

Thornwood 21	Roof Loading TC Live: 20.00 psf TC Dead: 10.00 psf BC Live: 0.00 psf BC Dead: 10.00 psf Spacing: 2.00 O.C.  Client: DWC Contracting Date: 4/21/2021 Quote Date: / / Seal Date: / / Designer: Jason Degroff Job Number: 0421-071  Ph. (386) 294-3988 Fax (386) 294-3981 mayotruss@windstream.ne
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Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

RE: thornwood\_21 - Thornwood 21

MiTek USA, Inc.

6904 Parke East Blvd. Tampa, FL 33610-4115

Site Information:

Customer Info: DWC Project Name: . Model: .

Lot/Block: .

Subdivision: .

Address: ..

City: FT. White

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

Wind Code: N/A

Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.4

Wind Speed: 130 mph Floor Load: N/A psf

This package includes 44 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. 12345678910	Seal# T23698766 T23698767 T23698769 T23698770 T23698771 T23698772 T23698773 T23698775 T23698776	Truss Name A1GIR A2 A3 A4 A5 A6 A7 A8 A9 A10 A11	Date 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21	No. 23 24 25 26 27 28 29 30 31 32	Seal# T23698788 T23698789 T23698791 T23698792 T23698793 T23698794 T23698795 T23698796 T23698797	Truss Name C2 C3 C4 C5 CJ1 CJ2 CJ3 D1GE D2 D3	Date 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21
12 13 14 15 16 17 18 19 20 21 22	T23698777 T23698778 T23698779 T23698780 T23698781 T23698782 T23698783 T23698784 T23698785 T23698785 T23698786 T23698787	A12 A13 A14 A15 A16GE B1GIR B2 B3 B5 B6 C1GIR	4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21	33 34 35 36 37 38 39 40 41 42 43 44	T23698798 T23698799 T23698800 T23698801 T23698802 T23698803 T23698804 T23698806 T23698806 T23698807 T23698808 T23698808	D4 GIR2 J1 J1A J1B J2A J2B J3 J3A J3B J4 J4C	4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21 4/27/21



The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Mayo Truss Company, Inc..

Truss Design Engineer's Name: Velez, Joaquin 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.

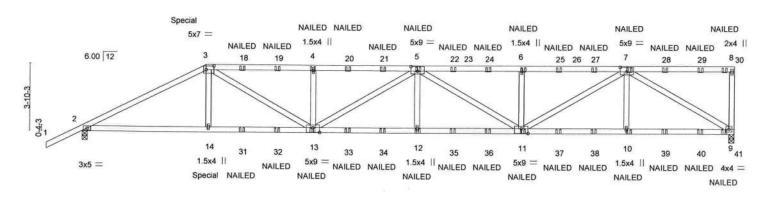
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Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

Job Truss Truss Type Qty Ply Thornwood 21 T23698766 THORNWOOD 21 A1GIR Half Hip Girder Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:16 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-8Q?IRRsZZTVz8CPpT4EiPRnnEHPQ3sk\_IAmdLIzNpqX 19-0-6 24-11-10 30-10-15 5-11-5

Scale = 1:65.7



-	7-0-0	13-1-1	19-0-6		24-11-10	30-10-15	37-0-0	
	7-0-0	6-1-1	5-11-5		5-11-5	5-11-5	6-1-1	
Plate Offsets (X,Y)	[3:0-5-4,0-2-8], [5:0-4-8,	0-3-0], [7:0-4-8,0	-3-0], [11:0-4-8,0-3-4], [13:	0-4-8,0-3-4]				
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 *	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr	2-0-0 1.25 1.25 NO	CSI. TC 0.84 BC 0.75 WB 0.94	DEFL. Vert(LL) Vert(CT) Horz(CT)	in (loc) -0.31 12 -0.63 12-13 0.17 9	I/defl L/d >999 240 >699 180 n/a n/a	1000000000	<b>GRIP</b> 244/190
BCDL 10.0	Code FBC2020/T	PI2014	Matrix-MS				Weight: 385 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\* 3-5: 2x4 SP No.1

**BOT CHORD** 2x4 SP No.2 \*Except\*

11-13: 2x4 SP No.1

WEBS 2x4 SP No.2

REACTIONS. (size) 9=0-3-8, 2=0-3-8

Max Horz 2=120(LC 24)

Max Uplift 9=-15(LC 8), 2=-19(LC 8)

Max Grav 9=3277(LC 1), 2=3016(LC 1)

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

2-3=-5885/0, 3-4=-7681/9, 4-5=-7681/9, 5-6=-7279/51, 6-7=-7279/51, 8-9=-400/89

**BOT CHORD** 2-14=0/5179, 13-14=0/5200, 12-13=0/8318, 11-12=0/8318, 10-11=-4/4585, 9-10=-4/4585 WEBS

3-14=0/663, 3-13=-65/2938, 4-13=-783/172, 5-13=-763/32, 5-12=0/484, 5-11=-1211/0,

6-11=-703/157, 7-11=0/3140, 7-10=0/524, 7-9=-5261/19

## NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc.

Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

Unbalanced roof live loads have been considered for this design.

- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) 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.

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

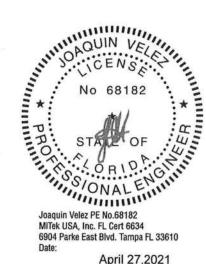
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 2.

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

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 227 lb down and 134 lb up at 7-0-0 on top chord, and 319 lb down at 7-0-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard Continued on page 2

> sters 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 properly 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



Structural wood sheathing directly applied or 3-9-1 oc purlins,

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

"Special" indicates special hanger(s) or other connection device(s) required at location(s) shown. The design/selection of such special connection device(s) is the responsibility of others. This applies to all applicable truss designs in this job.

except end verticals.

6904 Parke East Blvd. Tampa FL 33610

April 27,2021



Job	Truss	Truss Type	Qty	Ply	Thornwood 21	
THORNWOOD_21	A1GIR	Half Hip Girder	1	2		T23698766
Mayo Truss Company, Ir	nc., Mayo, FL - 32	066.			Job Reference (optional)	2021 Page 2

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:17 2021 Page 2  $ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-ccZ8entCKndpIM\_?1olxxeKyzhlfoJ\_7XqWBulzNpqW$ 

LOAD CASE(S) Standard

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

Vert: 1-3=-60, 3-8=-60, 9-15=-20

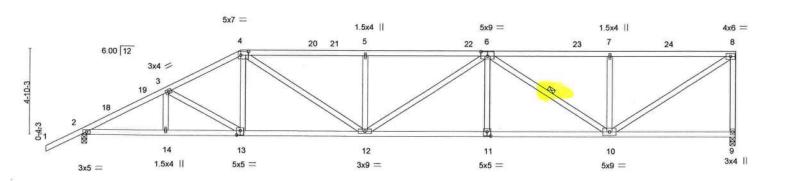
Concentrated Loads (lb)

Vert: 3=-180(F) 14=-319(F) 13=-59(F) 4=-121(F) 5=-121(F) 12=-59(F) 11=-59(F) 6=-121(F) 7=-121(F) 10=-59(F) 18=-121(F) 19=-121(F) 20=-121(F) 21=-121(F) 22=-121(F) 24=-121(F) 25=-121(F) 25=



Job Truss Truss Type Qty Ply Thornwood 21 T23698767 THORNWOOD 21 A2 Half Hip Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:18 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-4p7Ws6uq55lgNWZBaVGAUstBH55?Xt6HlUFkQBzNpqV 16-0-14 7-0-14 23-0-0 6-11-2 37-0-0 7-0-14 9-0-0

Scale = 1:65.7



		4-9-4 9-0-0	-3	16-0-14	1	23-0-0		3	29-1	1-2	37-0-0	
		4-9-4 4-2-12	1	7-0-14	1	6-11-2		1	6-1	1-2	7-0-14	
Plate Offse	ts (X,Y)	[4:0-5-4,0-2-8], [6:0-4-8,0	-3-0], [11:0-2-8	3,0-3-0], [13:0	0-2-8,0-3-0]							
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	0.62	Vert(LL)	-0.22	1100	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.74	Vert(CT)	-0.45	11-12	>973	180	LISTON COMPANY	
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.13	9	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matrix	x-AS						Weight: 204 lb	FT = 20%

LUMBER-

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

WEBS 2x4 SP No.2 BRACING-

TOP CHORD BOT CHORD WEBS

Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied. 1 Row at midpt

REACTIONS.

BOT CHORD

(size) 9=0-3-8, 2=0-3-8 Max Horz 2=150(LC 11)

Max Grav 9=1471(LC 1), 2=1597(LC 1)

Max Uplift 2=-49(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2849/65, 3-4=-2540/93, 4-5=-2991/118, 5-6=-2991/118, 6-7=-1889/86,

7-8=-1889/86, 8-9=-1403/83

2-14=-202/2494, 13-14=-202/2494, 12-13=-152/2226, 11-12=-113/2849, 10-11=-113/2849

3-13=-319/58, 4-13=0/366, 4-12=-19/994, 5-12=-449/107, 6-11=0/269, 6-10=-1148/37,

7-10=-446/106, 8-10=-61/2216

### NOTES-

**WEBS** 

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-8-6, Interior(1) 1-8-6 to 9-0-0, Exterior(2R) 9-0-0 to 14-2-13, Interior(1) 14-2-13 to 36-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.

6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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

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



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

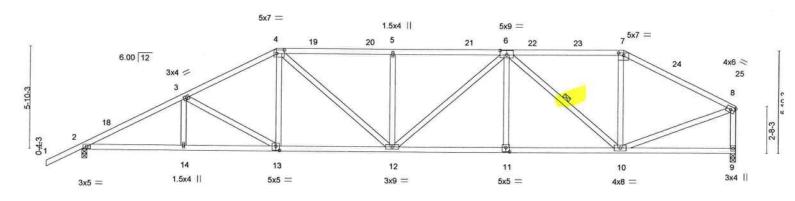
April 27,2021

MARNING - 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 MTReks connectors. This design is based only upon parameters and report of the 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 \*\*ANS/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Job	Truss		Truss Type	Qty	Ply	Thornwood 21		Mary Mary State St
THORNWOOD_21	A3		Hip	1	1			T23698768
Mayo Truss Company	y, Inc., Mayo, F	L - 32066.			8 430 e M	Job Reference (optional) lar 22 2021 MiTek Industries	Inc. Eri Apr 22 12:27:20	0 2021 Page 1
-2-0-0	5-9-4	11-0-0	17-7-4	ID:IYcROPhxk		NuJ1qzOXII-0BEGHov4di?C 30-8-0		
2-0-0	5-9-4	5-2-12	6-7-4	6-5-8		6-7-4	6-4-0	

Scale = 1:65.7



-		11-0-0	17-7-4		24-0	-12			30-8-0	37-0-0	
Diete Offente (V V)		5-2-12		7-4	6-5	-8			6-7-4	6-4-0	
Plate Offsets (X,Y)	[4:0-5-4,0-2-8], [6:0-4-8,0	)-3-0], [7:0-3-8,	0-1-12], [11:0	-2-8,0-3-0], [	13:0-2-8,0-3-0]						
LOADING (psf) TCLL 20.0 TCDL 10.0 BCLL 0.0 BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code FBC2020/T	2-0-0 1.25 1.25 YES PI2014	CSI. TC BC WB Matrix	0.45 0.61 0.38 -AS	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.16 -0.33 0.11	12	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 210 lb	<b>GRIP</b> 244/190 FT = 20%

TOP CHORD

BOT CHORD

WEBS

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

2x4 SP No.2

REACTIONS. (size) 2=0-3-8, 9=0-3-8

Max Horz 2=143(LC 11) Max Uplift 2=-50(LC 12)

Max Grav 2=1597(LC 1), 9=1471(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2825/101, 3-4=-2384/121, 4-5=-2480/136, 5-6=-2480/136, 6-7=-1423/115,

7-8=-1664/95, 8-9=-1409/95

**BOT CHORD WEBS** 

2-14=-136/2467, 13-14=-136/2467, 12-13=-79/2067, 11-12=-79/2258, 10-11=-79/2258, 3-13=-462/65, 4-13=0/413, 4-12=-18/647, 5-12=-414/100, 6-12=-10/320, 6-11=0/252,

6-10=-1148/34, 7-10=0/410, 8-10=-31/1440

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=37ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-8-6, Interior(1) 1-8-6 to 11-0-0, Exterior(2R) 11-0-0 to 16-2-13, Interior(1) 16-2-13 to 30-8-0, Exterior(2R) 30-8-0 to 35-10-13, Interior(1) 35-10-13 to 36-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) 2.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

6-10

Rigid ceiling directly applied.

1 Row at midpt

Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

🛦 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 show and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property 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

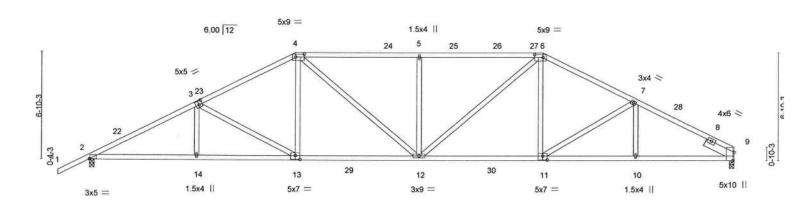
\*\*ARSUTP11 Quality Criteria, DSB-89 and BCSI Building Comp Safety Information\*\*

available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Job Truss Truss Type Qty Ply Thornwood 21 T23698769 THORNWOOD\_21 Hip Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:22 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-yaM1hUxK8JF6s7tzpLL6ei1neiPBTfVtg6DyZyzNpqR 2-0-0 20-10-0 13-0-0 40-8-0

Scale = 1:73.2



	1	6-9-4 13-0-0		20-10-0		- 1	28-8-0		1	34-6-4		40-8-0	
		6-9-4	6-2-12	1	7-10-0		7-10	0-0	- 1	5-10-4	6-1-1	2	
Plate Offse	ets (X,Y)	[2:0-0-4,0-0-0], [3:0-2-8,0	)-3-0], [4:0-6-8,0	0-2-4], [6:0-6-	8,0-2-4], [9:0	)-6-4,Edge], [11:0	-3-8,0-3	-0], [13:	0-3-8,0-3	3-0]			
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.91	Vert(LL)	-0.30		>999	240	MT20	244/190	
TCDL	10.0	Lumber DOL	1.25	BC	0.92	Vert(CT)	-0.56		>876	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.60	Horz(CT)	0.19	9	n/a	n/a			
BCDL	10.0	Code FBC2020/T	PI2014	Matrix	-AS	E20052000				1410000	Weight: 220 lb	FT = 20%	

BRACING-

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*

6-9: 2x4 SP No.1

**BOT CHORD** 2x4 SP No.2 \*Except\*

9-11: 2x4 SP No.1 2x4 SP No.2

WEBS

SLIDER Right 2x6 SP No.2 -t 2-0-0

REACTIONS.

