



RE: 2809728 - HOUSECRAFT - SORTO RES.

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

**Site Information:** 

Customer Info: Housecraft Homes Project Name: Sorto Res. Model: Custom

Lot/Block: N/A Subdivision: N/A

Address: PID # R04-060-129, 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 21 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	T24168197	CJ01	6/1/21
2 3 4 5 6 7 8	T24168198 T24168199	CJ03 CJ03A	6/1/21 6/1/21
4	T24168200	CJ05	6/1/21
5	T24168201	CJ05A	6/1/21
7	T24168202 T24168203	EJ01 EJ02	6/1/21 6/1/21
8	T24168204	EJ03	6/1/21
9 10	T24168205 T24168206	HJ05 HJ10	6/1/21 6/1/21
11	T24168207	HJ10A	6/1/21
12	T24168208	T01	6/1/21
13 14	T24168209 T24168210	T02 T03	6/1/21 6/1/21
15	T24168211	T04	6/1/21
16 17	T24168212 T24168213	T05 T06	6/1/21 6/1/21
18	T24168214	T07	6/1/21
19	T24168215	T08	6/1/21
20 21	T24168216 T24168217	T09 T10	6/1/21 6/1/21
<b>~</b> I	12-100211	110	0/1/21

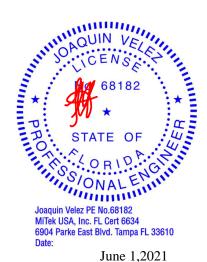


The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Jacksonville.

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.



Qty HOUSECRAFT - SORTO RES. Job Truss Truss Type Plv T24168197 2809728 CJ01 12 Jack-Open Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:04 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, ID:amOAUKkav?6JdbyPKE2WNezBhuh-zSZm1N4p70mIUbjPc5Q6\_pg8eWaBmY?Xu2EUkkzBfvr 1-0-0 2-0-0 1-0-0 Scale = 1:9.5 6.00 12 0-10-8 0-10-8 2 Δ° Ű Δ° ٨° 3x4 = 1-0-0 Plate Offsets (X,Y)--[2:0-0-3,0-0-5] LOADING (psf) SPACING-2-0-0 CSI DEFL I/defI L/d **PLATES** GRIP (loc) TCLL 20.Ó Plate Grip DOL 1.25 TC 0.25 Vert(LL) >999 240 MT20 244/190 0.00 TCDL 7.0 Lumber DOL 1.25 вс 0.06 Vert(CT) 0.00 180 >999 **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% **BRACING-**LUMBER-TOP CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins. **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

BOT CHORD 2x4 SP No.2

(size) 3=Mechanical, 2=0-8-0, 4=Mechanical Max Horz 2=46(LC 12)

Max Uplift 3=-27(LC 1), 2=-102(LC 12), 4=-46(LC 1)

Max Grav 3=16(LC 16), 2=254(LC 1), 4=29(LC 16)

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

### NOTES-

REACTIONS.

- 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; porch 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 27 lb uplift at joint 3, 102 lb uplift at joint 2 and 46 lb uplift at joint 4.



Date:



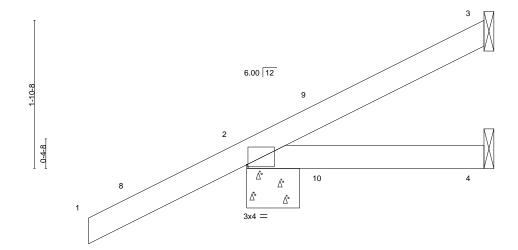
HOUSECRAFT - SORTO RES. Job Truss Truss Type Qtv Plv T24168198 2809728 CJ03 6 Jack-Open Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:05 2021 Page 1 Jacksonville, FL - 32244,

ID:amOAUKkav?6JdbyPKE2WNezBhuh-Re78Ej4RuJu96llb9pxLW0DJOwv\_V?Fg7iz2GAzBfvq

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

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

2-0-0 3-0-0



3-0-0

Plate Off	sets (X,Y)	[2:0-0-3,0-0-5]										
LOADIN	G (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)	0.01	4-7	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	ВС	0.09	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/T	PI2014	Matri	x-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)

Max Horz 2=80(LC 12) Max Uplift 3=-31(LC 12), 2=-76(LC 12), 4=-14(LC 9) Max Grav 3=52(LC 1), 2=253(LC 1), 4=48(LC 3)

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

3=Mechanical, 2=0-8-0, 4=Mechanical

### 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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 31 lb uplift at joint 3, 76 lb uplift at joint 2 and 14 lb uplift at joint 4.



