



Lot/Block: N/A

RE: 2777223 - WCH - ROACH RES.

MiTek USA, Inc. 6904 Parke East Blvd. Tampa, FL 33610-4115

Site Information:

Customer Info: Wade Custom Homes Project Name: Roach Res. Model: Custom

Subdivision: N/A

Address: 409 Buffalo Court, N/A

City: Columbia Cty State: FL

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

Name: License #:

Address:

City: State:

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

Design Code: FBC2020/TPI2014 Design Program: MiTek 20/20 8.4

Wind Code: ASCE 7-16 Wind Speed: 130 mph Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 12 individual, Truss Design Drawings and 0 Additional Drawings. With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T24033829	CJ01	5/20/21
2 3	T24033830	CJ03	5/20/21
3	T24033831	CJ05	5/20/21
4	T24033832	EJ01	5/20/21
5	T24033833	HJ10	5/20/21
6	T24033834	T01	5/20/21
7	T24033835	T02	5/20/21
8	T24033836	T03	5/20/21
9	T24033837	T04	5/20/21
10	T24033838	T05	5/20/21
11	T24033839	T06	5/20/21
12	T24033840	T07	5/20/21



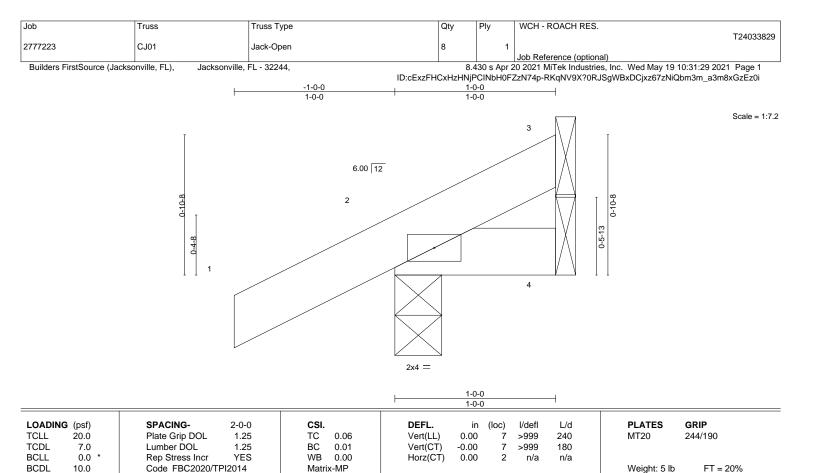
The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Jacksonville.

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.





LUMBER-

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

**TOP CHORD** BOT CHORD

Structural wood sheathing directly applied or 1-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing.

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

Max Horz 2=32(LC 12)

Max Uplift 3=-6(LC 12), 2=-39(LC 12)

Max Grav 3=9(LC 1), 2=118(LC 1), 4=13(LC 3)

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

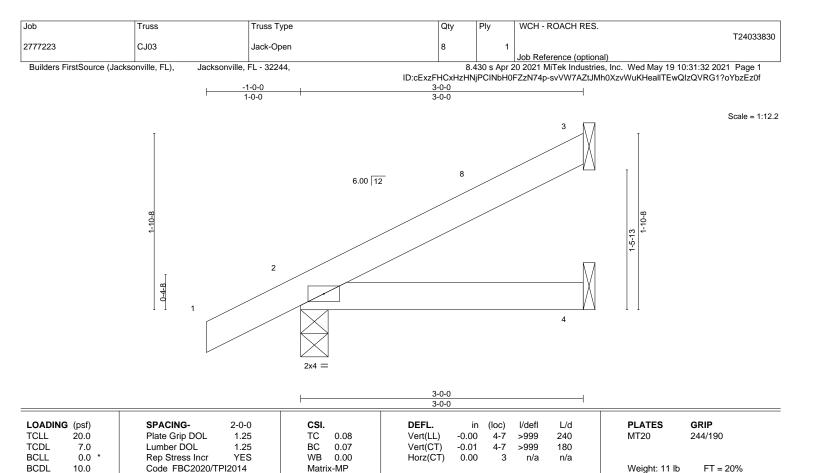
### NOTES-

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



Date:





LUMBER-

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

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

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

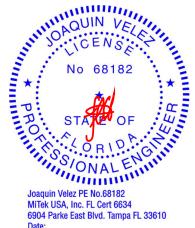
Max Horz 2=65(LC 12)

Max Uplift 3=-38(LC 12), 2=-41(LC 12), 4=-1(LC 12) Max Grav 3=65(LC 1), 2=172(LC 1), 4=51(LC 3)