(size) 9=0-3-8, 2=0-3-8

Max Horz 2=128(LC 11) Max Uplift 2=-50(LC 12)

Max Grav 9=1838(LC 18), 2=1955(LC 17)

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

TOP CHORD 2-3=-3508/128, 3-4=-2889/151, 4-5=-2877/175, 5-6=-2877/175, 6-7=-2745/154,

7-9=-3032/128

**BOT CHORD** 2-14=-72/3157, 13-14=-74/3151, 12-13=-5/2566, 11-12=0/2392, 10-11=-55/2609,

9-10=-55/2609

WEBS 3-14=0/252, 3-13=-673/79, 4-13=0/623, 4-12=-22/609, 5-12=-522/121, 6-12=-21/716,

6-11=0/459, 7-11=-262/73

## 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=41ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-0-13, Interior(1) 2-0-13 to 13-0-0, Exterior(2R) 13-0-0 to 18-9-0, Interior(1) 18-9-0 to 28-8-0, Exterior(2R) 28-8-0 to 34-6-4, Interior(1) 34-6-4 to 40-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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, with BCDL = 10.0psf.

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

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

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Joaquin Velez PE No.68182

MITEK USA, Inc. FI Co.

6904 Parke East Blvd. Tampa FL 33610

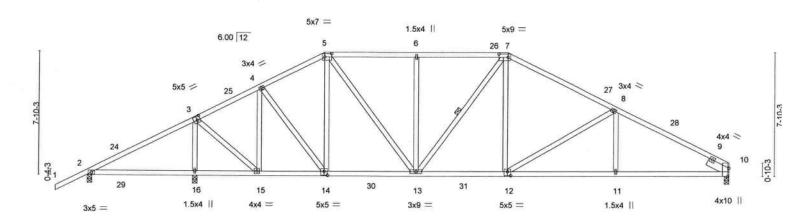
April 27,2021

🛦 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE MAKINING - Verity design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MITERS IN THIS CAUSE DEFORM OF THE VERY AND INCLUDED MITER REFERENCE PAGE MITERS IN THIS CAUSE OF THE VERY AND INCLUDED MITER REFERENCE PAGE MITERS IN THIS CAUSE OF THE VERY AND INCLUDED MITER REFERENCE PAGE MITERS IN THIS CAUSE OF THE VERY AND INCLUDED MITERS AND INCLUDED



Job Truss Truss Type Qty Ply Thornwood 21 T23698770 THORNWOOD 21 A5 Hip Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8,430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:23 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-RmwPvqxyvdNzTHS9N2sLBvayd6o7C6T0vmzV5OzNpqQ 20-10-0 40-8-0 5-10-0 5-10-0 6-10-4

Scale = 1:73.3



	1	6-9-12	10-10-14	15-0-0	20-10-0		26-8-0	1		33-6-4	40-8-0	
		6-9-12	4-1-2	4-1-2	5-10-0		5-10-0			6-10-4	7-1-12	
Plate Offse	ets (X,Y)	[3:0-2-4,0-3-0], [5:0-5-4	-6-4,Edge], [12:0	0-2-8,0-3-0], [14	4:0-2-8,0	0-3-0]						
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.90	Vert(LL)		16-23	>836	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.74	Vert(CT)	-0.30	11-12	>999	180	3313.000	00000000000000000000000000000000000000
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.62	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code FBC2020/	TPI2014	Matri	x-AS	,					Weight: 240 lb	FT = 20%

**BRACING-**

WEBS

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

1 Row at midpt

LUMBER-

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

2x4 SP No.2 \*Except\* 10-12: 2x4 SP No.1

WEBS 2x4 SP No.2

SLIDER

Right 2x6 SP No.2 -t 1-6-0

REACTIONS.

10=0-3-8, 2=0-3-8, 16=0-3-8 Max Horz 2=146(LC 11)

Max Uplift 10=-1(LC 12), 2=-123(LC 22), 16=-42(LC 12) Max Grav 10=1473(LC 18), 2=141(LC 21), 16=2247(LC 17)

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

2-3=0/842, 3-4=-730/96, 4-5=-1186/137, 5-6=-1509/157, 6-7=-1509/157, 7-8=-1849/144,

8-10=-2356/112

2-16=-696/11, 15-16=-651/9, 14-15=0/648, 13-14=0/1062, 12-13=0/1545,

11-12=-37/2015, 10-11=-37/2015

3-16=-2038/86, 3-15=0/1579, 4-15=-948/52, 4-14=0/736, 5-14=-407/50, 5-13=-28/804,

6-13=-383/93, 7-12=0/561, 8-12=-547/80

## NOTES-

**WEBS** 

**BOT CHORD** 

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=41ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-0-13, Interior(1) 2-0-13 to 15-0-0, Exterior(2R) 15-0-0 to 20-10-0, Interior(1) 20-10-0 to 26-8-0, Exterior(2R) 26-8-0 to 32-5-0, Interior(1) 32-5-0 to 40-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 10, 16 except (jt=lb) 2=123.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

WARNING - Venify 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

\*\*ANSITTPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\*

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



Job Truss Truss Type Qty Ply Thornwood 21 T23698771 THORNWOOD\_21 A6 Hip Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:26 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-rLcXXs\_rCYIYLIAk2BP2pYCTIJmqPSJSbjB9ijzNpqN 11-10-14 24-8-0 34-10-4 40-8-0

7-8-0

Scale = 1:73.1

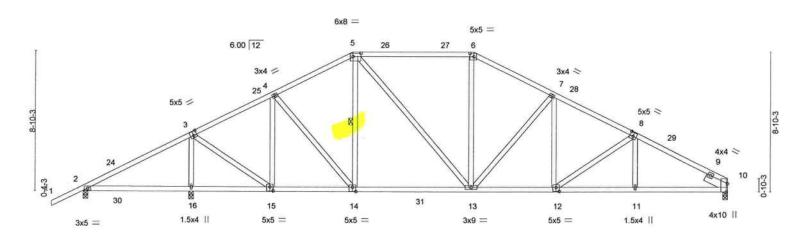
5-9-12

5-1-2

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

1 Row at midpt



	6	6-9-12	11-10-14	17-0-0	i i	24-8-0		2	9-9-2	34-	10-4	0-8-0
		6-9-12	5-1-2	5-1-2		7-8-0			5-1-2	5-	1-2 5	-9-12
Plate Off	te Offsets (X,Y) [3:0-2-8,0-3-4], [5:0-6-0,0-2-8], [6:0-3-0,0-2-8], [8:0-2-8,0-3-0]			-8,0-3-0], [10	0:0-6-4,Edge], [12:	0-2-8,0	-3-0], [1	4:0-2-8,0	-3-4], [15:0-2	-8,0-3-0]		
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.91	Vert(LL)		16-19	>810	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	1.00	Vert(CT)	-0.31	13-14	>999	180	1.000000000	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.68	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code FBC2020/7	PI2014	Matrix	k-AS	,					Weight: 241	lb FT = 20%

**BRACING-**

WEBS

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

SLIDER Right 2x6 SP No.2 -t 1-6-0

right End of Holz (1-0-0

(size) 2=0-3-8, 16=0-3-8, 10=0-3-8

Max Horz 2=164(LC 11)

Max Uplift 2=-123(LC 12), 16=-42(LC 12), 10=-1(LC 12) Max Grav 2=169(LC 21), 16=2223(LC 17), 10=1464(LC 18)

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

TOP CHORD 2-3=0/812, 3-4=-895/104, 4-5=-1289/152, 5-6=-1418/170, 6-7=-1626/161,

7-8=-2045/137, 8-10=-2332/108

BOT CHORD 2-16=-670/4, 15-16=-627/2, 14-15=0/820, 13-14=0/1143, 12-13=-7/1762,

11-12=-38/1990, 10-11=-37/1992

WEBS 3-16=-2007/100, 3-15=0/1604, 4-15=-809/62, 4-14=0/572, 5-13=-21/482, 6-13=0/366,

5-1-2

5-1-2

7-13=-623/77, 7-12=0/344, 8-12=-270/56

### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=41ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-0-13, Interior(1) 2-0-13 to 17-0-0, Exterior(2R) 17-0-0 to 22-9-0, Interior(1) 22-9-0 to 24-8-0, Exterior(2R) 24-8-0 to 30-5-0, Interior(1) 30-5-0 to 40-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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.

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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 16, 10 except (jt=lb) 2=123.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

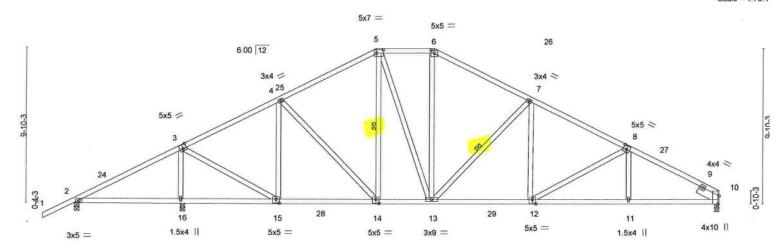
Design valid for use only with MTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property incorporate this design into the overall 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 20801



Job Truss Truss Type Qty Ply Thornwood 21 T23698772 THORNWOOD\_21 A7 Hip Job Reference (optional) Mayo Truss Company, Inc., 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:29 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-FwHgAt0jVT76CCvJkJzIQAq\_5WrAcsVuHhQpJ2zNpqK Mayo. FL - 32066. 22-8-0 3-8-0 6-1-13 6-1-13

Scale = 1:73.1



	L	6-9-12 12-10-3		19-0-0	22-8-0 28-9-2			34-10	-4 , 40	0-8-0
		6-9-12	6-0-7	6-1-13	3-8-0	6-1-2		6-1-2	2 5-	9-12
Plate Off	sets (X,Y)	[3:0-2-8,0-3-4], [5:0-5-4,0	-2-8], [6:0-2-8,0	-2-4], [8:0-2-8,0-3-0], [10	:0-6-4,Edge], [12	:0-2-8,0-3-4], [1	4:0-2-8,0-	3-0], [15:0-2	-8,0-3-0]	
LOADIN	G (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.90	Vert(LL)	-0.14 12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC 0.77	Vert(CT)	-0.27 11-12	>999	180	7,000,130,000	
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.08 10	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matrix-AS	2 0				Weight: 250	b FT = 20%

**BRACING-**

**WEBS** 

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

5-14, 7-13

Rigid ceiling directly applied.

1 Row at midpt

LUMBER-

TOP CHORD 2x4 SP No.2

BOT CHORD

2x4 SP No.2 \*Except\* 10-12: 2x4 SP No.1

WEBS 2x4 SP No.2

SLIDER

Right 2x6 SP No.2 -t 1-6-0

REACTIONS.

(size) 2=0-3-8, 16=0-3-8, 10=0-3-8

Max Horz 2=183(LC 11) Max Uplift 2=-78(LC 22)

Max Grav 2=187(LC 21), 16=2260(LC 17), 10=1483(LC 18)

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

TOP CHORD 2-3=-19/778, 3-4=-1109/106, 4-5=-1330/161, 5-6=-1254/173, 6-7=-1464/165,

7-8=-2044/129, 8-10=-2376/102 BOT CHORD 2-16=-631/48, 15-16=-588/45, 14

2-16=-631/48, 15-16=-588/45, 14-15=0/1004, 13-14=0/1149, 12-13=0/1756,

11-12=-35/2032, 10-11=-33/2034

3-16=-2001/121, 3-15=-6/1672, 4-15=-628/81, 4-14=0/318, 5-13=-25/409, 6-13=-3/398,

7-13=-824/83, 7-12=0/452, 8-12=-312/61

### NOTES-

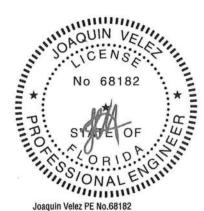
WEBS

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=41ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-0-13, Interior(1) 2-0-13 to 19-0-0, Exterior(2E) 19-0-0 to 22-8-0, Exterior(2R) 22-8-0 to 28-5-0, Interior(1) 28-5-0 to 40-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.

- 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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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



Job Truss Truss Type Qty Ply Thornwood 21 T23698773 THORNWOOD 21 A8 Common Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066. 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:33 2021 Page 1  $ID: IYcROPhxkNgTW0wPzNuJ1qzOXII-8hXB?F3EZieYgqD4z91hb0\_gp8BxYgIUCJO1SpzNpqG\\$ 13-9-14 7-0-2 27-10-2 7-0-2 7-0-2 7-0-2 5-9-12 Scale = 1:70.9 5x5 = 6.00 12 3x4 = 3x4 > 5x7 / 5x5 > 7 8 28 13 12 11 10

20-10-0 27-10-2 34-10-4 40-8-0 Plate Offsets (X,Y)--[3:0-3-8,0-3-0], [7:0-2-8,0-3-0], [9:0-6-4,Edge], [11:0-3-8,0-3-0], [13:0-2-8,0-3-0]

5x5 =

LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defi	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.92	Vert(LL)	0.11	14-17	>776	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	ВС	0.78	Vert(CT)	-0.31	10-11	>999	180	100000000000000000000000000000000000000	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.08	9	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matri	x-AS						Weight: 230 lb	FT = 20%

3x9 =

BRACING-

TOP CHORD

**BOT CHORD** 

**WEBS** 

5x7 =

Structural wood sheathing directly applied.

4-12, 6-12

Rigid ceiling directly applied

1 Row at midpt

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD

3x5 =

2x4 SP No.2 \*Except\*

9-11: 2x4 SP No.1

WEBS 2x4 SP No.2

SLIDER Right 2x6 SP No.2 -t 1-6-0

REACTIONS. (size) 2=0-3-8, 14=0-3-8, 9=0-3-8

Max Horz 2=199(LC 11)

Max Uplift 2=-118(LC 12), 14=-48(LC 12)

Max Grav 2=199(LC 21), 14=2243(LC 17), 9=1480(LC 18)

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

1.5x4 ||

TOP CHORD 2-3=0/809, 3-4=-1196/110, 4-5=-1333/171, 5-6=-1315/173, 6-7=-1976/132,

7-9=-2383/103 **BOT CHORD** 

2-14=-666/10, 13-14=-622/8, 12-13=0/1075, 11-12=0/1681, 10-11=-36/2040,

9-10=-34/2043

**WEBS** 3-14=-2016/113, 3-13=0/1728, 4-13=-557/85, 5-12=-15/780, 6-12=-909/90, 6-11=0/494,

### NOTES.

Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=41ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-0-13, Interior(1) 2-0-13 to 20-10-0, Exterior(2R) 20-10-0 to 24-10-13, Interior(1) 24-10-13 to 40-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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) 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, with BCDL = 10.0psf.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14 except (jt=lb)

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

No 6818

No 6818

No 6818

No 6818

No 6818

No 68182 SOAQUIN VEX 68182

4x10 ||

1.5x4 II

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

April 27,2021

🔼 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

\*\*ANSITIFI Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\*

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



Job Truss Truss Type Qty Ply Thornwood 21 T23698774 THORNWOOD\_21 Common Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:36 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-YGCJeG56rd07XHxfeHbODecHrLH2l1GwuHch28zNpqD Mayo Truss Company, Inc., Mayo, FL - 32066. 13-9-14 7-0-2 27-10-2 7-0-2 5-10-2 7-0-2 7-11-12 2-0-0

Scale = 1:73.2

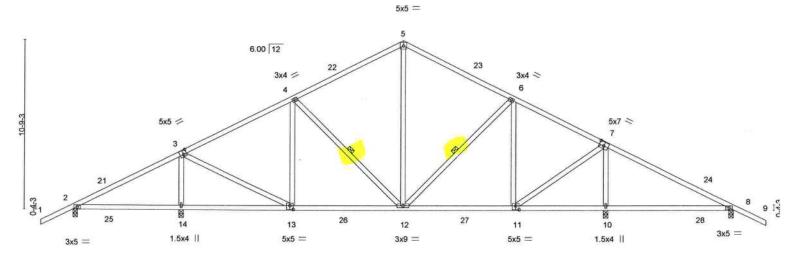


Plate Off	sets (X,Y)	6-9-12 [3:0-2-4,0-3-4], [7:0-3-8,0	7-0-2 )-3-0], [11:0-2-8	7-0-2 3,0-3-0], [13:0-2-8,0-3		7-0-2		5-10-2	7-11-12	
LOADIN	G (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.55	Vert(LL)	0.19 10-20	>496	240	MT20	244/190
CDL	10.0	Lumber DOL	1.25	BC 0.56	Vert(CT)	-0.23 10-20	>417	180	Tan a company	
CLL	0.0 *	Rep Stress Incr	YES	WB 0.39	Horz(CT)	0.02 10	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matrix-AS					Weight: 233 lb	FT = 20%

20-10-0

LUMBER-

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.2 **BRACING-**

TOP CHORD **BOT CHORD WEBS** 

27-10-2

Structural wood sheathing directly applied.