6904 Parke East Blvd. Tampa FL 33610 Date:

June 1,2021



Ply HOUSECRAFT - SORTO RES. Job Qty Truss Truss Type T24168199 2809728 CJ03A 2 Jack-Open Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:06 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, ID:amOAUKkav?6JdbyPKE2WNezBhuh-vqhWS353fd00kvtojWSa3EmU7KFDESVqMMjbodzBfvp 2-0-0 2-8-0 0 - 4 - 00-10-8 6.00 12 5 9-0-Ű Ű <sup>6</sup>2x4 || Ű Ű 3x4 = 2-8-0 0-4-0

LOADING TCLL	20.Ó	SPACING- Plate Grip DOL	2-0-0 1.25	CSI.	0.25	DEFL. Vert(LL)	in -0.00	(loc) 6	l/defl >999	L/d 240	PLATES MT20	<b>GRIP</b> 244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.09	Vert(CT)	-0.01	6	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TI	PI2014	Matri	x-MR						Weight: 15 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

Plate Offsets (X,Y)-- [3:0-7-8,0-3-3]

3-6: 2x4 SP No.3

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

Max Horz 2=80(LC 12)

Max Uplift 4=-17(LC 12), 2=-76(LC 12), 5=-6(LC 12) Max Grav 4=42(LC 1), 2=255(LC 1), 5=45(LC 3)

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

### NOTES-

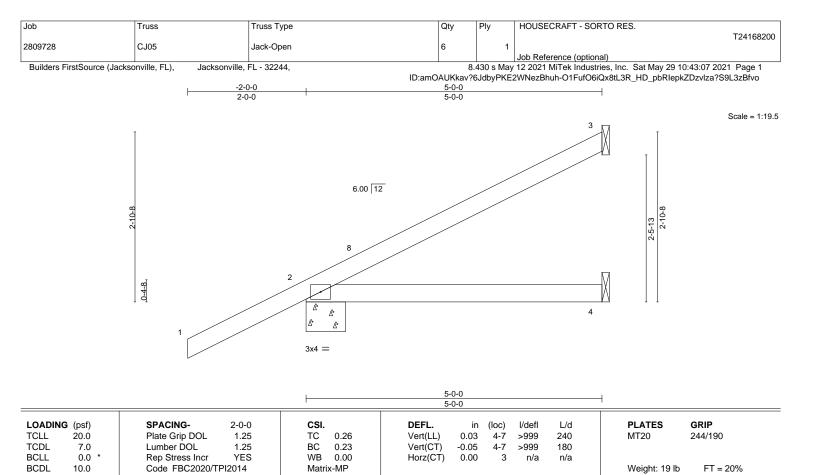
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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.
- 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 17 lb uplift at joint 4, 76 lb uplift at joint 2 and 6 lb uplift at joint 5.



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

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





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=0-8-0, 4=Mechanical

Max Horz 2=114(LC 12)

Max Uplift 3=-64(LC 12), 2=-80(LC 12)

Max Grav 3=108(LC 1), 2=313(LC 1), 4=87(LC 3)