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

### NOTES-

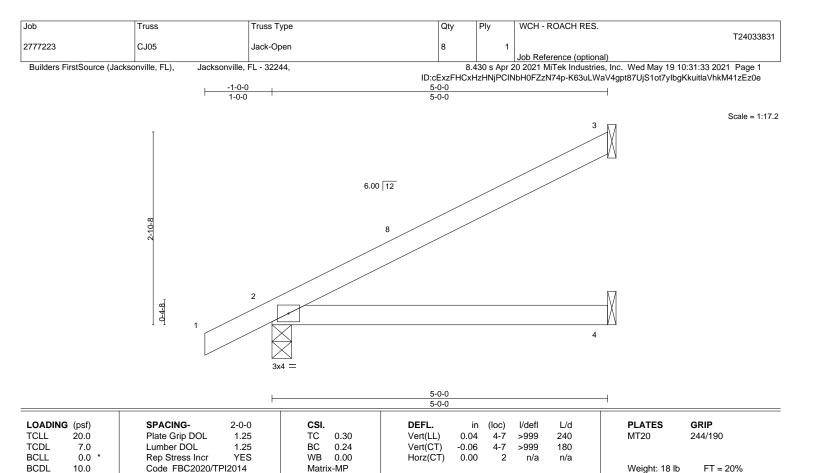
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II: Exp B; Encl. GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior(1) 2-0-0 to 2-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60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



Date:

May 20,2021





LUMBER-

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

**TOP CHORD** BOT CHORD

Structural wood sheathing directly applied or 5-0-0 oc purlins.

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

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

Max Horz 2=100(LC 12)

Max Uplift 3=-68(LC 12), 2=-51(LC 12), 4=-1(LC 12) Max Grav 3=116(LC 1), 2=242(LC 1), 4=89(LC 3)

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

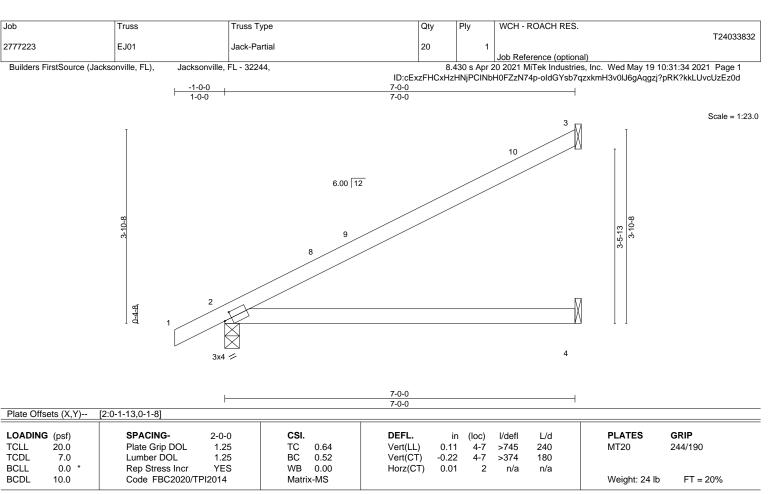
### NOTES-

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



Date:





**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=129(LC 12) Max Uplift 3=-87(LC 12), 2=-63(LC 12)

Max Grav 3=166(LC 1), 2=315(LC 1), 4=126(LC 3)

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

### NOTES-

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

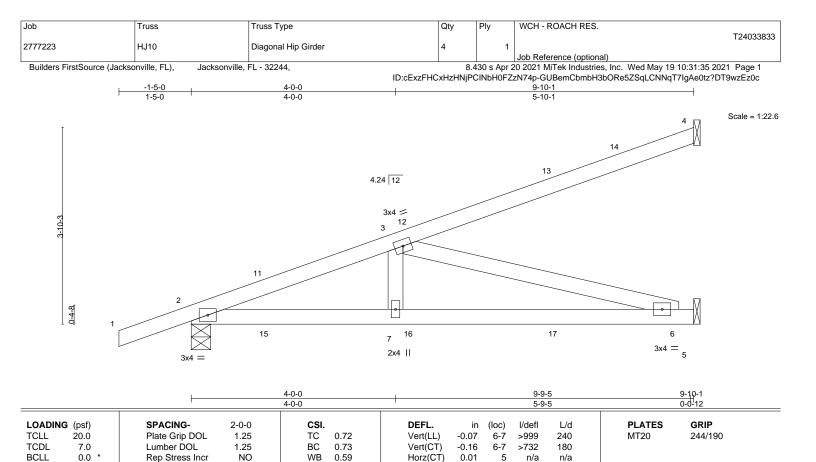


Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

Date:





**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

BCDL

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

2x4 SP No.3 WFBS

10.0

REACTIONS.