33-8-4

Rigid ceiling directly applied.

1 Row at midpt 4-12, 6-12

REACTIONS. All bearings 0-3-8.

(lb) - Max Horz 2=-211(LC 10)

6-9-12

Max Uplift All uplift 100 lb or less at joint(s) 14, 10 except 2=-128(LC 12), 8=-138(LC 12)

13-9-14

Max Grav All reactions 250 lb or less at joint(s) except 2=343(LC 21), 14=1626(LC 17), 10=1629(LC 18), 8=398(LC

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

2-3=-73/274, 3-4=-1045/115, 4-5=-935/170, 5-6=-910/172, 6-7=-909/123 BOT CHORD

12-13=0/952, 11-12=0/750 WEBS

3-14=-1404/89, 3-13=0/1061, 4-13=-276/74, 5-12=-11/404, 6-11=-381/61, 7-11=0/989,

7-10=-1404/66

# 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-2-0, Interior(1) 2-2-0 to 20-10-0, Exterior(2R) 20-10-0 to 25-0-0, Interior(1) 25-0-0 to 43-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; 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) 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 10 except (jt=lb) 2=128, 8=138.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



41-8-0

Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

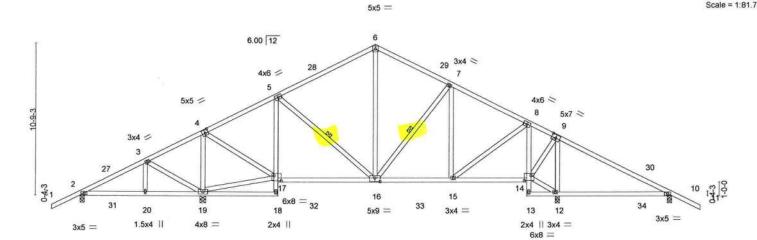
April 27,2021

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ANSITPH Quality Criteria, DSB-89 and BCSI Building Compo



Job	Truss		Truss Type		Qty	Ply	Thornwo	od 21			T00000775
THORNWOOD_21	A10		Roof Special		1	1		50 Y407			T23698775
	1.00						Job Refer	ence (option	ial)		
Mayo Truss Company,	Inc., Ma	yo, FL - 32066,				8.430 s N	Mar 22 2021	MiTek Indus	stries, Inc. Fri Apr 2:	3 13:36:58 202	Page 1
					ID:IYcROPhxk	NgTW0wPzl	NuJ1qzOXII	fzvyfHeHoxl	DW R1LPlvUge2m0	G1Kwrr9K9NPg	jLzNpqp
1-2-0-0	4-7-2	8-7-12	13-11-8	20-10-0	26-2-4	. 31	1-6-8	33-8-4	41-8-0	43-8-0	
2-0-0	4-7-2	4-0-10	5-3-12	6-10-8	5.4.4	5	-4-4	2-1-12	7-11-12	2-0-0	



	1	4-7-2 8-7-12	13-11-8		20-10-0	26-2-4	- 1	31	-6-8	33-8-4	41-8-0	3
		4-7-2 4-0-10	5-3-12		6-10-8	5-4-4		5-	4-4	2-1-12	7-11-12	
Plate Offse	ets (X,Y)	[4:0-2-8,0-3-0], [9:0-3-8	,0-3-0], [14:0-5-8	,0-4-4], [16	:0-4-8,0-3-0], [1	7:0-6-4,0-4-4]						
LOADING	(psf)	SPACING-	2-0-0	CSI		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	0.16	12-26	>595	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.51	Vert(CT)	-0.20	12-26	>467	180		
BCLL	0.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.03	12	n/a	n/a		
BCDL	10.0	Code FBC2020/	TPI2014	Mat	rix-AS	HELDHIOVE OF BOARD OF					Weight: 259 lb	FT = 20%

LUMBER-

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

**WEBS** 2x4 SP No.2 BRACING-

TOP CHORD **BOT CHORD** WEBS

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

1 Row at midpt 5-16, 7-16

REACTIONS. All bearings 0-3-8 except (jt=length) 19=0-4-15.

(lb) - Max Horz 2=-211(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 19, 12 except 2=-131(LC 12), 10=-143(LC 12)

Max Grav All reactions 250 lb or less at joint(s) except 2=317(LC 21), 10=326(LC 22), 19=1737(LC 17), 12=1607(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 3-4=-36/553, 4-5=-714/56, 5-6=-795/133, 6-7=-753/140, 7-8=-851/104, 8-9=-309/92,

9-10=0/374

5-17=-432/109, 16-17=0/694, 15-16=0/716, 8-14=-648/0

BOT CHORD **WEBS** 

3-19=-391/279, 4-19=-1340/74, 17-19=-333/146, 4-17=0/1098, 6-16=-9/337, 8-15=0/611,

9-14=0/704, 9-12=-1228/0

### NOTES-

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-2-0, Interior(1) 2-2-0 to 20-10-0, Exterior(2R) 20-10-0 to 25-0-0, Interior(1) 25-0-0 to 43-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; 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) 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, with BCDL = 10.0psf.

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 12 except (jt=lb) 2=131, 10=143.

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



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

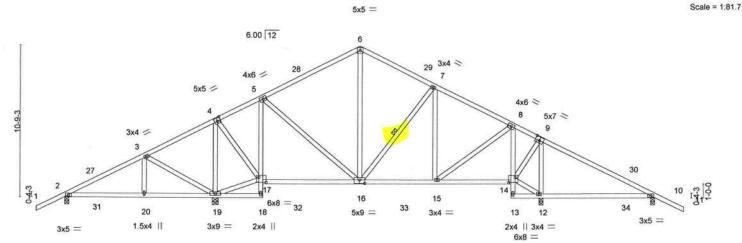
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\*\*ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job Truss Type Qty Thornwood 21 Ply T23698776 THORNWOOD\_21 A11 Roof Special Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:01 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-4Xb5Hig95sc5rvmw5RSBIGfHZELh295nrKeKJgzNpqm 20-10-0 6-10-8 33-8-4 43-8-0 31-6-8 41-8-0 5-0-10



	+		)-7-12	13-11-8	20-10-0	26-2-4	-		-6-8	33-8-4	41-8-0	4
	- 1	5-7-2 5	-0-10	3-3-12	6-10-8	5-4-4		5-	4-4	2-1-12	7-11-12	*
Plate Offse	ets (X,Y)	[4:0-2-8,0-3-0], [9:0-3-8	,0-3-0], [1	1:0-5-8,0-4-4], [1	6:0-4-8,0-3-0], [1	17:0-6-4,0-4-4]						
LOADING	(psf)	SPACING-	2-0-0	cs	ı.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.62	Vert(LL)	0.16	12-26	>595	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	ВС	0.51	Vert(CT)	-0.21	12-26	>467	180	CONTRACTO	
BCLL	0.0 *	Rep Stress Incr	YES	WE	3 0.62	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code FBC2020/	TPI2014	Ma	trix-AS						Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2

**BOT CHORD** 2x4 SP No.2 WEBS 2x4 SP No.2

BRACING-TOP CHORD **BOT CHORD** 

WEBS

Structural wood sheathing directly applied.

Rigid ceiling directly applied. 1 Row at midpt

REACTIONS. All bearings 0-3-8 except (jt=length) 19=0-4-15.

Max Horz 2=-211(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 19, 12 except 2=-142(LC 12), 10=-143(LC 12)

Max Grav All reactions 250 lb or less at joint(s) except 2=422(LC 21), 10=341(LC 22), 19=1702(LC 17), 12=1480(LC 18)

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

TOP CHORD

2-3=-270/240, 3-4=-47/486, 4-5=-323/47, 5-6=-661/115, 6-7=-620/123, 7-8=-757/91,

8-9=-306/88, 9-10=0/317 **BOT CHORD** 

5-17=-643/132, 16-17=0/336, 15-16=0/620, 8-14=-541/0

WEBS

3-19=-541/353, 4-19=-1247/29, 17-19=-298/195, 4-17=0/941, 5-16=-15/331, 8-15=0/500,

9-14=0/609, 9-12=-1130/0

# 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-2-0, Interior(1) 2-2-0 to 20-10-0, Exterior(2R) 20-10-0 to 25-0-0, Interior(1) 25-0-0 to 43-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; 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) 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 12 except (jt=lb) 2=142, 10=143.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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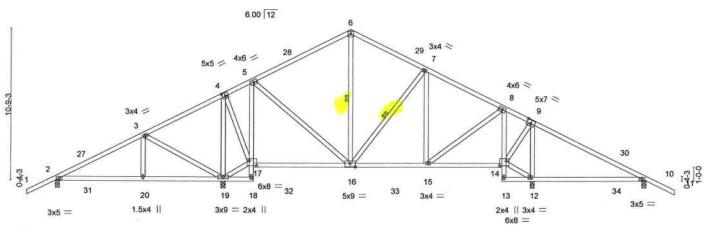
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T000		wood 21	Thorn	Ply	Qty		uss Type	Т	ss		Job
T2369			1	1	1		oof Special	R	2		THORNWOOD_21
	al)	eference (optiona	Job Re						-		
Apr 23 13:37:04 2021 Page	tries, Inc. Fri Apr 23	21 MiTek Industr	Mar 22 20	8.430 s N				2066,	Mayo, FL - 3	Inc.,	Mayo Truss Company, In
vHopRNPFUJDXIs?w?zNp					cROPhxkNg						
43-8-0	41-8-0	33-8-4	1-6-8	, 31	26-2-4	20-10-0	13-11-8,	11-9-12	2-2		-2-0-0
2-0-0	7-11-12	2-1-12	5-4-4	5	5-4-4	6-10-8	2-1-12	5-7-10	2-2		2-0-0

5x5 =

Scale = 1:81.7



	L	6-2-2	11-9-12	13-11-8	20-10-0	26-2-4		31	-6-8	33-8-4	41-8-0	3
	,	6-2-2	5-7-10	2-1-12	6-10-8	5-4-4		5-	4-4	2-1-12	7-11-12	
Plate Offs	ets (X,Y)	[4:0-2-8,0-3-0], [9:0-3-8	,0-3-0], [14:	0-5-8,0-4-4], [16	:0-4-8,0-3-0], [1	7:0-6-4,0-4-8]						
LOADING	(psf)	SPACING-	2-0-0	CSI		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	тс	0.62	Vert(LL)	0.16	12-26	>594	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	ВС	0.51	Vert(CT)	-0.21	12-26	>466	180	100000000000000000000000000000000000000	
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.03	12	n/a	n/a		
BCDL	10.0	Code FBC2020/	TPI2014	Mat	rix-AS	,					Weight: 259 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.2 BRACING-TOP CHORD

BOT CHORD WEBS

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

6-16, 7-16 1 Row at midpt

REACTIONS.

All bearings 0-3-8.

(lb) - Max Horz 2=-211(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 12 except 2=-150(LC 12), 10=-144(LC 12), 19=-112(LC 12) Max Grav All reactions 250 lb or less at joint(s) except 2=475(LC 21), 10=345(LC 22), 19=1687(LC 17), 12=1421(LC 18)

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

TOP CHORD 2-3=-358/272, 3-4=-47/456, 5-6=-585/106, 6-7=-544/113, 7-8=-698/83, 8-9=-288/87,

9-10=0/305

**BOT CHORD** 

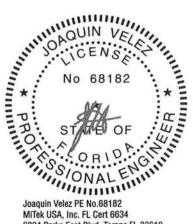
2-20=-161/268, 19-20=-161/268, 5-17=-767/152, 15-16=0/561, 8-14=-496/0 3-20=-219/253, 3-19=-606/390, 4-19=-1170/0, 17-19=-284/227, 4-17=0/879,

5-16=-35/474, 7-16=-268/89, 8-15=0/450, 9-14=0/557, 9-12=-1078/0

## NOTES-

**WEBS** 

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=42ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-2-0, Interior(1) 2-2-0 to 20-10-0, Exterior(2R) 20-10-0 to 25-0-0, Interior(1) 25-0-0 to 43-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; 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) 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 12 except (jt=lb) 2=150, 10=144, 19=112.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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ANSUTPI Quality Criteria, DSB-89 and BCSI Building Compo Safety Information

available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Job Truss Truss Type Thornwood 21 Qty Ply T23698778 THORNWOOD\_21 A13 Roof Special 2 Job Reference (optional) Mayo Truss Company, Inc., Mayo. FL - 32066 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:05 2021 Page 1 | ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-yJqb7gjg956WJW4iKHX7S6q?iriF\_vgMmycYSRzNpqi | 26-2-4 | 31-6-8 | 34-4-8 | 37-6-0 | 34-4-8 2-10-0 2-0-0 20-10-0 13-11-8 6-10-8

Scale = 1:73.4 5x5 = 6.00 12 6 26 3x4 > 4x6 = 4x6 > 10-9-3 8 27 5x5 > 3x4 = 3 4x6 < 10 16 15 6x8 = 29 5x9 30

5x9 =

3x4 =

Rigid ceiling directly applied.

1 Row at midpt

13

2x4 ||

Structural wood sheathing directly applied, except end verticals.