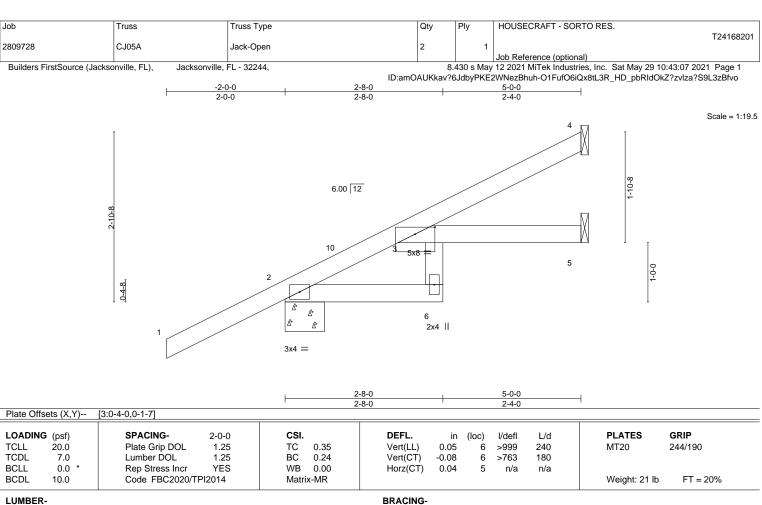
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II: Exp B: Encl. GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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 64 lb uplift at joint 3 and 80 lb uplift at joint 2.







TOP CHORD

**BOT CHORD** 

LUMBER-

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

3-6: 2x4 SP No.3

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

Max Horz 2=114(LC 12)

Max Uplift 4=-50(LC 12), 2=-79(LC 12), 5=-10(LC 12) Max Grav 4=97(LC 1), 2=316(LC 1), 5=82(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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.
- 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 50 lb uplift at joint 4, 79 lb uplift at joint 2 and 10 lb uplift at joint 5.

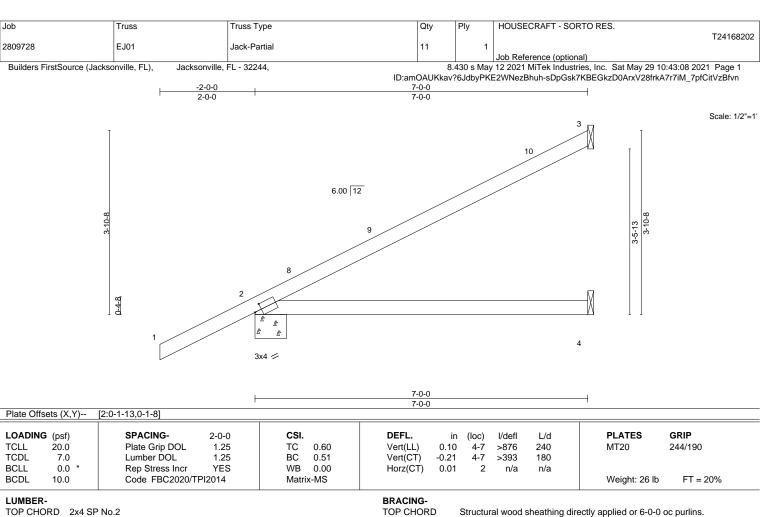


Structural wood sheathing directly applied or 5-0-0 oc purlins.

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

Date:





**BOT CHORD** 

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

REACTIONS.

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

(size) 3=Mechanical, 2=0-8-0, 4=Mechanical Max Horz 2=144(LC 12) Max Uplift 3=-84(LC 12), 2=-90(LC 12)

Max Grav 3=160(LC 1), 2=380(LC 1), 4=125(LC 3)

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

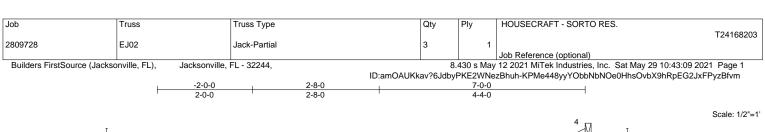
### NOTES-

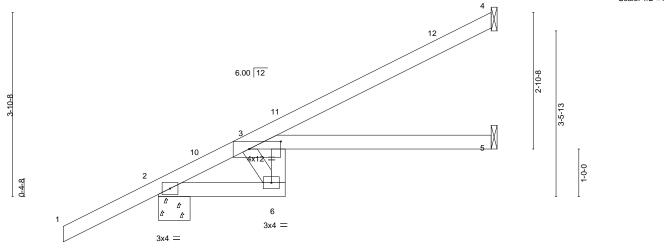
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 6-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 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 84 lb uplift at joint 3 and 90 lb uplift at joint 2.