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

Code FBC2020/TPI2014

Max Horz 2=137(LC 4)

Max Uplift 4=-88(LC 4), 2=-166(LC 4), 5=-84(LC 8) Max Grav 4=167(LC 1), 2=485(LC 1), 5=301(LC 1)

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

TOP CHORD 2-3=-926/264

**BOT CHORD** 2-7=-342/859 6-7=-342/859 3-7=0/290, 3-6=-889/354 WEBS

### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

Matrix-MS

- 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, 5 except (jt=lb) 2 = 166.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 54 lb down and 9 lb up at 1-6-1, 54 lb down and 9 lb up at 1-6-1, 23 lb down and 41 lb up at 4-4-0, 23 lb down and 41 lb up at 4-4-0, and 43 lb down and 80 lb up at 7-1-15, and 43 lb down and 80 lb up at 7-1-15 on top chord, and 7 lb down and 4 lb up at 1-6-1, 7 lb down and 4 lb up at 1-6-1, 21 lb down and 10 lb up at 4-4-0, 21 lb down and 10 lb up at 4-4-0, and 40 lb down and 16 lb up at 7-1-15, and 40 lb down and 16 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 5-8=-20

Concentrated Loads (lb)

Vert: 12=-1(F=-1, B=-1) 13=-79(F=-39, B=-39) 15=8(F=4, B=4) 16=-15(F=-8, B=-8) 17=-66(F=-33, B=-33)



Weight: 43 lb

Structural wood sheathing directly applied or 5-9-6 oc purlins.

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

FT = 20%

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

May 20,2021

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

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

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



Truss Type Ply WCH - ROACH RES. Job Qty Truss T24033834 2777223 T01 2 Hip Girder Job Reference (optional) 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:37 2021 Page 1 Builders FirstSource (Jacksonville, FL). Jacksonville, FL - 32244. ID:cExzFHCxHzHNjPCINbH0FZzN74p-CtJOBud07uJJdloUhtspHoSDox3teXtAQJiZDpzEz0a 19-8-2 24-0-0 27-1-1 31-0-0 32-0-0 1-0-0

4-2-2

4-3-14

3-1-1

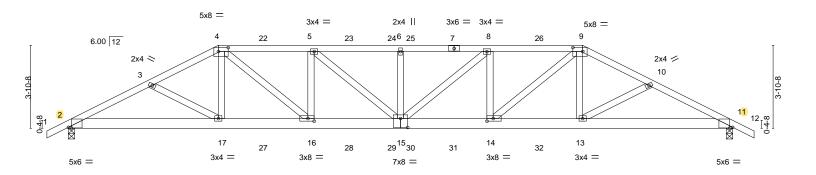
Structural wood sheathing directly applied or 2-4-14 oc purlins.

Rigid ceiling directly applied or 7-7-2 oc bracing.

4-2-2

Scale = 1:53.8

3-10-15



ı		7-0-0	11-3-14	15-6-0	19-8-2	24-0-0	31-0-0	
	I	7-0-0	4-3-14	4-2-2	4-2-2	4-3-14	7-0-0	
Plate Offse	ets (X,Y)	[2:0-1-11,0-0-6], [4:0-5-8	,0-2-4], [9:0-5-8,0	0-2-4], [11:0-1-11,0-0-6	], [14:0-3-8,0-1-8], [15:0-4-0	),0-5-0], [16:0-3-8,0-1-8]		
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL. in	(loc) I/defl L/d	PLATES GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC 0.48	Vert(LL) -0.29	15 >999 240	MT20 244/190	
TCDL	7.0	Lumber DOL	1.25	BC 0.37	Vert(CT) -0.53	15 >696 180		
BCLL	0.0 *	Rep Stress Incr	NO	WB 0.70	Horz(CT) 0.11	11 n/a n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matrix-MS			Weight: 188 lb FT = 20	)%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

1-0-0

3-10-15

3-1-1

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

4-7.7-9: 2x4 SP M 31

BOT CHORD 2x6 SP M 26 2x4 SP No.3 **WEBS** 

REACTIONS. (size) 2=0-3-8, 11=0-3-8

Max Horz 2=60(LC 8)

Max Uplift 2=-741(LC 8), 11=-765(LC 9) Max Grav 2=2388(LC 1), 11=2439(LC 1)