12

3x9 =

11

2x4 ||

11-9-12 5-7-10 13-11-8 Plate Offsets (X,Y)--[4:0-2-8,0-3-0], [9:0-2-8,0-3-0], [14:0-5-12,0-4-0], [16:0-4-8,0-3-0], [17:0-6-4,0-4-4] LOADING (psf) SPACING-2-0-0 CSI. DEFL (loc) I/def L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.42 Vert(LL) -0.07 16-17 >999 240 MT20 244/190 Lumber DOL TCDL 10.0 BC 1.25 -0.14 16-17 0.53 Vert(CT) >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.83 Horz(CT) 0.05 n/a 11 n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-AS Weight: 251 lb FT = 20%

**BRACING-**

WEBS

TOP CHORD

**BOT CHORD** 

18

3x9 = 2x4 ||

LUMBER-

REACTIONS.

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

(size) 2=0-3-8, 11=0-3-8, 19=0-3-8

Max Horz 2=228(LC 11)

28

3x5 =

Max Uplift 2=-139(LC 12), 19=-121(LC 12)

Max Grav 2=434(LC 21), 11=1064(LC 18), 19=1985(LC 2)

20

1.5x4 ||

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

TOP CHORD 2-3=-268/252, 3-4=-128/613, 5-6=-733/97, 6-7=-692/90, 7-8=-1126/61, 8-9=-1379/40,

9-10=-901/37, 10-11=-1010/26 BOT CHORD

5-17=-1026/178, 15-16=0/920, 14-15=-1/1191 **WEBS** 

3-20=-219/254, 3-19=-607/390, 4-19=-1369/34, 17-19=-477/211, 4-17=0/1052,

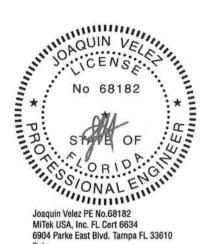
5-16=-43/753, 6-16=0/279, 7-16=-664/82, 7-15=0/390, 8-15=-368/56, 12-14=0/796,

9-14=0/580, 9-12=-760/39, 10-12=0/895

## 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-9-0, Interior(1) 1-9-0 to 20-10-0, Exterior(2R) 20-10-0 to 24-7-0, Interior(1) 24-7-0 to 37-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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) 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, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=139, 19=121.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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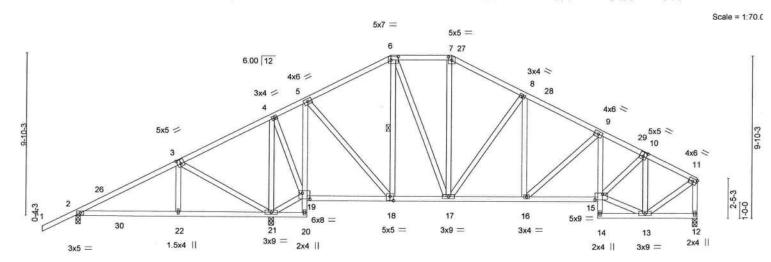
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ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Truss Job Truss Type Qty Ply Thornwood 21 T23698779 THORNWOOD\_21 A14 Hip Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:07 2021 Page 1 ID:IYcRQPhxkNgTW0wPzNuJ1qzOXII-vhyMYMlwgiMEZqD4RhZbXXvLefQQSrzfDG5fXKzNpqg 2-0-0 34-4-8 2-10-0 13-11-8 2-1-12 19-0-0 22-8-0 31-6-8 5-0-8 3-8-0 4-5-4 3-1-8



	-	6-2-2	11-9-12	13-11-8	19-0-0	, 22-8-0	1	27-1	-4 1	31-6-8	34-4-8 37	7-6-0
	1	6-2-2	5-7-10	2-1-12	5-0-8	3-8-0		4-5-	4	4-5-4		-1-8
Plate Offsets (X	Y)	[3:0-2-8,0-3-0], [6:0-5-4,0	)-2-8], [7:0-2-8	,0-2-4], [10:0-2-	8,0-3-0], [15:0-	5-8,0-4-0], [18	3:0-2-8,	0-3-0],[	19:0-5-8,	0-4-4]		
LOADING (psf		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL	1.25	TC 0	.39	Vert(LL)	0.06	22-25	>999	240	MT20	244/190
TCDL 10.0		Lumber DOL	1.25	BC 0	.42	Vert(CT)	-0.08	15-16	>999	180		
BCLL 0.0	*	Rep Stress Incr	YES	WB 0	.72	Horz(CT)	0.04	12	n/a	n/a		
BCDL 10.0		Code FBC2020/T	PI2014	Matrix-A	S	18 18					Weight: 270 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WEBS 2x4 SP No.2 **BRACING-**

TOP CHORD **BOT CHORD** WEBS

Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied 1 Row at midpt

REACTIONS.

(size) 2=0-3-8, 12=0-3-8, 21=0-3-8

Max Horz 2=212(LC 11)

Max Uplift 2=-139(LC 12), 21=-121(LC 12)

Max Grav 2=443(LC 21), 12=932(LC 1), 21=1768(LC 1)

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

TOP CHORD

2-3=-284/248, 3-4=-121/468, 5-6=-563/77, 6-7=-594/107, 7-8=-730/97, 8-9=-1031/70,

9-10=-1208/44, 10-11=-785/43, 11-12=-897/25

5-19=-955/155, 17-18=0/439, 16-17=0/871, 15-16=0/1069 BOT CHORD WEBS

3-22=-220/255, 3-21=-556/383, 4-21=-1170/48, 19-21=-415/189, 4-19=0/843

5-18=-54/690, 6-18=-425/91, 6-17=-49/440, 8-17=-476/74, 8-16=0/295, 9-16=-263/50,

13-15=-7/705, 10-15=0/516, 10-13=-714/42, 11-13=0/795

# 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-9-0, Interior(1) 1-9-0 to 19-0-0, Exterior(2E) 19-0-0 to 22-8-0, Exterior(2R) 22-8-0 to 27-11-10, Interior(1) 27-11-10 to 37-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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 100 lb uplift at joint(s) except (jt=lb) 2=139 21=121
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd, Tampa FL 33610 Date:

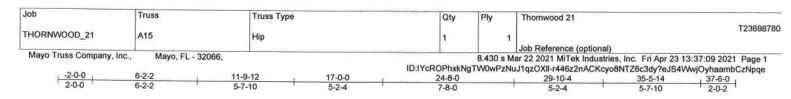
April 27,2021

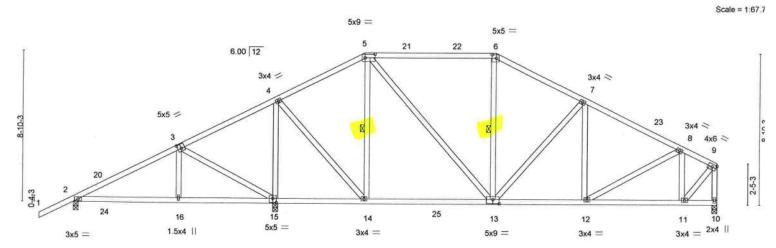
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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 Comp. Safety Information\*\*

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







	-	6-2-2	11-9-12	17-0-0	24-8-0	29-10-4	35-5-14	37-6-0
		6-2-2	5-7-10	5-2-4	7-8-0	5-2-4	5-7-10	2-0-2
Plate Offse	ets (X,Y)	[3:0-2-8,0-3-0], [5:0-7-0,0	0-2-8], [6:0-3-0,0	)-2-8], [13:0-4-8,0-3-0],	[15:0-2-8,0-3-0]			
LOADING TCLL TCDL	(psf) 20.0 10.0	SPACING- Plate Grip DOL	2-0-0 1.25	CSI. TC 0.63	DEFL. in (loc) Vert(LL) -0.12 13-14		PLATES MT20	GRIP 244/190
BCLL BCDL	0.0 *	Lumber DOL Rep Stress Incr Code FBC2020/T	1.25 YES PI2014	BC 0.51 WB 0.85 Matrix-AS	Vert(CT) -0.19 13-14 Horz(CT) 0.02 10		Weight: 234 lb	FT = 20%

**BRACING-**

WEBS

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.2 BOT CHORD

2x4 SP No.2 WEBS 2x4 SP No.2

(size) 2=0-3-8, 15=0-3-8, 10=0-3-8

Max Horz 2=194(LC 11)

Max Uplift 2=-137(LC 12), 15=-121(LC 12)

Max Grav 2=495(LC 21), 15=1818(LC 2), 10=1119(LC 18)

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

TOP CHORD 2-3=-395/238, 3-4=-118/349, 4-5=-641/70, 5-6=-857/116, 6-7=-1004/101, 7-8=-1208/71,

8-9=-763/37, 9-10=-1124/9

BOT CHORD 2-16=-213/298, 15-16=-207/295, 13-14=0/512, 12-13=0/978, 11-12=-26/651 WEBS

3-16=-226/254, 3-15=-584/378, 4-15=-1398/172, 4-14=-53/1012, 5-14=-531/135,

5-13=-57/527, 7-13=-299/72, 8-12=0/374, 8-11=-614/76, 9-11=-18/1029

### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=38ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-9-0, Interior(1) 1-9-0 to 17-0-0, Exterior(2R) 17-0-0 to 22-3-10, Interior(1) 22-3-10 to 24-8-0, Exterior(2R) 24-8-0 to 29-10-4, Interior(1) 29-10-4 to 37-4-4 zone; cantilever left and right exposed; end vertical left and right exposed; porch left 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.

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, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=137, 15=121.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

5-14, 6-13

Rigid ceiling directly applied.

1 Row at midpt

Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

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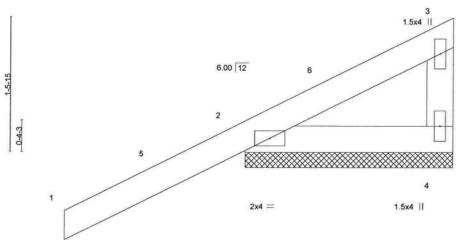
\*\*ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\*

\*\*ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\*



6904 Parke East Blvd. Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	Thornwood 21
THORNWOOD_21	A16GE	Roof Special Supported Gable	1	1	T23698781
Mayo Truss Company,	Inc., Mayo, FL - 3206	6,	ID:IYcROPhyk		Job Reference (optional) lar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:10 2021 Page 1 NuJ1qzOXII-JGeUANnpzdkpQHyf6q7l9AXs7sXxfNx5wEJJ8ezNpqd
	Ti.	-2-0-0	ID II TOTTOT TIA	2-3-8	i i i i i i i i i i i i i i i i i i i
		2-0-0		2-3-8	
					Scale = 1:12.



LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	-0.02	1	n/r	120	I III I I	2111100
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code FBC2020/T	2 mm 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Matri	1.00	11012(01)	0.00		,,,,	11/4	Weight: 12 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

2x4 SP No.2

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

Max Horz 2=46(LC 9)

Max Uplift 2=-79(LC 12)

Max Grav 4=46(LC 3), 2=262(LC 1)

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

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3E) -2-0-0 to 1-0-0, Exterior(2N) 1-0-0 to 2-1-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 3) 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.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* 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.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2.



Structural wood sheathing directly applied or 2-3-8 oc purlins,

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

except end verticals.

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

April 27,2021

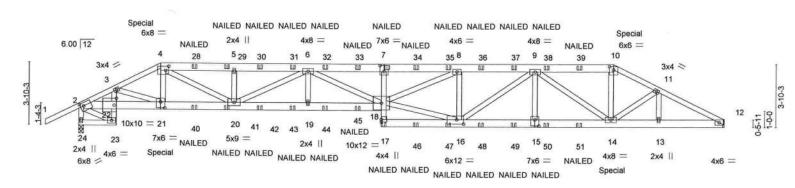
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ANSITPIT Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job Truss Truss Type Qty Ply Thomwood 21 T23698782 THORNWOOD\_21 **B1GIR** Hip Girder 2 Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:42 2021 Page 1 | ID:IYCROPhxkNgTW0wPzNuJ1qzOXII-NQZbuKAIRTmGFCPp\_YioSvsJSmGT9d2pHD3?GozNpq7 23-3-4 27-10-12 32-8-0 35-5-4 39-5-0 9-6-0 14-0-0 18-6-0 4-6-0 23-3-4 4-9-4 4-6-0 4-6-0 4-7-8 4-9-4 2-9-4 3-11-12

Scale = 1:70.7



	2-3-8	5-0-0 9-6-0	14-0-0	18-6-0	23-3-4	27-10-12	2 ,	32-8-0	35-5-4	39-5-0
	2-3-8	2-8-8 4-6-0	4-6-0	4-6-0	4-9-4	4-7-8		4-9-4	2-9-4	3-11-12
Plate Offse	ts (X,Y)	[2:0-2-7,0-2-4], [4:0-2-4,0	0-3-0], [7:0-3-0,0-4	8], [10:0-3-0,0-2-7], [1	5:0-3-0,0-4-8], [16	6:0-5-0,0-3-4], [	21:0-3-0,	0-4-8], [22:0-	1-12,0-5-0]	
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.47	Vert(LL)	-0.46 18-19	>999	240	MT20	244/190
	10.0	Lumber DOL	1.25	BC 0.81	Vert(CT)	-0.94 18-19	>503	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB 0.95	Horz(CT)	0.28 12	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matrix-MS	2. %				Weight: 552	2 lb FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*

4-7,7-10: 2x6 SP No.2

**BOT CHORD** 2x6 SP No.2 \*Except\*

23-24,22-23: 2x4 SP No.2, 7-17: 2x4 SP No.1, 18-21: 2x6 SP SS

WEBS 2x4 SP No.2

REACTIONS.

(size) 12=Mechanical, 24=0-3-8

Max Horz 24=-84(LC 6) Max Uplift 24=-50(LC 8)

Max Grav 12=3135(LC 1), 24=3320(LC 1)

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

2-3=-5948/0, 3-4=-6694/0, 4-5=-10012/0, 5-6=-10007/0, 6-7=-13686/0, 7-8=-13466/0,

8-9=-9602/0, 9-10=-5749/0, 10-11=-6318/0, 11-12=-6249/0, 2-24=-3373/59 BOT CHORD 23-24=-20/579, 22-23=-8/311, 2-22=0/5116, 21-22=0/5272, 20-21=0/5985, 19-20=0/12794, 18-19=0/12794, 7-18=-449/124, 16-17=0/1386, 15-16=0/8251,

14-15=0/8251, 13-14=0/5531, 12-13=0/5531

3-21=-29/802, 4-21=0/506, 4-20=0/4603, 5-20=-618/108, 6-20=-3164/0, 6-19=0/512,

6-18=-18/1017, 16-18=0/8405, 8-18=0/4350, 8-16=-2658/104, 9-16=0/1698, 9-15=0/369,

9-14=-3135/33, 10-14=0/2369, 3-22=-625/32, 11-14=-148/289, 2-23=-475/33

### NOTES-

WEBS

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc. Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.

Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

Unbalanced roof live loads have been considered for this design.

- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=39ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

6) 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.

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

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 24.

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

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 MiTe&s 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 ANSUTPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Structural wood sheathing directly applied or 3-10-7 oc purlins,

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

except end verticals.

Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021



Job	Truss	Truss Type	Qty	Ply	Thornwood 21	
THORNWOOD_21	B1GIR	Hip Girder	1	2	Job Reference (optional)	T23698782
Mayo Truss Company,	Inc., Mayo, FL - 3206	6,	ID:IYcROPhxkNaT\	8.430 s M	ar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:42 202 qzOXII-NQZbuKAtRTmGFCPp YioSysJSmGT9d2pHD3?	