June 1,2021







	2-8-0	7-0-0	
	2-8-0	4-4-0	
Plate Offsets (X V) [3:0-8-0 0-1-15]			

LOADIN	G (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)	0.16	6	>536	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.55	Vert(CT)	-0.26	6	>316	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.12	5	n/a	n/a		
BCDL	10.0	Code FBC2020/TPI	2014	Matri	x-MR	, ,					Weight: 29 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

3-6: 2x4 SP No.3

WEBS 2x4 SP No.3

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

Max Horz 2=144(LC 12)

Max Uplift 4=-71(LC 12), 2=-88(LC 12), 5=-9(LC 12) Max Grav 4=150(LC 1), 2=386(LC 1), 5=121(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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 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.
- 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 71 lb uplift at joint 4, 88 lb uplift at joint 2 and 9 lb uplift at joint 5.

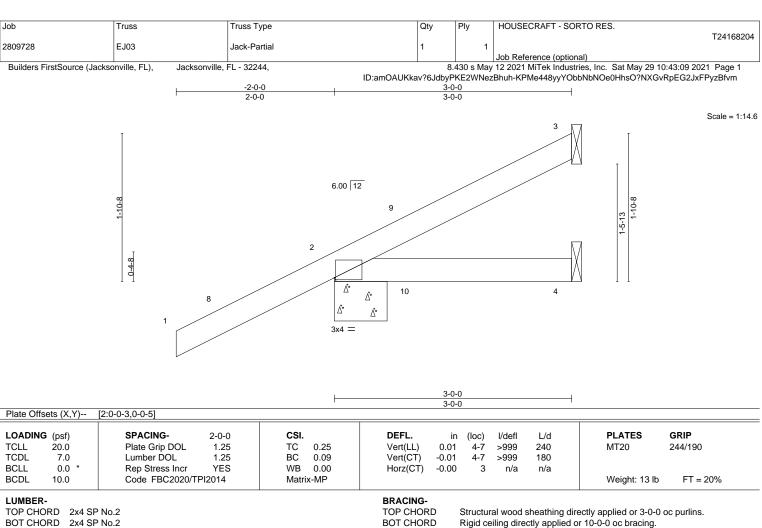


Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

6904 Parke East Blvd. Tampa FL 33610





BOT CHORD 2x4 SP No.2

(size) 3=Mechanical, 2=0-8-0, 4=Mechanical Max Horz 2=80(LC 12)

Max Uplift 3=-31(LC 12), 2=-76(LC 12), 4=-14(LC 9) Max Grav 3=52(LC 1), 2=253(LC 1), 4=48(LC 3)

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

### NOTES-

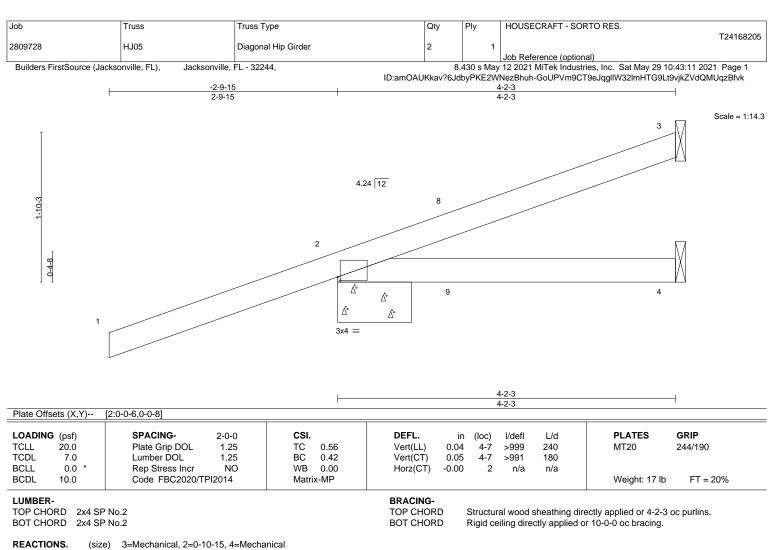
REACTIONS.