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

2-3=-4856/1538, 3-4=-4684/1488, 4-5=-5569/1800, 5-6=-6032/1920, 6-8=-6032/1920, TOP CHORD

11-3-14

4-3-14

8-9=-5620/1813, 9-10=-4794/1540, 10-11=-4967/1590

**BOT CHORD** 2-17=-1374/4307, 16-17=-1283/4187, 15-16=-1726/5569, 14-15=-1741/5620,

13-14=-1282/4286, 11-13=-1360/4405

**WEBS** 4-17=-125/659, 4-16=-638/1828, 5-16=-912/398, 5-15=-241/644, 6-15=-507/262,

8-15=-197/568, 8-14=-865/369, 9-14=-593/1755, 9-13=-124/658

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) except (jt=lb) 2=741, 11=765,
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 131 lb down and 91 lb up at 7-0-0, 112 lb down and 91 lb up at 9-0-12, 112 lb down and 91 lb up at 11-0-12, 112 lb down and 91 lb up at 13-0-12, 112 lb down and 87 lb up at 15-0-12, 112 lb down and 87 lb up at 15-11-4, 112 lb down and 91 lb up at 17-11-4, 112 lb down and 91 lb up at 19-11-4, and 112 lb down and 91 lb up at 21-11-4, and 250 lb down and 185 lb up at 24-0-0 on top chord, and 340 lb down and 133 lb up at 7-0-0, 86 lb down and 20 lb up at 9-0-12, 86 lb down and 20 lb up at 11-0-12, 86 lb down and 20 lb up at 13-0-12, 86 lb down and 20 lb up at 15-0-12, 86 lb down and 20 lb up at 15-11-4, 86 lb down and 20 lb up at 17-11-4, 86 lb down and 20 lb up at 19-11-4, and 86 lb down and 20 lb up at 21-11-4, and 340 lb down and 133 lb up at 23-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### No 6818 No 6818 No 6818 No 6818 Day Joaquin Velez PE No.6818 JOAQUIN VE 68182 Joaquin Velez PE No.68182

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

May 20,2021

### CAARUGASE(S)geStandard

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

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

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



Job	Truss	Truss Type	Qty	Ply	WCH - ROACH RES.
					T24033834
2777223	T01	Hip Girder	2	1	
					Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:37 2021 Page 2 ID:cExzFHCxHzHNjPCINbH0FZzN74p-CtJOBud07uJJdloUhtspHoSDox3teXtAQJiZDpzEz0a

### LOAD CASE(S) Standard

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

Vert: 1-4=-54, 4-9=-54, 9-12=-54, 2-11=-20

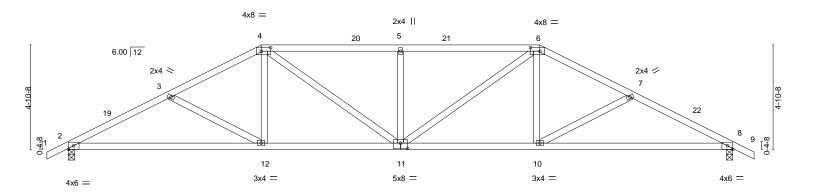
Concentrated Loads (lb)

Vert: 4=-112(F) 7=-112(F) 9=-203(F) 17=-340(F) 16=-67(F) 5=-112(F) 8=-112(F) 14=-67(F) 13=-340(F) 22=-112(F) 23=-112(F) 24=-112(F) 25=-112(F) 26=-112(F) 27=-67(F) 28=-67(F) 29=-67(F) 30=-67(F) 31=-67(F) 32=-67(F)



WCH - ROACH RES. Job Truss Truss Type Qtv Plv T24033835 2777223 T02 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:38 2021 Page 1 Jacksonville, FL - 32244. ID:cExzFHCxHzHNjPCINbH0FZzN74p-g3snODeeuCRAFuNgFbO2q0?OQLIaN5qJfzS7IFzEz0Z 22-0-0 26-2-8 31-0-0 32-0-0 1-0-0 1-0-0 15-6-0 4-9-8 4-2-8 6-6-0 6-6-0 4-2-8 4-9-8

Scale = 1:53.8



L		9-0-0		15-6	0		22-0-0				31-0-0	
		9-0-0	ı ı	6-6-	0	1	6-6-0		ı,		9-0-0	I .
Plate Offse	ets (X,Y)	[4:0-5-4,0-2-0], [6:0-5-4,0-	2-0], [11:0-4	-0,0-3-0]								
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	0.49	Vert(LL)	-0.15 1	2-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.33 1	2-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB (	0.20	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code FBC2020/TF	PI2014	Matrix-	MS						Weight: 155 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

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

Max Horz 2=75(LC 12)

Max Uplift 2=-269(LC 12), 8=-269(LC 13) Max Grav 2=1201(LC 1), 8=1201(LC 1)