NOTES-

12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 139 lb down and 93 lb up at 5-0-0, and 227 lb down and 134 lb up at 32-8-0 on top chord, and 240 lb down and 21 lb up at 5-0-0, and 319 lb down at 32-7-4 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 Uniform Loads (plf)

Vert: 1-2=-60, 2-4=-60, 4-10=-60, 10-12=-60, 23-24=-20, 18-22=-20, 17-25=-20

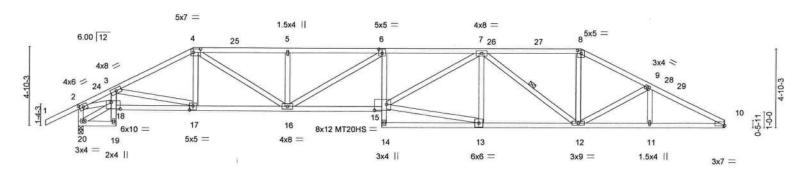
Concentrated Loads (lb)

Vert: 4=-108(B) 10=-180(B) 21=-236(B) 7=-121(B) 18=-59(B) 14=-319(B) 28=-108(B) 29=-108(B) 30=-108(B) 31=-108(B) 32=-108(B) 33=-108(B) 33=-108(B) 33=-108(B) 33=-108(B) 33=-121(B) 35=-121(B) 36=-121(B) 36=-121(B) 36=-121(B) 36=-121(B) 39=-121(B) 39=-121(B) 40=-72(B) 41=-72(B) 42=-72(B) 43=-72(B) 44=-72(B) 45=-72(B) 45=-72(B) 46=-59(B) 47=-59(B) 48=-59(B) 49=-59(B) 51=-59(B) 51=-59(B)



Truss Truss Type Qty Ply Thornwood 21 T23698783 THORNWOOD\_21 B2 Hip Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:45 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-n?FjWLCmkO8r6g7OggFV4YUqNzI4M1UFzBlgt7zNpq4 39-5-0 34-10-12 6-1-0 5-9-0 4-2-12 4-6-4

Scale = 1:70.7



2-3-8	7-0-0	12-9-0	18	-6-0	24-7-0			30-8-0		34-10-12 / 39	9-5-0
2-3-8	4-8-8	5-9-0	5-	9-0	6-1-0			6-1-0		4-2-12 4	-6-4
Plate Offsets (X,Y)	[2:0-2-15,0-2-0], [4:0-5-4,0-2-8], [6:0-2-8,0-3-0], [8:0-2-8,0				10:0-0-0,0-0-2], [1:						
LOADING (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defi	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC	0.49	Vert(LL)		15-16	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.25	BC	0.82	Vert(CT)	-0.77	15-16	>613	180	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.32	10	n/a	n/a		
BCDL 10.0	Code FBC2020/T	PI2014	Matrix	-AS						Weight: 227 I	b FT = 20%

BRACING-

WEBS

TOP CHORD

BOT CHORD

LUMBER-

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

2x4 SP No.2 \*Except\*

15-17: 2x4 SP No.1

WEBS 2x4 SP No.2

REACTIONS.

(size) 10=Mechanical, 20=0-3-8 Max Horz 20=-101(LC 10)

Max Uplift 20=-53(LC 12)

Max Grav 10=1567(LC 1), 20=1703(LC 1)

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

TOP CHORD 2-3=-3254/107, 3-4=-2863/109, 4-5=-3810/142, 5-6=-3810/142, 6-7=-4490/163,

7-8=-2399/136, 8-9=-2690/135, 9-10=-2949/121, 2-20=-1574/118

3-18=0/295, 17-18=-95/3159, 16-17=-2/2522, 15-16=-46/4540, 12-13=-40/3223,

11-12=-62/2569, 10-11=-62/2569

WEBS 3-17=-693/94, 4-16=-44/1571, 5-16=-357/93, 6-16=-884/26, 13-15=-38/3041,

7-15=-15/1478, 7-13=-495/85, 7-12=-1110/29, 8-12=0/877, 2-18=-62/2813

### NOTES-

**BOT CHORD** 

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=39ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-1-12, Interior(1) 2-1-12 to 7-0-0, Exterior(2R) 7-0-0 to 12-9-0, Interior(1) 12-9-0 to 30-8-0, Exterior(2R) 30-8-0 to 36-2-14, Interior(1) 36-2-14 to 39-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) All plates are MT20 plates unless otherwise indicated.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20.
- 10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

No 68182

No 68182

No 68182

No 68182

Joaquin Velez PE No.68182 SOAQUIN VEL 68182

Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

1 Row at midpt

Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

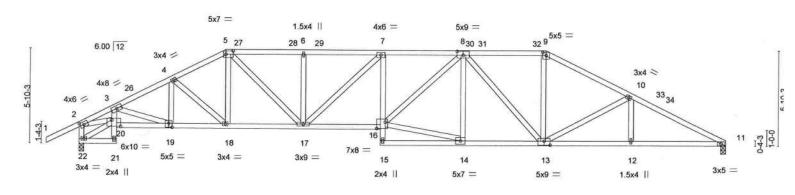
🚵 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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 

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



Job Truss Truss Type Qty Ply Thornwood 21 T23698784 THORNWOOD 21 **B3** Hip Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066. 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:47 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-kONTx1E0G?PZMzHmn5Hz9zZBZnzaqxwYQUnmx?zNpq2 23-7-0 28-8-0 33-10-12 39-8-0 4-9-0

Scale = 1:71.2



	2-3-8	5-7-12 9-0-0	13-9-0	18-6-0	23-7-0	, 28	8-0	33-10-12	39-8-0	
	2-3-8	3-4-4 3-4-4	4-9-0	4-9-0	5-1-0	5-	1-0	5-2-12	5-9-4	
Plate Offset	ts (X,Y)	[2:0-2-15,0-2-0], [5:0-5-	4,0-2-8], [8:0-4-8,0	-3-0], [9:0-2-8,0-2-4], [1	13:0-4-8,0-3-0], [1	6:0-6-4,0-4-1	2], [19:0-2-	8,0-3-0], [20:0-6	5-8,0-4-12]	
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in (lo	:) I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.39	Vert(LL)	-0.28 16-1	300	240	MT20	244/190
	10.0	Lumber DOL	1.25	BC 0.82	Vert(CT)	-0.56 16-1		180		
BCLL	0.0	Rep Stress Incr	YES	WB 0.72	Horz(CT)	0.28	1 n/a	n/a		
BCDL	10.0	Code FBC2020/	TPI2014	Matrix-AS	10 10			33.55	Weight: 244 lb	FT = 20%

LUMBER-

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

2x4 SP No.2

**BRACING-**

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

Rigid ceiling directly applied.

REACTIONS.

(size) 11=0-3-8, 22=0-3-8 Max Horz 22=-120(LC 10)

Max Uplift 22=-53(LC 12)

Max Grav 11=1577(LC 1), 22=1713(LC 1)

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

TOP CHORD

2-3=-3265/102, 3-4=-2935/123, 4-5=-2702/136, 5-6=-3111/151, 6-7=-3111/151, 7-8=-3525/163, 8-9=-2286/147, 9-10=-2618/145, 10-11=-3099/128, 2-22=-1586/121

**BOT CHORD** 3-20=0/336, 19-20=-65/3126, 18-19=-34/2602, 17-18=0/2380, 16-17=-17/3552, 13-14=-16/2733, 12-13=-59/2717, 11-12=-59/2717

WEBS

3-19=-584/33, 4-18=-319/56, 5-18=0/304, 5-17=-37/1070, 6-17=-306/83, 7-17=-643/16,

14-16=-18/2654, 8-16=-4/1059, 8-14=-525/66, 8-13=-760/24, 9-13=0/849,

10-13=-509/74, 2-20=-52/2816

### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-1-12, Interior(1) 2-1-12 to 9-0-0, Exterior(2R) 9-0-0 to 14-7-5, Interior(1) 14-7-5 to 28-8-0, Exterior(2R) 28-8-0 to 34-3-5, Interior(1) 34-3-5 to 39-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

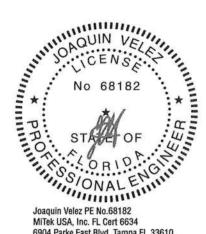
4) Provide adequate drainage to prevent water ponding.

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

\* 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) 22.

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



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April 27,2021

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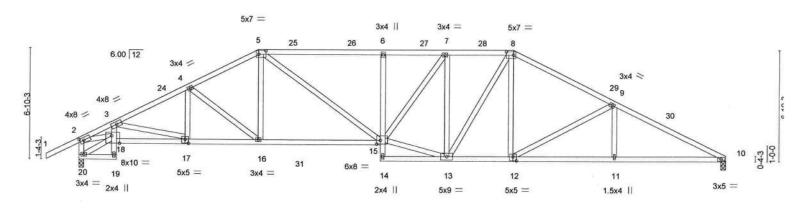
\*\*ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Comp Safety Information\*\*

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



Job Truss Truss Type Qty Ply Thomwood 21 T23698785 THORNWOOD\_21 B5 Hip 1 Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:49 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-gmVEMjGGncfHbHR9vWKREOfR5ae8IsnruoGt0uzNpq0 26-8-0 22-7-0 32-10-12 39-8-0 4-1-0

Scale = 1:71.2



	2-3-8	6-7-12	1-0-0	18-6-0	0	22-7-0	26-8	3-0		32-10-12	39-8-0	
	2-3-8	4-4-4	4-4-4	7-6-0	1	4-1-0	4-1	-0		6-2-12	6-9-4	
Plate Offsets (X,Y)		[2:0-2-15,0-2-0], [5:0-5-	[15:0-2-12,0-2-12]	], [17:0-	2-8,0-3-							
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defi	L/d	PLATES	GRIP
CLL	20.0	Plate Grip DOL	1.25	TC	0.77	Vert(LL)		15-16	>999	240	MT20	244/190
CDL	10.0	Lumber DOL	1.25	BC	0.88	Vert(CT)	-0.60	15-16	>787	180	11.5	
BCLL	0.0	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.28	10	n/a	n/a		
BCDL	10.0	Code FBC2020/	TPI2014	Matri	ix-AS	574 C (					Weight: 244 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

2x4 SP No.2

(size) 10=0-3-8, 20=0-3-8 Max Horz 20=-139(LC 10)

Max Uplift 20=-53(LC 12)

Max Grav 10=1756(LC 18), 20=1876(LC 17)

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

TOP CHORD 2-3=-3781/100, 3-4=-3228/131, 4-5=-2854/144, 5-6=-3085/168, 6-7=-3051/167,

7-8=-2560/168, 8-9=-2688/154, 9-10=-3348/130, 2-20=-1785/118 BOT CHORD

3-18=0/427, 17-18=-65/3751, 16-17=-34/2922, 15-16=0/2571, 6-15=-405/104,

12-13=0/2294, 11-12=-54/2945, 10-11=-54/2945

3-17=-841/33, 4-16=-456/69, 5-16=0/550, 5-15=-37/814, 13-15=0/2546, 7-15=-4/936,

7-13=-926/53, 8-13=-19/538, 8-12=0/541, 9-12=-743/81, 9-11=0/275, 2-18=-52/3243,

18-20=-268/74

### NOTES-

**WEBS** 

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 2-1-12, Interior(1) 2-1-12 to 11-0-0, Exterior(2R) 11-0-0 to 16-7-5, Interior(1) 16-7-5 to 26-8-0, Exterior(2R) 26-8-0 to 32-3-5, Interior(1) 32-3-5 to 39-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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.

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

\* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20.

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



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

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

April 27,2021

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 rev. 5/19/2020 BEFORE USE Design valid for use only with MITEK economics and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MITEK 16% OF THIS AUGUS DEFORE USE.

Design valid for use only with MITEK economics 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

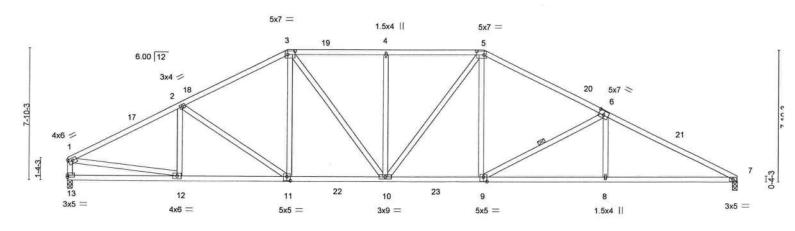
ANSITPIT Quality Critoria, DSB-89 and BCSI Building Con Safety Information

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



Job Truss Truss Type Qty Ply Thornwood 21 T23698786 THORNWOOD\_21 B6 Hip Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:51 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-c9c\_nPHXJEv?qbbX0xMwKpkptOJImpz8L6I\_4mzNpq\_ 13-0-0 24-8-0 5-10-0 18-10-0 31-10-12 39-8-0 5-10-0

Scale = 1:68.7



į.		6-7-12	13-0-0	18	3-10-0	24-8-0			31-10	-12	39-8-0	
	2	6-7-12	6-4-4	5-10-0		5-10-0		7-2-12		12	7-9-4	
Plate Offsets (X,Y) [1:Edge,0-1-12], [3:0-5-4,0-2-8], [5:0-5-4		4,0-2-8], [6:0-	3-8,0-3-0], [	9:0-2-8,0-3-4], [11:	0-2-8,0-	3-0]						
OADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
CLL	20.0	Plate Grip DOL	1.25	TC	0.69	Vert(LL)	-0.20	9-10	>999	240	MT20	244/190
CDL	10.0	Lumber DOL	1.25	BC	0.96	Vert(CT)	-0.37	8-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.13	7	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matri	x-AS	With the second					Weight: 228 lb	FT = 20%

LUMBER-

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

WEBS 2x4 SP No.2 **BRACING-**

TOP CHORD BOT CHORD WEBS

Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied. 1 Row at midpt

REACTIONS.