- 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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 2-11-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 31 lb uplift at joint 3, 76 lb uplift at joint 2 and 14 lb uplift at joint 4.



Date:





Max Horz 2=96(LC 4) Max Uplift 3=-37(LC 8), 2=-149(LC 4), 4=-28(LC 16) Max Grav 3=66(LC 35), 2=282(LC 1), 4=63(LC 22)

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; porch 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.
- 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 37 lb uplift at joint 3, 149 lb uplift at joint 2 and 28 lb uplift at joint 4.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 103 lb up at 1-6-1, and 56 lb down and 103 lb up at 1-6-1, and 22 lb down and 36 lb up at 4-1-7 on top chord, and 44 lb down and 74 lb up at 1-6-1, and 44 lb down and 74 lb up at 1-6-1, and 35 lb down and 21 lb up at 4-1-7 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: 1-3=-54, 4-5=-20 Concentrated Loads (lb)

Vert: 3=-13(F) 4=-6(F) 8=50(F=25, B=25) 9=70(F=35, B=35)



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

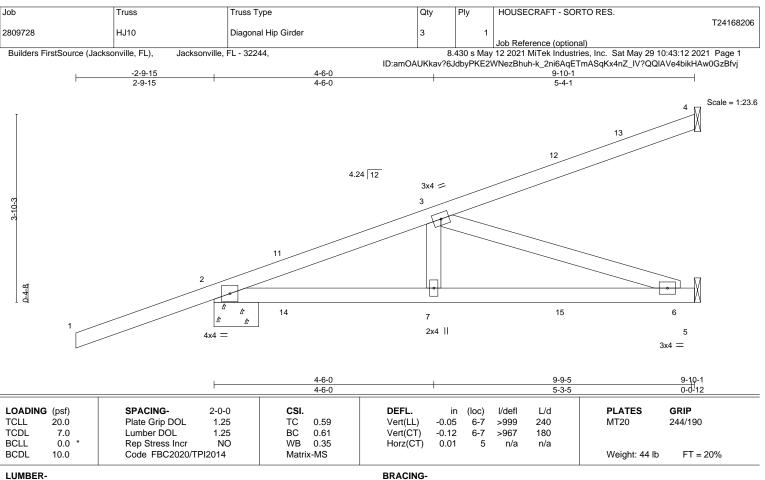
June 1,2021

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





TOP CHORD

BOT CHORD

TOP CHORD

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

BOT CHORD 2x4 SP No.3 WFBS

REACTIONS.

(size) 4=Mechanical, 2=0-10-15, 5=Mechanical Max Horz 2=160(LC 4)

Max Uplift 4=-79(LC 4), 2=-190(LC 4), 5=-61(LC 8) Max Grav 4=150(LC 1), 2=463(LC 1), 5=266(LC 3)

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

TOP CHORD 2-3=-628/204

**BOT CHORD** 2-7=-239/573. 6-7=-239/573

3-6=-603/251 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.
- 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 79 lb uplift at joint 4, 190 lb uplift at joint 2 and 61 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 103 lb up at 1-6-1, 56 lb down and 103 lb up at 1-6-1, 20 lb down and 33 lb up at 4-4-0, 20 lb down and 33 lb up at 4-4-0, and 41 lb down and 75 lb up at 7-1-15, and 41 lb down and 75 lb up at 7-1-15 on top chord, and 21 lb down and 74 lb up at 1-6-1, 21 lb down and 74 lb up at 1-6-1, 19 lb down and 21 lb up at 4-4-0, 19 lb down and 21 lb up at 4-4-0, and 42 lb down at 7-1-15, and 42 lb down at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 7=5(F=2, B=2) 11=50(F=25, B=25) 12=-64(F=-32, B=-32) 14=70(F=35, B=35) 15=-49(F=-24, B=-24)



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:

June 1,2021



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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

Design Valid to its 9 this with Min New Commercials. This design is based only upon parameters shown, and is 10 at an individual obtaining 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

