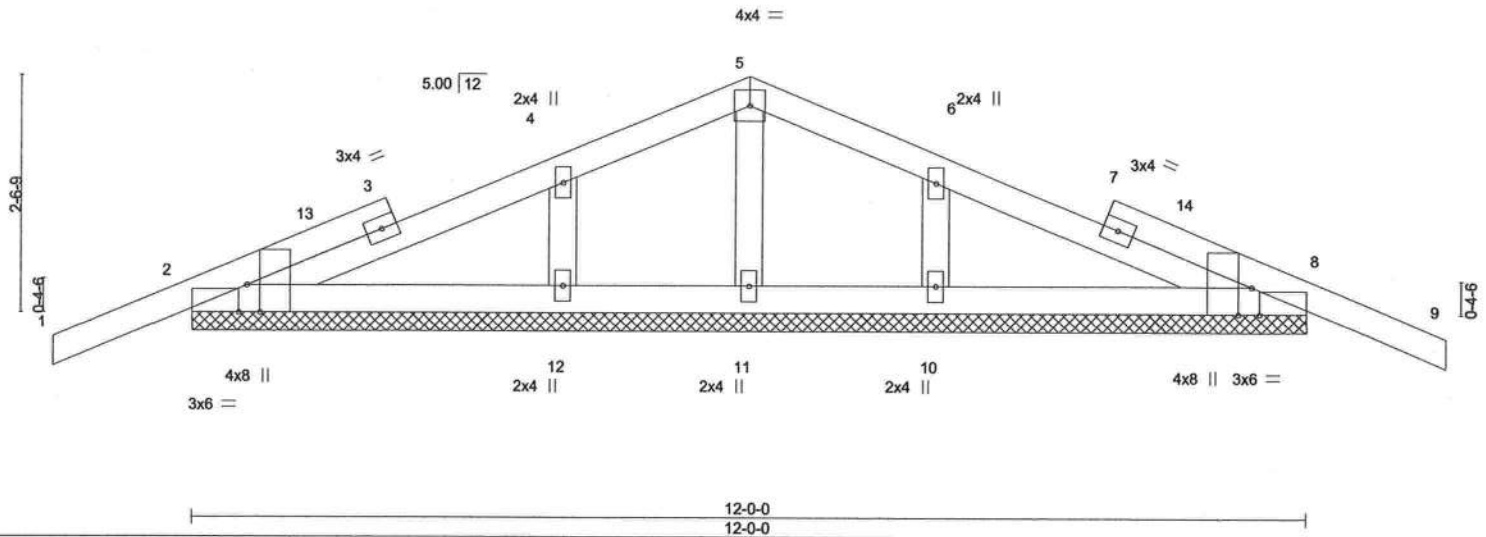


Plate Offsets (X,Y)~	[2:0-3-8,Edge], [2:0-1-1,Edge], [8:0-3-8,Edge], [8:0-1-1,Edge]								
<b>LOADING (psf)</b>	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.13	Vert(LL)	-0.00 9	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.10	Vert(CT)	-0.00 9	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00 8	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-S					Weight: 54 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3

#### BRACING-

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

#### REACTIONS.

All bearings 12-0-0.

(lb) - Max Horz 2=42(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 11, 12, 10

Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11 except 12=266(LC 23), 10=266(LC 24)

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

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 6-0-0, Corner(3R) 6-0-0 to 9-0-0, Exterior(2N) 9-0-0 to 13-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 11, 12, 10.



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Date:

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

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

**MiTek**

6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss T25	Truss Type Common	Qty 2	Ply 1	MIKE TODD CONST. - SANDIA	T24688907
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