(size) 13=0-3-8, 7=0-3-8

Max Horz 13=-151(LC 10)

Max Grav 13=1781(LC 17), 7=1791(LC 18)

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

TOP CHORD 1-2=-2622/120, 2-3=-2393/162, 3-4=-2335/180, 4-5=-2335/180, 5-6=-2587/163,

6-7=-3357/134, 1-13=-1665/100

**BOT CHORD** 12-13=-41/348, 11-12=-33/2367, 10-11=0/2128, 9-10=0/2205, 8-9=-55/2941,

2-11=-291/69, 3-11=0/416, 3-10=-22/538, 4-10=-378/88, 5-10=-17/348, 5-9=0/675,

6-9=-863/91, 6-8=0/319, 1-12=-34/2049

# NOTES-

WEBS

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=40ft; eave=5ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 4-1-6, Interior(1) 4-1-6 to 13-0-0, Exterior(2R) 13-0-0 to 18-10-0, Interior(1) 18-10-0 to 24-8-0, Exterior(2R) 24-8-0 to 30-3-5, Interior(1) 30-3-5 to 39-8-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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, with BCDL = 10.0psf.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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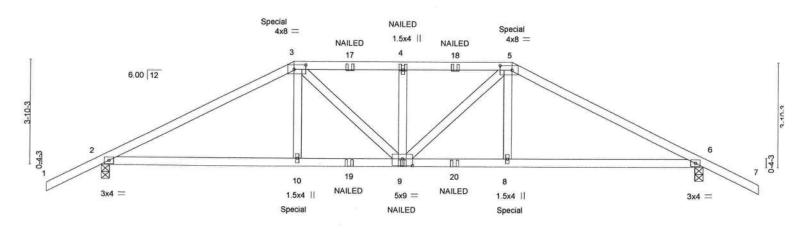
April 27,2021

🛦 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 MITE& component on the same of the



Job Truss Truss Type Qty Ply Thornwood 21 T23698787 THORNWOOD\_21 C1GIR Hip Girder 1 Job Reference (optional)
8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:53 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-YYklC4Jnrr9j4ukw8MOOPEpCEC5cEoWRoQE58fzNppy 22-0-0 7-0-0 24-0-0 15-0-0 2-0-0 7-0-0 4-0-0 4-0-0 2-0-0

Scale = 1:42.4



	-	7-0-0		10	11-0-0	1	5-0-0			2	2-0-0	- 1
		7-0-0			4-0-0		1-0-0				7-0-0	
Plate Offse	ets (X,Y)	[3:0-5-4,0-2-0], [5:0-5-4,0	-2-0], [9:0-4-8,	0-3-0]								
LOADING	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.44	Vert(LL)	-0.06	9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.46	Vert(CT)	-0.12	9	>999	180	20	2111100
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.07	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TF	PI2014	Matrix	x-MS	07-10-000A-00-1-2	((3,0,0,0,0)			1.51.50	Weight: 208 lb	FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

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

Max Horz 2=75(LC 24)

Max Grav 2=1769(LC 1), 6=1769(LC 1)

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

TOP CHORD 2-3=-3127/0, 3-4=-3101/0, 4-5=-3101/0, 5-6=-3127/0 BOT CHORD 2-10=0/2714, 9-10=0/2735, 8-9=0/2735, 6-8=0/2714

WEBS 3-10=0/610, 3-9=-41/573, 4-9=-520/120, 5-9=-41/573, 5-8=0/610

NOTES-

1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:

Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.

Bottom chords connected as follows: 2x4 - 1 row at 0-9-0 oc. Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.

All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to
ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.

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

- 4) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 5) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

6) Provide adequate drainage to prevent water ponding.

- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

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

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 227 lb down and 132 lb up at 7-0-0, and 227 lb down and 132 lb up at 15-0-0 on top chord, and 319 lb down at 7-0-0, and 319 lb down at 14-11-4 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 Uniform Loads (plf)

Vert: 1-3=-60, 3-5=-60, 5-7=-60, 11-14=-20

NO 68182

NO 68182

NO 68182

A STATE OF WAR AND CONTROL OF THE O

Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL-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 20801



6904 Parke East Blvd. Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	Thornwood 21	
THORNWOOD_21	C1GIR	Hip Girder	1	2	Job Reference (optional)	T23698787

Mayo Truss Company, Inc.,

Mayo, FL - 32066,

8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:53 2021 Page 2 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-YYklC4Jnrr9j4ukw8MOOPEpCEC5cEoWRoQE58fzNppy

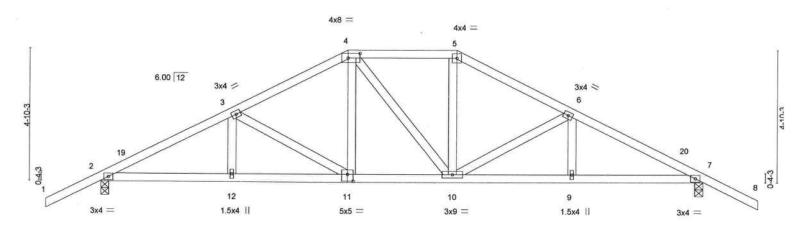
LOAD CASE(S) Standard Concentrated Loads (lb)

Vert: 3=-180(F) 5=-180(F) 10=-319(F) 9=-59(F) 4=-121(F) 8=-319(F) 17=-121(F) 18=-121(F) 19=-59(F) 20=-59(F)



Job Truss Truss Type Qty Ply Thornwood 21 T23698788 THORNWOOD\_21 C2 Hip Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:55 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-VwsVdmK1NSPQJCuJFnQsUfvbf?p8ihYjGkjBCYzNppw 24-0-0 17-2-12 22-0-0 4-0-0 4-2-12 4-9-4

Scale = 1:42.4



	1	4-9-4	-1	9-0-0	1	13-0-0	-	17-	2-12	4	22-0-0	- 1
		4-9-4		4-2-12	,	4-0-0		4-2	2-12	1	4-9-4	- 1
Plate Offse	ets (X,Y)	[4:0-5-4,0-2-0], [11:0-2-8,	0-3-0]									
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	0.25	Vert(LL)	-0.05	11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.25	BC	0.33	Vert(CT)		11-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matrix	K-AS						Weight: 117 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

LUMBER-

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

WEBS 2x4 SP No.2

REACTIONS.

(size) 2=0-3-8, 7=0-3-8 Max Horz 2=-91(LC 10)

Max Uplift 2=-49(LC 12), 7=-49(LC 12) Max Grav 2=1000(LC 1), 7=1000(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1560/88, 3-4=-1202/107, 4-5=-1023/116, 5-6=-1195/106, 6-7=-1560/88 **BOT CHORD** 

2-12=0/1347, 11-12=0/1347, 10-11=0/1020, 9-10=-16/1347, 7-9=-16/1347 WEBS

3-11=-377/53, 4-11=0/306, 5-10=0/307, 6-10=-382/53

### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-0-0, Exterior(2E) 9-0-0 to 13-0-0, Exterior(2R) 13-0-0 to 17-2-12, Interior(1) 17-2-12 to 24-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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) 2, 7.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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Job	Truss	Truss Type	Qty	Ply	Thornwood 21		T23698789
THORNWOOD_21	СЗ	Common	4	1	Job Reference (optional)		3.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Mayo Truss Company, I	nc., Mayo, FL - 32066,		ID:IYcROPhxkl	8.430 s NgTW0wPz	Mar 22 2021 MiTek Industries NuJ1qzOXII-z7Qtq6Lf8mXHx	MTVpUy51sRl6P8	3QR6WtVOSII_zNppv
-2-0-0	5-9-4	. 11-0-0	190	16-2-12		22-0-0	24-0-0
2-0-0	5-9-4	5-2-12		5-2-12		5-9-4	2-0-0

Scale = 1:41.7

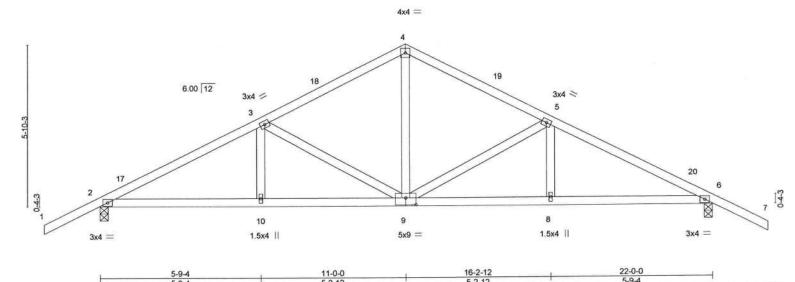


Plate Off	sets (X,Y)	[9:0-4-8,0-3-0]			-2-12		3-2-				1	
LOADIN TCLL	G (psf) 20.0	SPACING- Plate Grip DOL	2-0-0 1.25	CSI.	0.27	DEFL. Vert(LL)	in -0.05	(loc) 9	I/defl >999	L/d 240	PLATES MT20	GRIP 244/190
CDL	10.0	Lumber DOL Rep Stress Incr	1.25 YES	BC WB	0.39	Vert(CT) Horz(CT)	-0.11 0.04	9-10	>999 n/a	180 n/a		
BCDL	10.0	Code FBC2020/T		0.0000000000000000000000000000000000000	x-AS	11012(01)	0.04				Weight: 109 lb	FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

LUMBER-

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

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

Max Horz 2=107(LC 11) Max Uplift 2=-49(LC 12), 6=-49(LC 12)

Max Grav 2=1000(LC 1), 6=1000(LC 1)

FORCES. (ib) - Max. Comp./Max. Ten. - All forces 250 (ib) or less except when shown. TOP CHORD 2-3=-1523/118, 3-4=-1055/134, 4-5=-1055/134, 5-6=-1523/118 BOT CHORD 2-10=-5/1305, 9-10=-5/1305, 8-9=-24/1305, 6-8=-24/1305

**WEBS** 4-9=-7/583, 5-9=-504/82, 3-9=-504/83

# 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 24-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 100 lb uplift at joint(s) 2, 6.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

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



Thornwood 21 Qty Truss Type T23698790 Truss Job 2 1 Common THORNWOOD 21 C4 Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:57 2021 Page 1 Mayo, FL - 32066, ID:IYCROPhxkNgTW0wPzNuJ1qzOXII-RJzF2SMHv4f8ZW2hNBTKZ4\_wMpTfAYQ0j2ClHQzNppu Mayo Truss Company, Inc., 22-0-0 11-0-0 -2-0-0 2-0-0 Scale = 1:38.9 4x4 = 6.00 12 3x4 > 3x4 / 3 0-4-3 7 9 3x4 = 1.5x4 || 5x9 = 1.5x4 | 3x4 = Plate Offsets (X,Y)--[8:0-4-8,0-3-0] PLATES GRIP I/defl L/d DEFL. (loc) CSI. 2-0-0 SPACING-LOADING (psf) 244/190 -0.05 8 >999 240 MT20 TC 0.30 Vert(LL) Plate Grip DOL 1.25 TCLL 20.0 >999 180 -0.11 8-9 1.25 BC 0.45 Vert(CT) Lumber DOL TCDL 10.0

0.04

Horz(CT)

BRACING-

TOP CHORD

**BOT CHORD** 

n/a

Rigid ceiling directly applied.

n/a

Structural wood sheathing directly applied.

LUMBER-

BCLL

BCDL

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

2x4 SP No.2 WEBS

0.0

10.0

REACTIONS.

(size) 6=0-3-8, 2=0-3-8 Max Horz 2=104(LC 11) Max Uplift 2=-52(LC 12)

Max Grav 6=875(LC 1), 2=1005(LC 1)

Rep Stress Incr

Code FBC2020/TPI2014

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

TOP CHORD

2-3=-1535/130, 3-4=-1066/139, 4-5=-1068/146, 5-6=-1549/143 2-9=-64/1317, 8-9=-64/1317, 7-8=-68/1346, 6-7=-68/1346

YES

**BOT CHORD** WEBS

4-8=-20/597, 5-8=-540/93, 3-8=-505/84

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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 11-0-0, Exterior(2R) 11-0-0 to 14-0-0, Interior(1) 14-0-0 to 22-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

WB

Matrix-AS

0.33

- 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 100 lb uplift at joint(s) 2.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



FT = 20%

Weight: 106 lb

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April 27,2021

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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 \*\*ANS/ITP11 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 Type Qty Ply Thornwood 21 Truss T23698791 THORNWOOD\_21 2 C5 Common Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:37:58 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-vVXeFoNwgNn?Agdtwv\_Z6HX5SDs6v0rAyixspszNppt 11-0-0 12-7-8 2-0-0 1-7-8 Scale = 1:36.2 4x4 = 3x4 < 5 6.00 12 3×4 -0-4-3 8 7 1.5x4 || 3x9 = 3x4 = 1.5x4 | 12-7-8 11-0-0 5-2-12 GRIP LOADING (psf) SPACING-2-0-0 CSI DEFL (loc) I/defl L/d PLATES 244/190 TCLL 20.0 Plate Grip DOL 1.25 TC 0.28 Vert(LL) -0.028-11 >999 240 MT20 TCDL BC 180 10.0 Lumber DOL 1.25 0.31 Vert(CT) -0.068-11 >999 BCLL 0.0 Rep Stress Incr YES WB 0.32 Horz(CT) 0.01 6 n/a n/a Code FBC2020/TPI2014 Weight: 77 lb FT = 20% BCDL 10.0 Matrix-AS LUMBER-BRACING-TOP CHORD Structural wood sheathing directly applied, except end verticals.

**BOT CHORD** 

Rigid ceiling directly applied.

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

REACTIONS.

2=0-3-8, 6=0-3-8 Max Horz 2=170(LC 11) Max Uplift 2=-50(LC 12)

Max Grav 2=629(LC 1), 6=490(LC 1)

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

TOP CHORD 2-3=-715/95, 5-6=-485/132 BOT CHORD 2-8=-222/586, 7-8=-222/586 3-7=-521/151, 5-7=-159/436 WEBS

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 11-0-0, Exterior(2E) 11-0-0 to 12-5-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 100 lb uplift at joint(s) 2.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

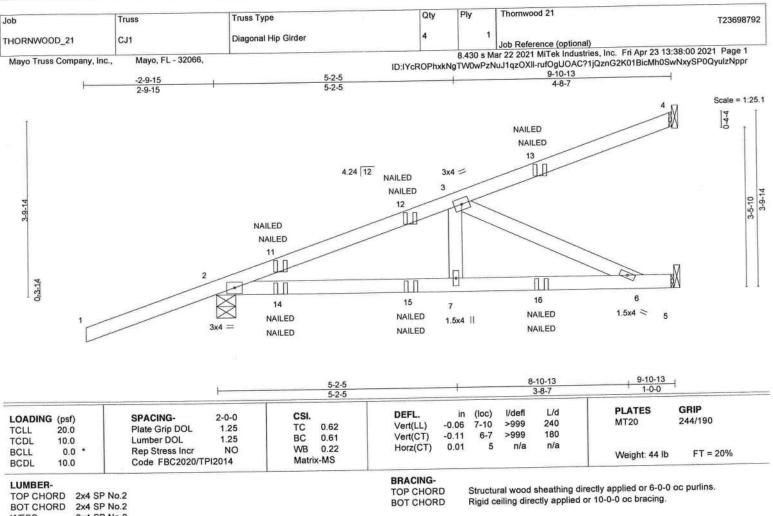
April 27,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/20/20 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 chorembers 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

ANSUTPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





WEBS 2x4 SP No.2

REACTIONS.