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HOUSECRAFT - SORTO RES. Job Truss Truss Type Qtv Plv T24168207 2809728 HJ10A Diagonal Hip Girder Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:13 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:amOAUKkav?6JdbyPKE2WNezBhuh-CBc9wSBS?mv14\_v8dU4DriYbN8VoNWbszxvTYjzBfvi 9-10-1 5-6-0 2-9-15 3-8-8 1-9-8 4-4-1 Scale: 1/2"=1 5 3x4 = 4.24 12 8 18 19 2x4 | 4x4 = 0-4-8 17 9 4x4 = 4x4 = 9-10-1 0-0-12 3-8-8 1-9-8 4-3-5 Plate Offsets (X,Y)--[3:0-11-0,0-2-13] LOADING (psf) SPACING-2-0-0 CSI DEFL I/defI L/d **PLATES** GRIP (loc) Plate Grip DOL 1.25 TC 0.64 MT20 244/190 **TCLL** 20.0 Vert(LL) -0.20 >594 240 TCDL Lumber DOL 1.25 вс 0.67 9 180 7.0 Vert(CT) -0.33 >358 **BCLL** 0.0 Rep Stress Incr NO WB 0.43 Horz(CT) 0.12 6 n/a n/a **BCDL** 10.0 Code FBC2020/TPI2014 Matrix-MS Weight: 52 lb FT = 20% **BRACING-**LUMBER-TOP CHORD 2x4 SP M 31 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. 2x4 SP No.2 \*Except\* **BOT CHORD BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc bracing.

3-9: 2x4 SP No.3, 3-6: 2x6 SP No.2

WEBS 2x4 SP No.3

REACTIONS. (size) 5=Mechanical, 2=0-10-15, 6=Mechanical

Max Horz 2=160(LC 22)

Max Uplift 5=-49(LC 4), 2=-187(LC 4), 6=-97(LC 8) Max Grav 5=110(LC 1), 2=486(LC 1), 6=312(LC 1)

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

TOP CHORD 3-4=-1162/373

3-8=-425/1105, 7-8=-427/1112 BOT CHORD WEBS 4-8=-68/353, 4-7=-1141/438

### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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 49 lb uplift at joint 5, 187 lb uplift at joint 2 and 97 lb uplift at joint 6.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 56 lb down and 103 lb up at 1-6-1, 56 lb down and 103 lb up at 1-6-1, 66 lb down and 18 lb up at 4-4-0, 66 lb down and 18 lb up at 4-4-0, and 42 lb down and 60 lb up at 7-1-15, and 42 lb down and 60 lb up at 7-1-15 on top chord, and 21 lb down and 74 lb up at 1-6-1, 21 lb down and 74 lb up at 1-6-1, 25 lb down and 15 lb up at 4-4-0, 25 lb down and 15 lb up at 4-4-0, and 42 lb down and 26 lb up at 7-1-15, and 42 lb down and 26 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: 1-3=-54, 3-5=-54, 9-10=-20, 3-6=-20

### No 6818 No 6818 No 6818 No 6818 No 6818 JOAQUIN VE 68182

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

June 1,2021

### Continued on page 2

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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	Ply	HOUSECRAFT - SORTO RES.	٦
					T24168207	'
2809728	HJ10A	Diagonal Hip Girder	1	1		
					Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:13 2021 Page 2 ID:amOAUKkav?6JdbyPKE2WNezBhuh-CBc9wSBS?mv14\_v8dU4DriYbN8VoNWbszxvTYjzBfvi

LOAD CASE(S) Standard

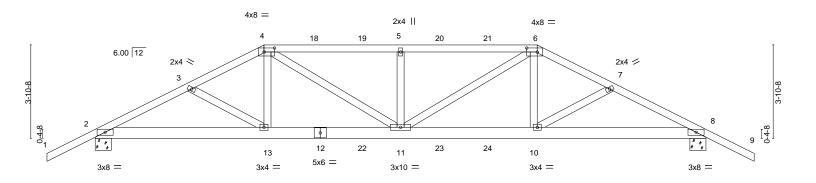
Concentrated Loads (lb)

Vert: 13=50(F=25, B=25) 14=-3(F=-1, B=-1) 15=-41(F=-21, B=-21) 17=70(F=35, B=35) 18=-21(F=-11, B=-11) 19=-77(F=-39, B=-39)