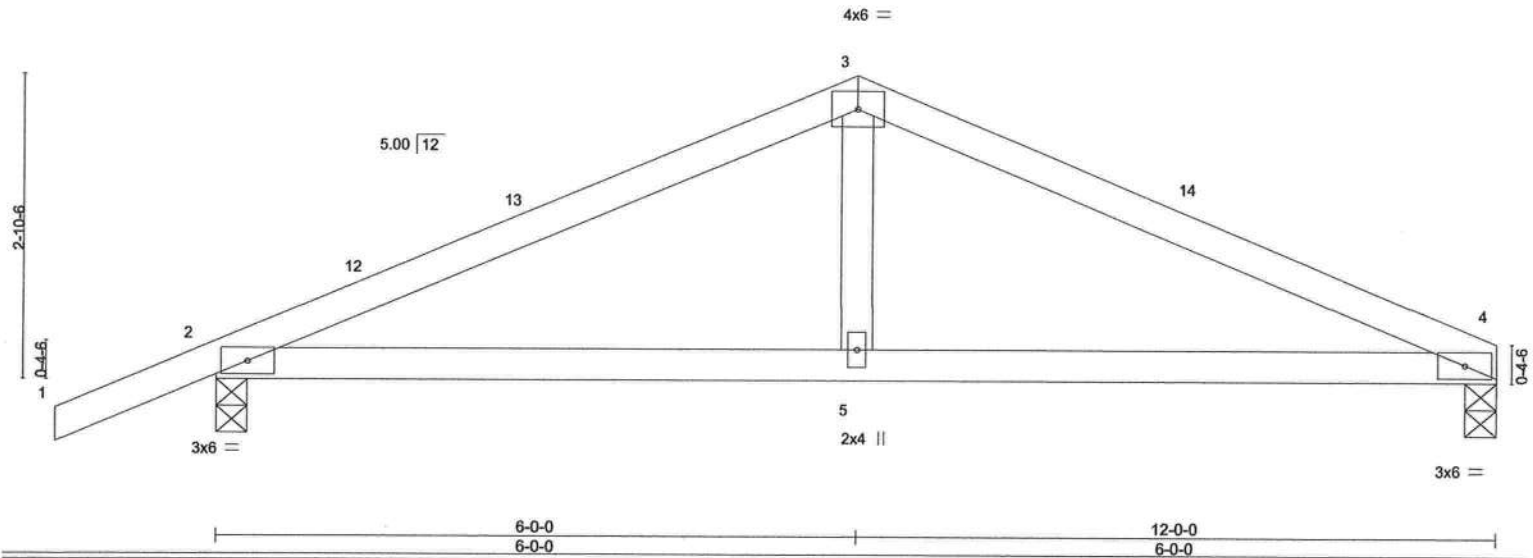
8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:19 2021 Page 1

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Job Reference (optional)



Scale = 1:21.6



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.38	Vert(LL)	-0.05	5-8	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.39	Vert(CT)	-0.09	5-8	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.10	Horz(CT)	0.01	4	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS							
									Weight: 43 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3

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

**REACTIONS.** (size) 4=0-3-8, 2=0-3-8  
Max Horz 2=56(LC 12)  
Max Uplift 4=93(LC 13), 2=128(LC 12)  
Max Grav 4=439(LC 1), 2=530(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-696/284, 3-4=-695/293  
BOT CHORD 2-5=-203/594, 4-5=-203/594  
WEBS 3-5=-10/271

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-0-0, Exterior(2R) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 12-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=128.



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**MiTek**

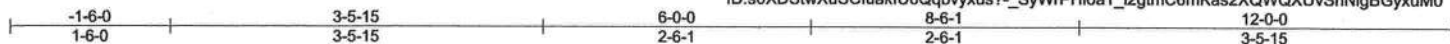
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2871649	Truss T26	Truss Type COMMON GIRDER	Qty 1	Ply 2	MIKE TODD CONST. - SANDIA	T24688908
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:21 2021 Page 1