(size) 4=Mechanical, 2=0-4-15, 5=Mechanical

Max Horz 2=120(LC 8)

Max Uplift 4=-32(LC 8), 2=-152(LC 8)

Max Grav 4=144(LC 1), 2=544(LC 28), 5=303(LC 29)

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

TOP CHORD 2-3=-732/0

2-7=-35/641, 6-7=-35/641 BOT CHORD

3-7=0/275, 3-6=-706/38 WEBS

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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.
- 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.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb)
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 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=-60, 5-8=-20

Concentrated Loads (lb) Vert: 11=72(F=36, B=36) 13=-71(F=-36, B=-36) 14=82(F=41, B=41) 15=4(F=2, B=2) 16=-49(F=-24, B=-24) Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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 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 20801



Thornwood 21 Qty Ply Truss Type Truss .lob T23698793 THORNWOOD\_21 CJ2 Diagonal Hip Girder Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:01 2021 Page 1 Mayo, FL - 32066, Mayo Truss Company, Inc., ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-J4DmtpPozl9a17MSc1XGjw9WLQrY6QLcegAWQBzNppq 2-9-15 1-4-15 1-9-10 Scale = 1:24.6 3x4 = NAILED NAILED 5 4.24 12 15 3x4 = NAILED 2-9-14 NAILED 3x4 = 3 3x4 = ĺД 2 10 1-4-3 9 0-0-1 8 4x12 = 17 0 NAILED 1.5x4 \\ NAILED 16 12 11 3x9 = 1.5x4 || 1.5x4 II NAILED NAILED 0-0-6 3-1-6 GRIP **PLATES** DEFL I/defl L/d (loc) SPACING-CSI. LOADING (psf) 2-0-0 244/190 -0.01 8-9 >999 240 MT20 Vert(LL) Plate Grip DOL 1.25 TC 0.69 TCLL 20.0 180 -0.02 8-9 >999 Vert(CT) TCDL 10.0 Lumber DOL 1.25 BC 0.39 Horz(CT) 0.01 n/a n/a BCLL 0.0 Rep Stress Incr NO WB 0.08 FT = 20%Weight: 46 lb Code FBC2020/TPI2014 BCDL 10.0 Matrix-MP BRACING-LUMBER-Structural wood sheathing directly applied or 6-0-0 oc purlins, TOP CHORD TOP CHORD 2x4 SP No.2 except end verticals. **BOT CHORD** 2x4 SP No.2 Rigid ceiling directly applied or 10-0-0 oc bracing BOT CHORD 2x4 SP No.2 WEBS REACTIONS. 13=0-4-3, 6=Mechanical, 7=Mechanical (size) Max Horz 13=118(LC 8) Max Uplift 13=-151(LC 8), 6=-13(LC 8), 7=-12(LC 5)

Max Grav 13=491(LC 28), 6=65(LC 1), 7=212(LC 28)

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

TOP CHORD 2-13=-474/150, 3-4=-433/70, 4-5=-284/10

**BOT CHORD** 9-10=-97/431

2-12=-151/371, 3-12=-325/182, 3-10=-38/347, 5-9=-17/336, 5-8=-431/46 **WEBS** 

# NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; 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.
- 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 7 except (jt=lb)
- 7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines.
- 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: 1-2=-60, 2-6=-60, 11-13=-20, 7-10=-20

Concentrated Loads (lb)

Vert: 14=75(F) 15=-25(F=-3, B=-22) 16=2(B) 17=-38(B)

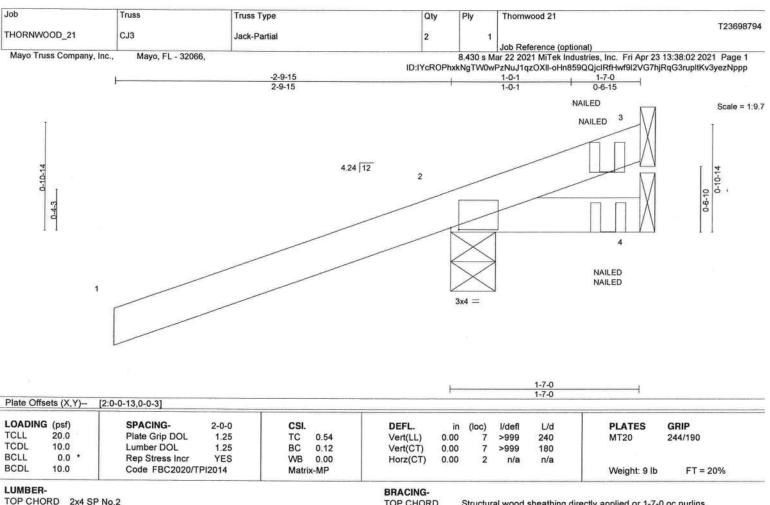


Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

eters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see \*\*ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801





TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 1-7-0 oc purlins.

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

REACTIONS.

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

Max Horz 2=50(LC 12)

Max Uplift 2=-140(LC 12), 4=-194(LC 21), 3=-191(LC 21) Max Grav 2=385(LC 1), 4=106(LC 32), 3=105(LC 32)

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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Corner(3) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) except (jt=lb)

7) "NAILED" indicates 3-10d (0.148"x3") or 2-12d (0.148"x3.25") toe-nails per NDS guidlines. 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: 1-3=-60, 4-5=-20

Concentrated Loads (lb)

Vert: 4=57(F=29, B=29) 3=49(F=25, B=25)



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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



Job Truss Truss Type Qty Thornwood 21 T23698795 THORNWOOD 21 D1GE Roof Special Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066. 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:03 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-GTLXIVQ2UwQIHRVrjSakpLEy?EapaKUv6\_fcV4zNppo 8-4-0 | 10-4-0 Scale: 1/2"=1" 4x4 = 3 6.00 12 10 4x4 = 3-5-0 4x4 > 5x7 =1-4-0 6.00 12 1.5x4 || 1.5x4 4-2-0 8-4-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL. in (loc) I/def L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 0.29 TC Vert(LL) 0.05 7-8 >999 240 MT20 244/190 TCDL 10.0 Lumber DOL 1.25 BC 0.21 Vert(CT) -0.05 7-8 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.10 0.03 Horz(CT) 6 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-AS Weight: 51 lb FT = 20% LUMBER-**BRACING-**

TOP CHORD

BOT CHORD

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

REACTIONS.

8=0-3-8, 6=0-3-8 (size) Max Horz 8=83(LC 11)

Max Uplift 8=-122(LC 12), 6=-122(LC 12) Max Grav 8=450(LC 1), 6=450(LC 1)

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

TOP CHORD 2-8=-410/275, 2-3=-562/351, 3-4=-562/375, 4-6=-410/315 WEBS

3-7=-210/323, 4-7=-220/451, 2-7=-193/451

# 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-2-0, Exterior(2R) 4-2-0 to 7-2-0, Interior(1) 7-2-0 to 10-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 8, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=122. 6=122.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

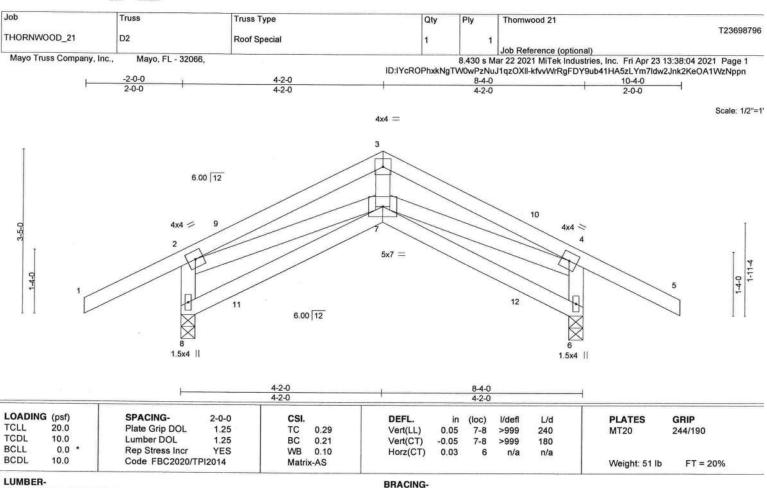
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITE's connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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

\*\*ANSITP11 Quality Criteria, DSB-89 and BCSI Building Collaboration\*\*

\*\*Safety Information\*\*

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





TOP CHORD

BOT CHORD

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

WEBS 2x4 SP No.2

REACTIONS. (size) 8=0-3-8, 6=0-3-8 Max Horz 8=83(LC 11)

Max Uplift 8=-122(LC 12), 6=-122(LC 12) Max Grav 8=450(LC 1), 6=450(LC 1)

FORCES. (ib) - Max. Comp./Max. Ten. - All forces 250 (ib) or less except when shown. TOP CHORD 2-8=-410/275, 2-3=-562/351, 3-4=-562/375, 4-6=-410/315

3-7=-210/323, 4-7=-220/451, 2-7=-193/451 **WEBS** 

# 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-2-0, Exterior(2R) 4-2-0 to 7-2-0, Interior(1) 7-2-0 to 10-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 8, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=122, 6=122.
- 8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied.

Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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ANSUTPH Quality Criteria, DSB-89 and BCSI Building Comp Safety Information

available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Job Truss Truss Type Qty Ply Thornwood 21 T23698797 THORNWOOD\_21 D3 Roof Special Job Reference (optional) Mayo Truss Company, Inc. Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:06 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-g20fxXTxnros8uEQOa7RQzsTFRbjnhDLoytH5PzNppI 10-4-0 Scale = 1:27.2 3 6.00 12 4x4 = 5x7 = 1-11-4 1-4-0 19 6.00 12 1.5x4 > 1.5x4 || VERTICAL LEGS ARE NOT DESIGNED FOR LATERAL LOADS IMPOSED BY SUPPORTS (BEARINGS). LOADING (psf) SPACING-2-0-0 CSI DEFL in (loc) I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.29 Vert(LL) -0.02 6-7 >999 240 MT20 244/190 TCDL 10.0 Lumber DOL 1.25 BC 0.20 Vert(CT) -0.05 6-7 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.10 Horz(CT) 0.03 n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-AS Weight: 53 lb FT = 20% LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 WERS 2x4 SP No.2

BRACING-

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

Rigid ceiling directly applied.

REACTIONS.

(size) 8=0-3-8, 9=0-3-0 Max Horz 8=107(LC 11)

Max Uplift 8=-51(LC 12), 9=-54(LC 12) Max Grav 8=450(LC 1), 9=450(LC 1)

FORCES. (ib) - Max. Comp./Max. Ten. - All forces 250 (ib) or less except when shown. TOP CHORD 2-8=-410/207, 2-3=-564/138, 3-4=-574/160, 6-9=-450/182, 4-6=-410/227

**WEBS** 

3-7=-14/343, 4-7=-29/492, 2-7=0/451

### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-2-0, Exterior(2R) 4-2-0 to 7-2-0, Interior(1) 7-2-0 to 10-4-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) 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.

\* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

6) Bearing at joint(s) 8, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 9.

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



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE MAGE MIN-14 (3 TeV. 5/11W2020 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

ANSUTP!1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

available from Truss Plate Institute, 2670 Crain Highway, Sulte 203 Waldorf, MD 20801



Job Truss Truss Type Qty Ply Thornwood 21 T23698798 THORNWOOD\_21 Roof Special Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:07 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-8Ea18tUZY8wji2pcylegzBOeFrxdW7hU0cdqerzNppk 4x4 = Scale = 1:27.1 2 6.00 12 10 4x4 > 3 12 5x7 = 14-0 4-0 13 6.00 12 1.5x4 > 1.5x4 || VERTICAL LEGS ARE NOT DESIGNED FOR LATERAL 7 LOADS IMPOSED BY SUPPORTS (BEARINGS). LOADING (psf) SPACING-2-0-0 CSL DEFL I/def **PLATES** GRIP L/d TCLL Plate Grip DOL 1.25 TC 0.28 Vert(LL) 0.05 5-6 >999 240 MT20 244/190 TCDL 10.0 Lumber DOL BC 1.25 0.22 Vert(CT) -0.054-5 >999 180 BCLL 0.0 Rep Stress Incr WB YES 0.15 Horz(CT) 0.04 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-AS Weight: 46 lb FT = 20%LUMBER-BRACING-TOP CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied, except end verticals. Rigid ceiling directly applied.

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

BOT CHORD

REACTIONS.

(size) 6=0-3-8, 7=0-3-8 Max Horz 6=89(LC 11)

Max Uplift 6=-68(LC 12), 7=-71(LC 12) Max Grav 6=322(LC 1), 7=322(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-6=-281/236, 1-2=-670/567, 2-3=-670/584, 4-7=-322/284, 3-4=-281/216

**WEBS** 

2-5=-358/340, 3-5=-485/573, 1-5=-441/573

### 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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 4-2-0, Exterior(2R) 4-2-0 to 7-2-0, Interior(1) 7-2-0 to 8-2-4 zone; cantilever left and right exposed; end vertical left and right exposed; 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) 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. 6) Bearing at joint(s) 6, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify

capacity of bearing surface.

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

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

No 68182

No 68182

No 68182

No 68182

Joaquin Velez PE No.68182 OAQUIN VE

Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL-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

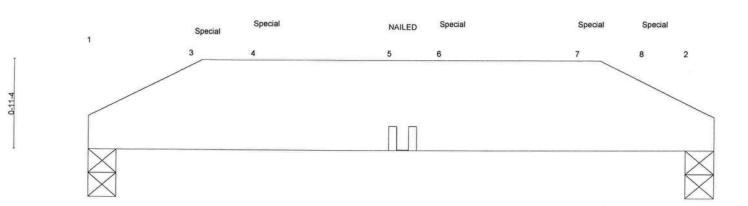
\*\*ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Collaboration\*\*

\*\*Safety Information\*\*

available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Job	Truss	Truss Type	Qty	Ply	Thornwood 21	2000
THORNWOOD_21	GIR2	Hip Girder	1		3 Job Reference (optional)	3698
Mayo Truss, Mayo, FI		,		hxkNgTW0w	8.430 s Mar 22 2021 MiTek Industries, Inc. Tue Apr 27 16:20:57 2021 P WPzNuJ1qzOXII-vrZOjcNfCUAqINPKhbogoMeXeTaqpjNyP4fy9jzMT	
<u> </u>	1-2-8	1	5-3-8		6-6-0	
1	1-2-8		4-1-0		1-2-8	



	1-	1-2-8				5-3-8					6-6-0	
1-2-8			4-1-0							1-2-8		
LOADING (ps	sf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20	.0	Plate Grip DOL	1.25	TC	0.70	Vert(LL)	-0.04	1-2	>999	240	3.5733377.57	, means
CDL 10	.0	Lumber DOL	1.25	BC	0.00	Vert(CT)	-0.05	1-2	>999	180		
	.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL 10	.0	Code FBC2020/T	PI2014	Matri	x-MP		30 (C. 1835)		- 00000	esm <del>a</del> ric	Weight: 93 lb	FT = 20%

LUMBER-

TOP CHORD 2x12 SP No.2

REACTIONS. (lb/size) 1=2785/0-3-8, 2=2719/0-3-8

Max Uplift 1=-656(LC 4), 2=-640(LC 4)

**BRACING-**

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 6-6-0 oc purlins.

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

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

### NOTES-

1) 3-ply truss to be connected together as follows:

Top chords connected with 10d (0.131"x3") nails as follows: 2x12 - 2 rows staggered 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.
- 3) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 4) 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.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* 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 656 lb uplift at joint 1 and 640 lb uplift at joint 2.