Qty Ply HOUSECRAFT - SORTO RES. Job Truss Truss Type T24168208 2809728 T01 Hip Girder Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:15 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:amOAUKkav?6JdbyPKE2WNezBhuh-9ZkwK8CjXO9kJI3Wlv7hw7d\_RyAurQK9QFOadbzBfvg 21-4-1 12-8-0 18-4-0 25-4-0 27-4-0 2-0-0 3-11-15 3-0-1 5-8-0 5-8-0 3-0-1 3-11-15 2-0-0

Scale: 1/4"=1



	7-0-0	12-8-0	18-4-0	25-4-0	
'	7-0-0	5-8-0	5-8-0	7-0-0	<u> </u>
Plate Offsets (X,Y)	[4:0-5-4,0-2-0], [6:0-5-4,0-2-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl	L/d <b>PLATES</b>	GRIP
TCLL 20.0 TCDL 7.0	Plate Grip DOL 1.25 Lumber DOL 1.25	TC 0.41 BC 0.69	Vert(LL) -0.16 11 >999 Vert(CT) -0.30 11 >999	240 MT20 180	244/190
BCLL 0.0 * BCDL 10.0	Rep Stress Incr NO Code FBC2020/TPI2014	WB 0.41 Matrix-MS	Horz(CT) 0.08 8 n/a	n/a Weight: 149 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

4-6: 2x4 SP M 31

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

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

Max Horz 2=-67(LC 13)

Max Uplift 2=-503(LC 8), 8=-516(LC 9) Max Grav 2=1873(LC 1), 8=1907(LC 1)

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

2-3=-3562/938, 3-4=-3402/897, 4-5=-3910/1040, 5-6=-3910/1040, 6-7=-3478/925, TOP CHORD

7-8=-3638/967

**BOT CHORD**  $2\text{-}13\text{=-}828/3148,\ 11\text{-}13\text{=-}747/3046,\ 10\text{-}11\text{=-}734/3113,\ 8\text{-}10\text{=-}787/3215}$ 4-13=-56/676, 4-11=-329/1074, 5-11=-730/380, 6-11=-272/981, 6-10=-55/679 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=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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 503 lb uplift at joint 2 and 516 lb uplift at
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 88 lb up at 7-0-0, 106 lb down and 88 lb up at 9-0-12, 106 lb down and 88 lb up at 11-0-12, 106 lb down and 81 lb up at 12-8-0, 106 lb down and 88 lb up at 14-3-4, and 106 lb down and 88 lb up at 16-3-4, and 227 lb down and 174 lb up at 18-4-0 on top chord, and 294 lb down and 88 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 12-8-0, 85 lb down at 14-3-4, and 85 lb down at 16-3-4, and 294 lb down and 88 lb up at 18-3-4 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).

### LOAD CASE(S) Standard

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



Structural wood sheathing directly applied or 2-11-0 oc purlins.

Rigid ceiling directly applied or 8-1-14 oc bracing.

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

June 1,2021

### Continued on page 2

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Job   Truss   Truss Type   Qty	1,	HOUSECRAFT - SORTO RES.
		T24168208
2809728 T01 Hip Girder 1	1	Job Reference (optional)

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

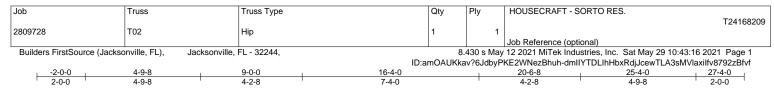
8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:15 2021 Page 2 ID:amOAUKkav?6JdbyPKE2WNezBhuh-9ZkwK8CjXO9kJI3Wlv7hw7d\_RyAurQK9QFOadbzBfvg