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

2-3=-2134/478, 3-4=-1876/399, 4-5=-1993/457, 5-6=-1993/457, 6-7=-1876/400, TOP CHORD

7-8=-2134/478

BOT CHORD 2-12=-436/1883, 11-12=-292/1636, 10-11=-234/1636, 8-10=-361/1883 **WEBS** 3-12=-292/163, 4-12=-29/395, 4-11=-174/532, 5-11=-404/196, 6-11=-174/532,

6-10=-29/395, 7-10=-292/163

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-1-3, Interior(1) 2-1-3 to 9-0-0, Exterior(2R) 9-0-0 to 13-4-10, Interior(1) 13-4-10 to 22-0-0, Exterior(2R) 22-0-0 to 26-4-7, Interior(1) 26-4-7 to 32-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) except (jt=lb) 2=269, 8=269.



Structural wood sheathing directly applied or 3-7-4 oc purlins.

Rigid ceiling directly applied or 8-11-2 oc bracing.

6904 Parke East Blvd. Tampa FL 33610 Date:

May 20,2021

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 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 sand truss systems, see

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



Ply WCH - ROACH RES. Job Truss Truss Type Qtv T24033836 2777223 T03 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:39 2021 Page 1 Jacksonville, FL - 32244. ID:cExzFHCxHzHNjPCINbH0FZzN74p-9FQ9cZeGfWZ1t2ysolvHNDYZBket6MDTtdBglhzEz0Y

15-6-0

4-6-0

5-0-6

20-0-0

4-6-0

25-4-1

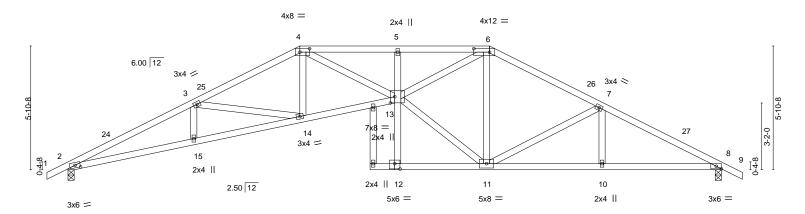
5-4-1

Scale = 1:54.7

32-0-0 1-0-0

31-0-0

5-7-15



		5-11-10	11-0-0		5-6-0 20			-4-1	31-0-0	
		5-11-10	5-0-6	3-4-0 '1	1-2-0 ' 4-	6-0	5-	-4-1	5-7-15	
Plate Offse	ets (X,Y)	[2:0-3-0,0-1-7], [4:0	-5-8,0-2-0], [6:0-9-0,0	)-2-0], [8:0-2-15,Edge], [	[12:0-3-0,0-3-0],	13:0-2-8,0-3	i-8]			
				-						
LOADING	(psf)	SPACING-	2-0-0	CSI.	DEFL.	in (	loc) I/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip D	OL 1.25	TC 0.49	Vert(LL)	-0.31	13 >999	240	MT20	244/190
TCDL	7.0	Lumber DOL	. 1.25	BC 0.78	Vert(CT	-0.58 13	3-14 >645	180		
BCLL	0.0 *	Rep Stress I	ncr YES	WB 0.96	Horz(CT	0.34	8 n/a	n/a		
BCDL	10.0	Code FBC2	020/TPI2014	Matrix-MS	,	•			Weight: 170 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

1-0-0

5-11-10

5-11-10

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

5-12,12-16: 2x4 SP No.3

WEBS 2x4 SP No.3

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

Max Horz 2=89(LC 16)

Max Uplift 2=-267(LC 12), 8=-265(LC 13) Max Grav 2=1201(LC 1), 8=1201(LC 1)

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

2-3=-3397/731, 3-4=-2806/561, 4-5=-3687/706, 5-6=-3655/700, 6-7=-1713/386, TOP CHORD

7-8=-2162/449

**BOT CHORD**  $2-15 = -682/3044,\ 14-15 = -682/3054,\ 13-14 = -431/2519,\ 10-11 = -334/1884,\ 8-10 = -334/1884$ WEBS

3-14=-548/250, 4-14=-64/374, 4-13=-235/1375, 11-13=-244/1768, 6-13=-422/2523,

6-11=-740/143, 7-11=-476/197

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-1-3. Interior(1) 2-1-3 to 11-0-0, Exterior(2R) 11-0-0 to 15-7-12, Interior(1) 15-7-12 to 20-0-0, Exterior(2R) 20-0-0 to 24-4-10, Interior(1) 24-4-10 to 32-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=267, 8=265,



Structural wood sheathing directly applied or 2-8-9 oc purlins.