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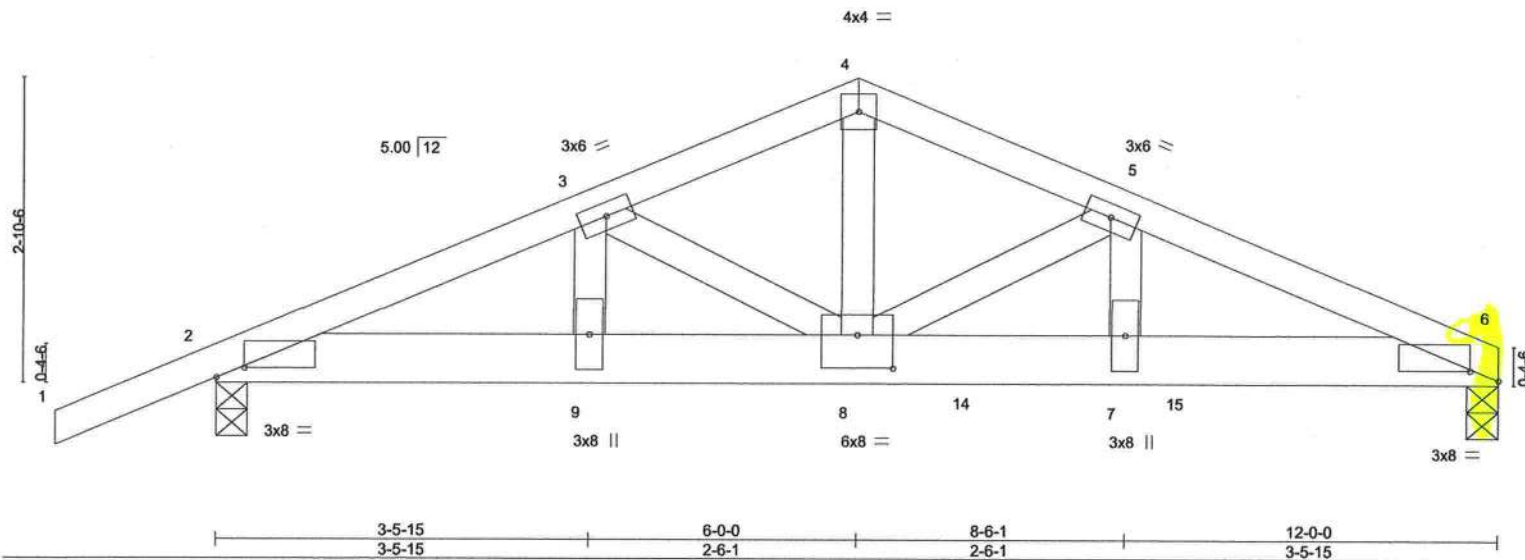


Plate Offsets (X,Y) - [2:0-3-2,0-1-1], [6:0-3-2,0-1-1], [8:0-4-0,0-3-12]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.25	TC 0.33	Vert(LL)	-0.06 7-8	>999	240
TCDL 7.0	Lumber DOL	1.25	BC 0.94	Vert(CT)	-0.12 7-8	>999	180
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.53	Horz(CT)	0.03 6	n/a	n/a
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS				
				<b>PLATES</b>		<b>GRIP</b>	
				MT20		244/190	
				Weight: 128 lb		FT = 20%	

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-8-15 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 6=0-3-8, 2=0-3-8  
 Max Horz 2=56(LC 27)  
 Max Uplift 6=728(LC 9), 2=398(LC 8)  
 Max Grav 6=3276(LC 1), 2=1702(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3666/813, 3-4=-3852/876, 4-5=-3850/872, 5-6=-6225/1405  
 BOT CHORD 2-9=-752/3363, 8-9=-752/3363, 7-8=-1267/5743, 6-7=-1267/5743  
 WEBS 4-8=-612/2757, 5-8=-2544/616, 5-7=-439/2029, 3-8=-228/339, 3-9=-282/136

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=4.2psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=728, 2=398.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2085 lb down and 499 lb up at 7-0-12, and 962 lb down and 235 lb up at 9-0-12, and 962 lb down and 212 lb up at 11-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-4=-54, 4-6=-54, 2-6=-20



Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

July 15,2021

Continued on page 2

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

**MiTek**  
 6904 Parke East Blvd.  
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Job 2871649	Truss T26	Truss Type COMMON GIRDER	Qty 1	Ply 2	MIKE TODD CONST. - SANDIA T24688908
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.430 s Jun 2 2021 MiTek Industries, Inc. Thu Jul 15 07:22:21 2021 Page 2  
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**LOAD CASE(S)** Standard  
Concentrated Loads (lb)  
Vert: 11=-962(B) 14=-2085(B) 15=-962(B)