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

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 120 lb down and 28 lb up at 1-2-8, 1547 lb down and 364 lb up at 1-10-4, 26 lb down and 6 lb up at 3-3-4, 3115 lb down and 733 lb up at 3-9-8, and 26 lb down and 6 lb up at 5-2-12, and 173 lb down and 41 lb up at 5-10-11 on top chord, and 120 lb up at 1-2-8, 1547 lb down at 1-10-4, 3115 lb down at 3-9-8, and 26 lb up at 5-2-12, and 173 lb down at 5-10-11 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: 1-2=-80

Concentrated Loads (lb)

Vert: 3=-120(F) 4=-1547(B) 5=-26(F) 6=-3115(B) 7=-26(F) 8=-173(B)



Scale: 1'

Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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Design valid for use only with MTek® 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

\*\*ANSI/PHI Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Job Truss Truss Type Qty Ply Thornwood 21 T23698800 THORNWOOD\_21 Jack-Open 29 Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066. 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:10 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-ZpGAmuWRr3IIcWYBdQCNbp04u2v3jWoxjZrUEAzNpph 7-0-0 7-0-0 Scale: 1/2"=1" 6.00 12 3-5-8 0-4-3 3x4 = Plate Offsets (X,Y)-[2:0-0-8,Edge] LOADING (psf) SPACING-2-0-0 CSL DEFL (loc) I/def L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.57 Vert(LL) -0.09 4-7 >969 240 MT20 244/190 TCDL 10.0 Lumber DOL 1.25 BC 0.49 Vert(CT) -0.204-7 >408 180 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-AS FT = 20% Weight: 26 lb LUMBER-BRACING-

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

TOP CHORD BOT CHORD Structural wood sheathing directly applied.

Rigid ceiling directly applied.

REACTIONS.

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

Max Horz 2=120(LC 12)

Max Uplift 3=-42(LC 12), 2=-37(LC 12)

Max Grav 3=181(LC 1), 2=415(LC 1), 4=123(LC 3)

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

### NOTES-

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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



Job Truss Truss Type Qty Ply Thornwood 21 T23698801 THORNWOOD 21 J1A Jack-Open Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:11 2021 Page 1  $ID: IYCROPhxkNgTW0wPzNuJ1qzOXII-1?qY\_EX3cNQ9Ef6NB8jc71ZDTSEnSy24xDb2nczNppg$ 6.00 12 2-10-3 4x6 = 0-4-3 6 2x4 | 3x4 Plate Offsets (X,Y)--[3:0-3-8,Edge] LOADING (psf) SPACING-2-0-0 CSI. DEFL GRIP in (loc) I/defl 1/d PLATES TCLL 20.0 Plate Grip DOL 1.25 TC 0.64 Vert(LL) 0.12 3-5 >675 240 MT20 244/190 TCDI 10.0 Lumber DOL 1.25 BC 0.52 Vert(CT) -0.243-5 >343 180 BCLL 0.0 Rep Stress Incr YES WB 0.00 0.11 Horz(CT) 5 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-AS Weight: 27 lb FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 BRACING-

TOP CHORD BOT CHORD Structural wood sheathing directly applied.

Rigid ceiling directly applied.

REACTIONS.

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

Max Horz 2=120(LC 12)

Max Uplift 4=-33(LC 12), 2=-37(LC 12)

Max Grav 4=168(LC 1), 2=415(LC 1), 5=118(LC 3)

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

### NOTES-

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- 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, 2.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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is always required for stability and to prevent collapse with possible personal injury and properly 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



Truss Truss Type Qty Ply Thomwood 21 T23698802 THORNWOOD\_21 J1B Jack-Open 3 Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:12 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-VCNwBaXiNhY0sphalrErgE6UCshLBPHEAtKbJ2zNppf -2-0-0 2-0-0 Scale = 1:10.1 6.00 12 0-11-7 2 0-6-12 0-4-3 3x4 LOADING (psf) SPACING-2-0-0 CSI. DEFL. **PLATES** GRIP (loc) I/def L/d TCLL 20.0 Plate Grip DOL 1.25 TC 0.26 Vert(LL) 0.00 >999 240 MT20 244/190 TCDL 10.0 Lumber DOL 1 25 BC 0.06 Vert(CT) 0.00 >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: 7 lb FT = 20%LUMBER-BRACING-

TOP CHORD

BOT CHORD

TOP CHORD **BOT CHORD** REACTIONS.

Job

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

Max Horz 2=51(LC 12)

2x4 SP No.2

2x4 SP No.2

Max Uplift 3=-16(LC 1), 2=-101(LC 12), 4=-36(LC 1)

Max Grav 3=19(LC 12), 2=268(LC 1), 4=33(LC 12)

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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.
- 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, 4 except (jt=lb)



Structural wood sheathing directly applied or 1-2-8 oc purlins.

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

Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

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Job Truss Truss Type Qty Thornwood 21 Ply T23698803 THORNWOOD 21 12A Jack-Open Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:13 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-zOxJPwYK8\_gtTzGmJZI4DSeenG\_ewsXNPX48rVzNppe Scale = 1:19.5 1-10-3 6.00 12 10 4x6 < 0-4-3 1.5x4 || 3x4 Plate Offsets (X,Y)--[3:0-3-0,0-2-3] LOADING (psf) SPACING-2-0-0 CSI. DEFL I/defl L/d **PLATES** GRIP in (loc) TCLL 20.0 Plate Grip DOL 1.25 TC 0.34 Vert(LL) 0.04 3 >999 244/190 240 MT20 TCDL 10.0 Lumber DOL 1.25 BC 0.24 Vert(CT) -0.06 3 >955 180 BCLL Rep Stress Incr 0.0 YES WB 0.00 Horz(CT) 0.03 5 n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-AS Weight: 21 lb FT = 20%

### LUMBER-

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

BRACING-

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied.

Rigid ceiling directly applied.

REACTIONS.

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

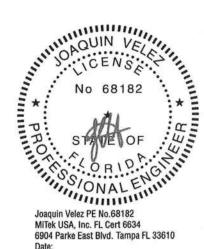
Max Horz 2=96(LC 12)

Max Uplift 4=-17(LC 12), 2=-47(LC 12)

Max Grav 4=107(LC 1), 2=342(LC 1), 5=81(LC 3)

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

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.
- \* 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, 2.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



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April 27,2021

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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



Truss Type Qty Ply Thornwood 21 T23698804 THORNWOOD\_21 J2B Jack-Open 12 1 Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:14 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-RaVhcGZyvlok57rysGGJlfBqifNufJnWdBpiNxzNppd6.00 12 0-10-3 0-10-3 0-4-3 3x4 = LOADING (psf) SPACING-2-0-0 CSI DEFL. in I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.26 Vert(LL) 0.00 >999 240 MT20 244/190 TCDL 10.0 Lumber DOL 1.25 BC 0.05 Vert(CT) 0.00 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) -0.00 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-MP FT = 20%Weight: 7 lb

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

Job

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

2x4 SP No.2

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

Max Horz 2=48(LC 12)

Truss

Max Uplift 3=-29(LC 1), 2=-113(LC 12), 4=-53(LC 1)

Max Grav 3=24(LC 12), 2=281(LC 1), 4=39(LC 12)

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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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, 4 except (jt=lb) 2=113.



Structural wood sheathing directly applied or 1-0-0 oc purlins.

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

MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

MARNING - 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

\*\*ANS/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\*

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



Job Truss Truss Type Qty Ply Thornwood 21 T23698805 THORNWOOD\_21 J3 Jack-Open 9 Job Reference (optional)
8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:15 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-vn33pcaagcwbjHQ9QznYltk0o3iuOm1gsrZFwNzNppc 2-0-0 Scale = 1:14 f 6.00 12 1-10-3 0-4-3 3-0-0 LOADING (psf) SPACING-2-0-0 CSI. I/defl L/d **PLATES** GRIP (loc) 20.0 TCLL Plate Grip DOL 1.25 TC 0.24 Vert(LL) -0.00 >999 240 MT20 244/190 TCDL 10.0 Lumber DOL 1 25 BC 0.07 Vert(CT) -0.01 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-MP Weight: 13 lb FT = 20%

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

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

Max Horz 2=72(LC 12)

Max Uplift 3=-8(LC 12), 2=-63(LC 12)

Max Grav 3=57(LC 1), 2=278(LC 1), 4=47(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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ff; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.



Structural wood sheathing directly applied or 3-0-0 oc purlins.

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

Joaquin Velez PE No.68182 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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Job Truss Type Qty Ply Thornwood 21 T23698806 THORNWOOD 21 J3A Jack-Open 1 Job Reference (optional) Mayo Truss Company, Inc., Mayo, FL - 32066, 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:16 2021 Page 1 ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-NzdR1yaCQv2SKR?L\_hJnq4GAXT3?7Dyp5VloSqzNppb -2-0-0 2-0-0

> 3x4 = 6.00 12 2 1-10-3

1.5x4 || 4x4 =

LOADIN TCLL TCDL	G (psf) 20.0 10.0	SPACING- Plate Grip DOL Lumber DOL	2-0-0 1.25 1.25	CSI. TC BC	0.30 0.01	DEFL. Vert(LL) Vert(CT)	in -0.00 -0.00	(loc) 5	I/defl >999 >999	L/d 240 180	PLATES MT20	<b>GRIP</b> 244/190
BCLL BCDL	0.0 * 10.0	Rep Stress Incr Code FBC2020/T	YES	WB	0.02 x-MP	Horz(CT)	-0.00	3	n/a	n/a	Weight: 10 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 **WEBS** 2x4 SP No.2 BRACING-

TOP CHORD

Structural wood sheathing directly applied or 1-0-0 oc purlins,

except end verticals.

**BOT CHORD** 

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

REACTIONS.

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

Max Horz 5=42(LC 11)

Max Uplift 5=-93(LC 12), 3=-139(LC 1), 4=-45(LC 12) Max Grav 5=327(LC 1), 3=85(LC 12), 4=22(LC 10)

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

TOP CHORD 2-5=-318/211

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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) 5, 4 except (jt=lb)



Scale = 1:12.3

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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



Job Truss Truss Type Qty Thomwood 21 Ply T23698807 THORNWOOD\_21 J<sub>3</sub>B Jack-Open Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:17 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-r9BpElbqBDAJyaaXYOq0NlpLjtPjrg4zK92M\_GzNppa 3-0-0 2-0-0 Scale = 1:17.3 1.5x4 || 3 6.00 12 3x4 = 2 99 1.5x4 = 3x4 = 1.5x4 || LOADING (psf) SPACING-2-0-0 CSI. DEFL. **PLATES** GRIP I/defl L/d in (loc) TCLL 20.0 Plate Grip DOL 1.25 244/190 TC 0.28 Vert(LL) -0.01 >999 240 MT20

LUMBER-

TCDL

BCLL

BCDL

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

10.0

10.0

0.0

WEBS 2x4 SP No.2

BRACING-

Vert(CT)

Horz(CT)

TOP CHORD

-0.01

0.00

Structural wood sheathing directly applied or 3-0-0 oc purlins,

Weight: 20 lb

FT = 20%

except end verticals.

>999

n/a

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

180

n/a

REACTIONS.

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

Code FBC2020/TPI2014

Max Horz 8=95(LC 12)

Max Uplift 8=-39(LC 12), 4=-18(LC 12)

Lumber DOL

Rep Stress Incr

Max Grav 8=290(LC 1), 4=65(LC 17), 5=16(LC 3)

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

TOP CHORD 2-8=-270/149

### NOTES-

Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

BC

WB

Matrix-MP

0.04

0.03

- 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.

1.25

YES

- 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) 8, 4.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

April 27,2021

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



Job Truss Truss Type Qty Ply Thomwood 21 T23698808 THORNWOOD\_21 14 Jack-Open Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:18 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-KMICSdcSyXJ9ak9j56LFwVMWmHh4a7m6YpnvWizNppZ Scale = 1:19.5 6.00 12 0-4-3 Plate Offsets (X,Y)--[2:0-4-0,0-0-4] LOADING (psf) SPACING-DEFL. **PLATES** GRIP 2-0-0 (loc) I/def TCLL 20.0 Plate Grip DOL 1.25 TC 0.26 Vert(LL) -0.02 >999 240 MT20 244/190 TCDL Vert(CT) 100 Lumber DOL 1.25 BC 0.23 -0.05 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 3 n/a n/a BCDL Code FBC2020/TPI2014 10.0 Matrix-AS Weight: 19 lb FT = 20% BRACING-

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

Rigid ceiling directly applied.

LUMBER-

REACTIONS.

TOP CHORD 2x4 SP No.2

**BOT CHORD** 2x4 SP No.2

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

Max Horz 2=96(LC 12)

Max Uplift 3=-26(LC 12), 2=-47(LC 12)

Max Grav 3=121(LC 1), 2=342(LC 1), 4=86(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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 4-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) 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.
- \* 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.
- 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

April 27,2021

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ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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Job Truss Truss Type Qty Thornwood 21 Ply T23698809 THORNWOOD\_21 J4C Jack-Open Job Reference (optional) 8.430 s Mar 22 2021 MiTek Industries, Inc. Fri Apr 23 13:38:19 2021 Page 1 Mayo Truss Company, Inc., Mayo, FL - 32066, ID:IYcROPhxkNgTW0wPzNuJ1qzOXII-oYJafzd5jqR0BukwfpsUSjuh1g1HJa0FnTXT39zNppY 4-9-0 Scale = 1:17.1 6.00 12 0-5-11 2x4 = 4-9-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defl L/d **PLATES** GRIP (loc) TCLL 20.0 Plate Grip DOL 1.25 0.03 MT20 244/190 TC 0.29 Vert(LL) 3-6 >999 240 TCDL 10.0 Lumber DOL 1.25 BC 0.23 Vert(CT) -0.05 3-6 >999 180

LUMBER-

BCLL

BCDL

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

0.0

10.0

BRACING-

Horz(CT)

0.01

TOP CHORD BOT CHORD Structural wood sheathing directly applied

n/a

Weight: 15 lb

FT = 20%

Rigid ceiling directly applied.

REACTIONS.

(size) 1=Mechanical, 2=Mechanical, 3=Mechanical

Max Horz 1=56(LC 12)

Max Uplift 2=-33(LC 12)

Max Grav 1=188(LC 1), 2=128(LC 1), 3=87(LC 3)

Rep Stress Incr

Code FBC2020/TPI2014

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=6.0psf; BCDL=6.0psf; h=15ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (directional) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 4-8-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

WB

Matrix-AS

0.00

- 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.

YES

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



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April 27,2021

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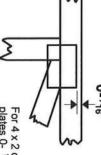


## Symbols

# PLATE LOCATION AND ORIENTATION



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



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

requir

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 × 4

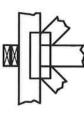
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

# LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

### BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur.

Min size shown is for crushing only

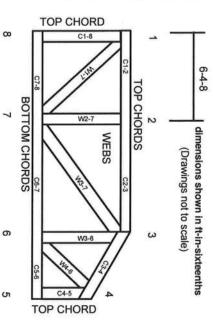
## Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.

ANSI/TPI1: DSB-89:

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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

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

# General Safety Notes

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

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