Rigid ceiling directly applied or 7-1-14 oc bracing. Except:

10-0-0 oc bracing: 12-13

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

May 20,2021

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

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



Qty Ply WCH - ROACH RES. Job Truss Truss Type T24033837 2777223 T04 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:41 2021 Page 1 Jacksonville, FL - 32244. ID:cExzFHCxHzHNjPCINbH0FZzN74p-5eYv0FgWB7pl6M5FwjxlSedvfYKLaMSmLwgnMazEz0W <u>5-1</u>1-10

15-6-0

4-6-0

20-0-0

4-6-0

. 25-0-6

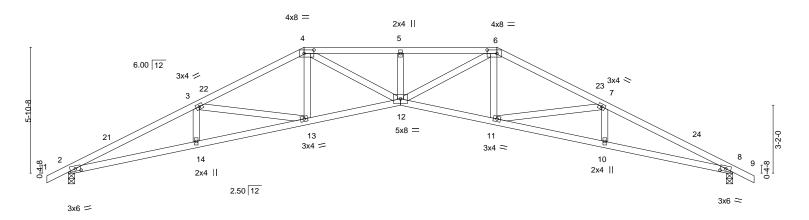
5-0-6

Scale = 1:53.8

32-0-0 1-0-0

31-0-0

5-11-10



		5-11-10	11-0-0	15-6-0	20-0-0	25-0-6	31-0-0
		5-11-10	5-0-6	4-6-0	4-6-0	5-0-6	5-11-10
Plate Offs	ets (X,Y)	[2:0-3-0,0-1-7], [4:0-5-8	3,0-2-0], [6:0-5-8,	0-2-0], [8:0-3-0,0-1-7]			
LOADING	(psf)	SPACING-	2-0-0	CSI.	<b>DEFL.</b> in (	loc) l/defl L/d	PLATES GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.49	Vert(LL) -0.36	12 >999 240	MT20 244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.78	Vert(CT) -0.67	12 >557 180	
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.53	Horz(CT) 0.42	8 n/a n/a	
BCDL	10.0	Code FBC2020	/TPI2014	Matrix-MS	. ,		Weight: 146 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

1-0-0

5-11-10

TOP CHORD 2x4 SP No.2 2x4 SP No 2 **BOT CHORD** WFBS 2x4 SP No.3

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

Max Horz 2=89(LC 12)

Max Uplift 2=-266(LC 12), 8=-266(LC 13) Max Grav 2=1201(LC 1), 8=1201(LC 1)

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

2-3=-3398/727, 3-4=-2804/557, 4-5=-3692/703, 5-6=-3692/703, 6-7=-2804/539, TOP CHORD

7-8=-3398/664

BOT CHORD 2-14=-679/3045, 13-14=-679/3054, 12-13=-428/2520, 11-12=-351/2520, 10-11=-536/3054,

11-0-0

5-0-6

8-10=-535/3045

WEBS 3-13=-550/250, 4-13=-62/355, 4-12=-235/1393, 6-12=-293/1393, 6-11=-63/355,

7-11=-550/255

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-1-3. Interior(1) 2-1-3 to 11-0-0, Exterior(2R) 11-0-0 to 15-6-0, Interior(1) 15-6-0 to 20-0-0, Exterior(2R) 20-0-0 to 24-4-10, Interior(1) 24-4-10 to 32-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) 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) Bearing at joint(s) 2, 8 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=266, 8=266,



Structural wood sheathing directly applied or 2-8-15 oc purlins.

Rigid ceiling directly applied or 7-2-2 oc bracing.

6904 Parke East Blvd. Tampa FL 33610 Date:

May 20,2021

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

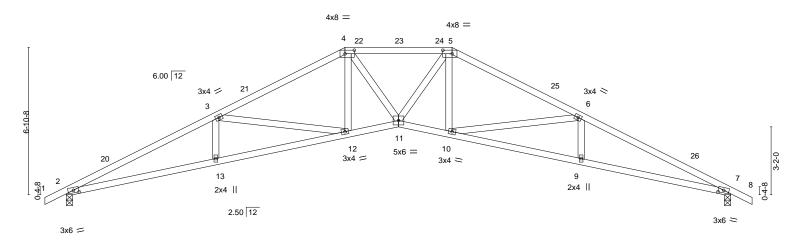
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or 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 sand truss systems, see

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



Qty WCH - ROACH RES. Job Truss Truss Type Plv T24033838 2777223 T05 2 Hip Job Reference (optional) 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:42 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, ID:cExzFHCxHzHNjPCINbH0FZzN74p-Zq6HEbh9yRxckWgRUQS\_sA2SygZJpEvaaQKu0zEz0V 18-0-0 24-0-5 31-0-0 32-0-0 1-0-0 1-0-0 6-11-11 6-0-5 5-0-0 6-0-5 6-11-11