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

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

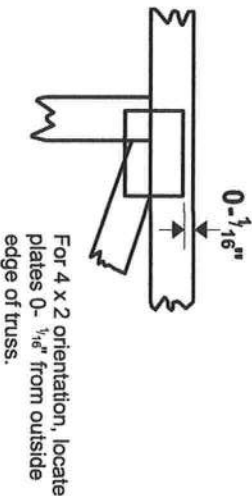
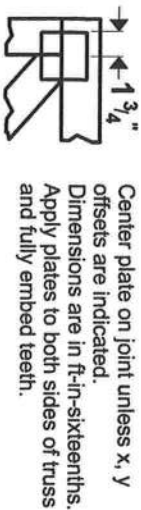
**Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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# Symbols

## PLATE LOCATION AND ORIENTATION



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

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

## PLATE SIZE

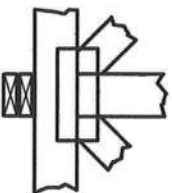
**4 X 4**

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

## LATERAL BRACING LOCATION

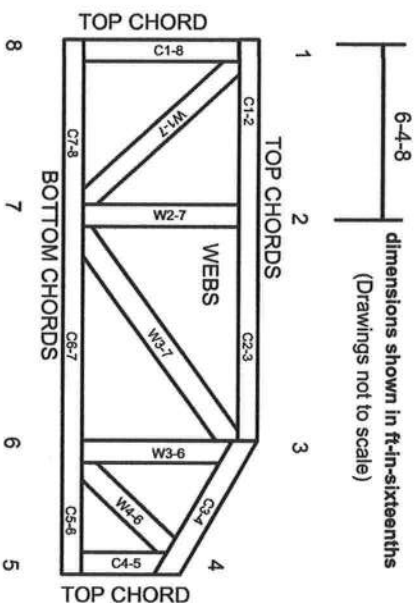


## BEARING



**Industry Standards:**  
ANSI/TPP11: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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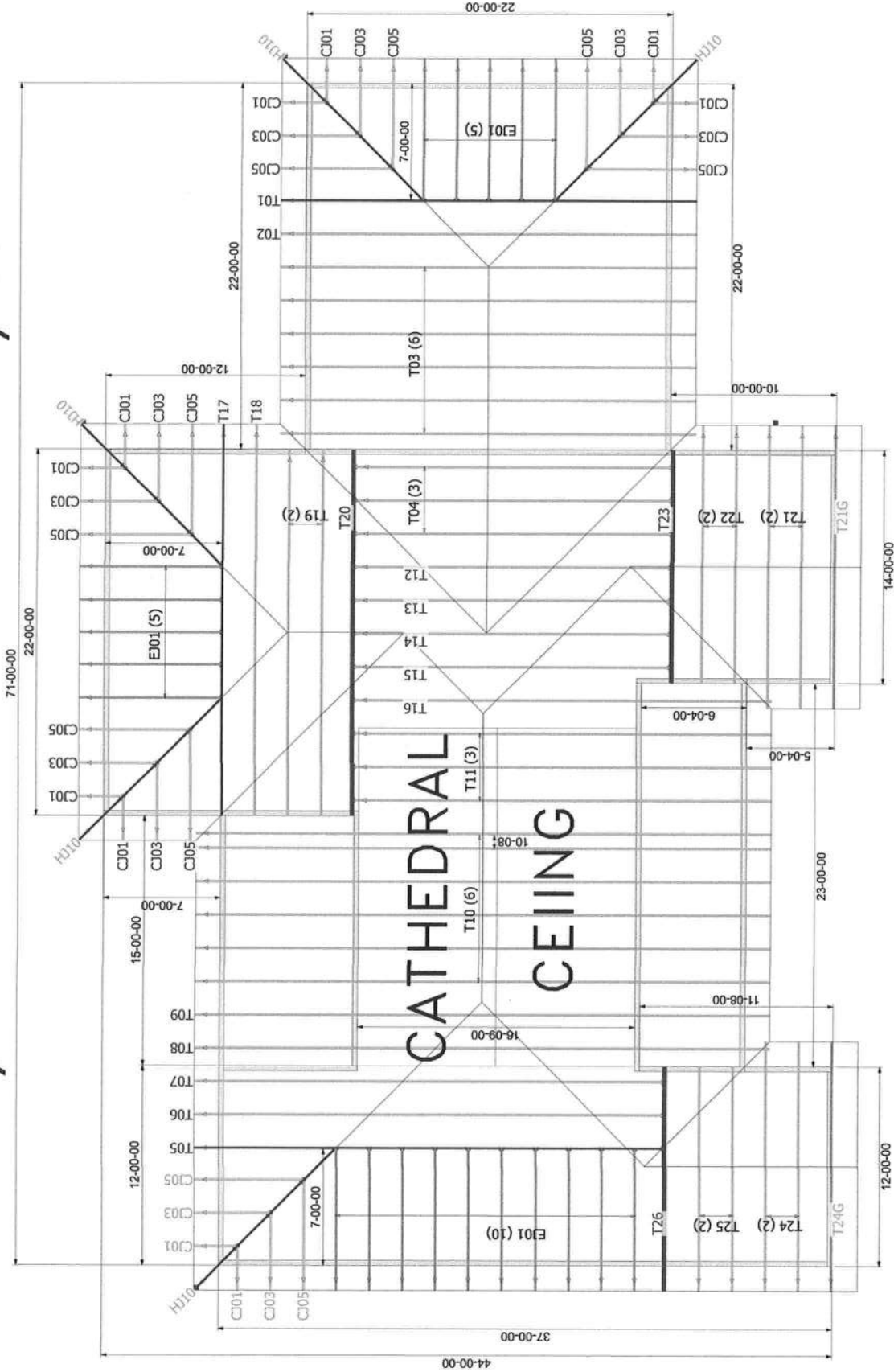
MITek Engineering Reference Sheet: MIL-7473 rev. 5/19/2020