Scale = 1:53.8



1		6-11-11	13	-0-0	15-6-0	18-0-0	1	24	4-0-5		1 31-0-0	
ŗ		6-11-11	6-	0-5	2-6-0	2-6-0	1	6	6-0-5		6-11-11	1
Plate Offse	ets (X,Y)	[2:0-3-0,0-1-7], [4:0-5-4,0	0-2-0], [5:0-5-4,0	0-2-0], [7:0-3-0,0-	·1-7]							
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 0.6	61	Vert(LL)	-0.29	11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.7	8	Vert(CT)	-0.54 12	2-13	>695	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.5	6	Horz(CT)	0.36	7	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matrix-MS	3	. ,					Weight: 147 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

REACTIONS. (size) 2=0-3-8, 7=0-3-8

Max Horz 2=104(LC 12)

Max Uplift 2=-263(LC 12), 7=-263(LC 13) Max Grav 2=1201(LC 1), 7=1201(LC 1)

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

TOP CHORD 2-3=-3364/712, 3-4=-2563/490, 4-5=-2566/515, 5-6=-2563/497, 6-7=-3364/644

BOT CHORD 2-13=-672/3015, 12-13=-672/3018, 11-12=-350/2279, 10-11=-291/2279, 9-10=-520/3018,

7-9=-520/3015

WEBS 3-12=-747/320, 4-12=-80/405, 4-11=-98/578, 5-11=-143/578, 5-10=-80/405,

6-10=-747/325

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-1-3, Interior(1) 2-1-3 to 13-0-0, Exterior(2R) 13-0-0 to 17-4-10, Interior(1) 17-4-10 to 18-0-0, Exterior(2R) 18-0-0 to 22-4-10, Interior(1) 22-4-10 to 32-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) Bearing at joint(s) 2, 7 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=263, 7=263,



Structural wood sheathing directly applied or 2-8-15 oc purlins.

Rigid ceiling directly applied or 7-1-11 oc bracing.

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

May 20,2021

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

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



Qty WCH - ROACH RES. Job Truss Truss Type Plv T24033839 2777223 T06 2 Hip Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:43 2021 Page 1 Jacksonville, FL - 32244.

4-10-9

15-0-0

4-10-9

4-4-12

ID:cExzFHCxHzHNjPCINbH0FZzN74p-11ggRxhnjk4TLgFe18zDX3iHsM0j2Ls2oE9uRSzEz0U 20-10-9 16-0-0 1-0-0 31-0-0 32-0-0 1-0-0

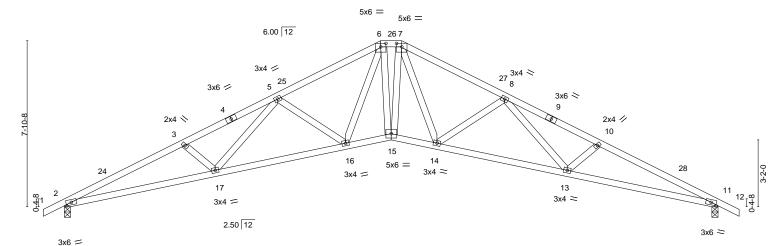
Structural wood sheathing directly applied or 2-11-13 oc purlins.

Rigid ceiling directly applied or 6-11-13 oc bracing.

4-4-12

Scale = 1:54.6

5-8-11



	L	7-1-13	1	13-3-15	15-6-0	17-8-1	1	23-10-3		31-0-0	
	1	7-1-13	1	6-2-3	2-2-1	2-2-0	1	6-2-3		7-1-13	ı
Plate Offsets	s (X,Y)	[2:0-3-0,0-1-7], [6:0-3-0,0-2	·0], [7:0-3-0,0	0-2-0], [11:0-3-0,0-1-	7]						
LOADING (	psf)	SPACING-	2-0-0	CSI.		DEFL.	in (lo	c) I/defl	L/d	PLATES	GRIP
TCLL 2	20.0	Plate Grip DOL	1.25	TC 0.38		Vert(LL)	-0.28	15 >999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.79		Vert(CT)	-0.54 16-	17 >693	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.22		Horz(CT)	0.35	11 n/a	n/a		
BCDL 1	0.0	Code FBC2020/TPI	2014	Matrix-MS		, ,				Weight: 160 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

BOT CHORD

<del>1-0-0</del>

5-8-11

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

2x4 SP No.3 WFBS

> Max Horz 2=119(LC 12) Max Uplift 2=-260(LC 12), 11=-260(LC 13)

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

Max Grav 2=1201(LC 1), 11=1201(LC 1)