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

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

# 5/12 PITCH - 18' O/H



THE ARROW HEAD AT THE  
END OF THE TRUSSES ON  
THIS PLAN INDICATES  
PLACEMENT OF THE  
CORRESPONDING WITH THE  
LEFT SIDE OF THE  
TRUSS. THE TRUSS IS  
ORIENTED TO THE  
DRAWING. USE THIS AS AN  
ORIENTATION GUIDE  
WHEN SETTING THE  
STRUCTURE.

## General Notes:

- Per ANSI/APA 1-2002 all "Truss to Wall" connections are the responsibility of the Building Designer, and the Truss Manufacturer.
- Trusses are to be 24" o.c. U.S.G.
- All trusses are to be Simpson or equivalent U.S.G.
- Trusses are not designed to support dead U.S.G.
- Dimensions are Feet-Inches-Sixteenths

## Notes:

- No back charges will be accepted by Builders FirstSource unless approved in writing first.
- Any ACQ lumber used in this truss system must be approved in writing first.
- Refer to BCSI B1 Support Span Guide for handling, installation and bracing of Metal Plate Connected Wood Trusses prior to and during truss installation.
- It is the responsibility of the Contractor to ensure the proper orientation of the truss placement plan as to the construction documents and field conditions of the truss system.
- It is the responsibility of the Contractor to ensure the placement of trusses are adjusted for plumbing drops, can lights, etc., so the trusses do not interfere with these items.

All common framed roof or floor systems must be designed by a structural engineer. The floor trusses have not been designed to carry any additional loads from above.

This truss placement plan was not created by an engineer, but rather by the Builders FirstSource staff and is only to be used as an installation guide and does not constitute a design. The truss design drawings which may be found on the truss design drawings which may be used by the truss design engineer.

Gables and trusses require continuous bottom chord bearing. Refer to local codes for wall framing requirements.

Although all attempts have been made to do so, trusses may not be perfectly symmetrical. Please refer to the truss design drawings for proper orientation and placement.



**Builders FirstSource**  
Lake City  
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PHONE: 904-772-6100  
FAX: 904-772-1973  
Tallahassee  
PHONE: 850-576-5177

Builder: **MIKE TODD CONST.**  
Legal Address: **Sandia Way**

Model:	Custom	Drawn By:	KLH	Original Ref #:	2871649
Date:	7-15-21	Drawn 2 Date:	N/A	Drawn 1 Date:	2871649