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

2-3=-3395/735, 3-5=-3203/699, 5-6=-2477/493, 6-7=-2016/413, 7-8=-2477/472, TOP CHORD

8-10=-3203/612, 10-11=-3395/649 2-17=-718/3049, 16-17=-522/2620, 15-16=-269/2011, 14-15=-250/2011, 13-14=-380/2620,

11-13=-519/3049

5-17=-130/462, 5-16=-503/238, 6-16=-172/568, 6-15=-96/476, 7-15=-137/476, 7-14=-172/568, 8-14=-503/240, 8-13=-136/462

### 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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-1-3, Interior(1) 2-1-3 to 15-0-0, Exterior(2E) 15-0-0 to 16-0-0, Exterior(2R) 16-0-0 to 20-4-10, Interior(1) 20-4-10 to 32-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) 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) Bearing at joint(s) 2, 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=260, 11=260.



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

May 20,2021

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

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



Qty Ply WCH - ROACH RES. Job Truss Truss Type T24033840 2777223 T07 2 Scissor Job Reference (optional) 8.430 s Apr 20 2021 MiTek Industries, Inc. Wed May 19 10:31:44 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244.

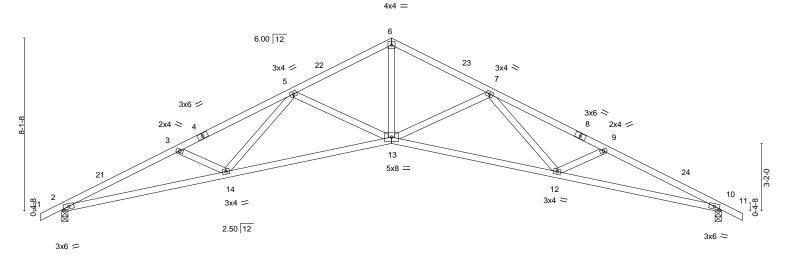
ID:cExzFHCxHzHNjPCINbH0FZzN74p-VDE2fHiPU2CJzpqqbrUS4HFQ\_ILInhFC1uvRzvzEz0T

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

Rigid ceiling directly applied or 6-10-2 oc bracing.

10-10-11 20-1-5 31-0-0 32-0-0 1-0-0 5-4-2 4-7-5 4-7-5 5-4-2 5-6-8

Scale = 1:54.1



	7-6-10	7-9-0	7-9-6	7-0-10
Plate Offsets (X,Y)	[2:0-3-0,0-1-7], [10:0-3-0,0-1-7]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0 TCDL 7.0	Plate Grip DOL 1.25 Lumber DOL 1.25	TC 0.48 BC 0.83	Vert(LL) -0.30 13-14 >999 240 Vert(CT) -0.63 13-14 >589 180	MT20 244/190
BCLL 0.0 * BCDL 10.0	Rep Stress Incr YES Code FBC2020/TPI2014	WB 0.66 Matrix-MS	Horz(CT) 0.36 10 n/a n/a	Weight: 145 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

1-0-0 1-0-0

5-6-8

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

WFBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 10=0-3-8 Max Horz 2=-123(LC 13)

Max Uplift 2=-259(LC 12), 10=-259(LC 13) Max Grav 2=1201(LC 1), 10=1201(LC 1)

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

2-3=-3425/753, 3-5=-3152/659, 5-6=-2224/431, 6-7=-2224/427, 7-9=-3152/572, TOP CHORD

9-10=-3425/664

2-14=-741/3083, 13-14=-496/2531, 12-13=-363/2531, 10-12=-536/3083 BOT CHORD

**WEBS** 6-13=-296/1720, 7-13=-609/276, 7-12=-116/549, 9-12=-283/196, 5-13=-609/274,

5-14=-112/549, 3-14=-283/193

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-1-3, Interior(1) 2-1-3 to 15-6-0, Exterior(2R) 15-6-0 to 18-7-3, Interior(1) 18-7-3 to 32-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip 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) 2, 10 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) 2=259, 10=259.



6904 Parke East Blvd. Tampa FL 33610 Date:

May 20,2021

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

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

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

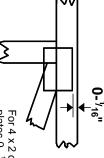


### Symbols

## 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.

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

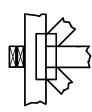
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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**



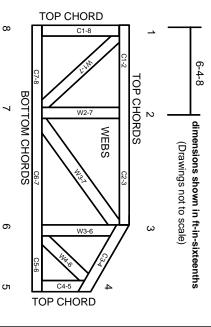
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-89:

## **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.

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- 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.

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- 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.

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- 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.
- 17. 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.
- 20. 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.