LOAD CASE(S) Standard

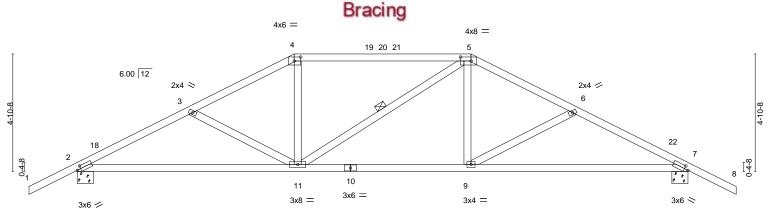
Uniform Loads (plf) Vert: 1-4=-54, 4-6=-54, 6-9=-54, 2-8=-20

Concentrated Loads (lb)

Vert: 4=-106(B) 6=-180(B) 12=-61(B) 13=-284(B) 11=-61(B) 5=-106(B) 10=-284(B) 18=-106(B) 19=-106(B) 20=-106(B) 21=-106(B) 22=-61(B) 23=-61(B) 24=-61(B)



Scale: 1/4"=1



	<u> </u>	9-0-0				16-4-0			25-4-0				
		9-0-0				7-4-0				9-0-0			
Plate Offse	ts (X,Y)	[2:0-1-15,0-1-8], [4:0-3-4,	0-2-0], [5:0-5-4,0	0-2-0], [7:0	-1-15,0-1-8]								
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	0.81	Vert(LL)	-0.15	9-17	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.71	Vert(CT)	-0.31	9-17	>975	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.05	7	n/a	n/a			
BCDL	10.0	Code FBC2020/TF	PI2014	Matri	x-MS	, ,					Weight: 125 lb	FT = 20%	

LUMBER-

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

**BOT CHORD** WFBS

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

1 Row at midpt 5-11

REACTIONS. (size) 2=0-8-0, 7=0-8-0 Max Horz 2=82(LC 12)

Max Uplift 2=-244(LC 12), 7=-244(LC 13) Max Grav 2=1045(LC 1), 7=1045(LC 1)

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

TOP CHORD 2-3=-1640/360, 3-4=-1398/304, 4-5=-1215/302, 5-6=-1398/305, 6-7=-1640/360

2-11=-321/1437, 9-11=-147/1215, 7-9=-254/1437 BOT CHORD 3-11=-263/153, 4-11=-20/382, 5-9=-23/382, 6-9=-263/153 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=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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 16-4-0, Exterior(2R) 16-4-0 to 20-8-7, Interior(1) 20-8-7 to 27-4-0 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.
- \* 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 244 lb uplift at joint 2 and 244 lb uplift at



6904 Parke East Blvd. Tampa FL 33610 Date:

June 1,2021

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Truss Type Qty HOUSECRAFT - SORTO RES. Job Truss Plv T24168210 2809728 T03 2 Hip Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:17 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, ID:amOAUKkav?6JdbyPKE2WNezBhuh-5yrglpEz3?PSYbCvsK99?YjMxmwVJLsRtZtghUzBfve 19-8-1 25-4-0 27-4-0

3-4-0

5-4-1

19-8-1

5-4-1

11-0-0

Scale: 1/4"=1

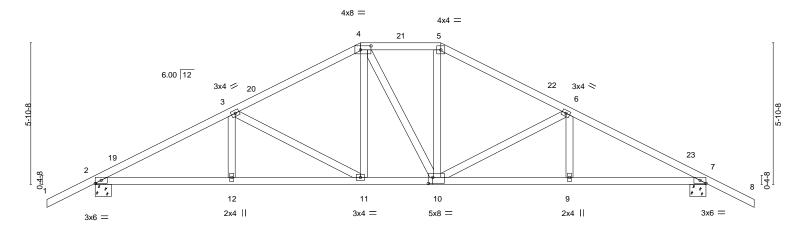
2-0-0

5-7-15

25-4-0

Structural wood sheathing directly applied or 4-4-12 oc purlins.

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



	-	5-7-15	1	5-4-1	3-4-0	5-4-1	-	5-7-15	_
Plate Offsets	(X,Y)	[4:0-5-4,0-2-0], [7:0-2-15,Ec	lge], [10:0-2-	4,0-3-0]					
LOADING (p	sf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc) I/defl	L/d	PLATES	GRIP
TCLL 20	.0	Plate Grip DOL	1.25	TC 0.28	Vert(LL)	-0.07 11-12 >999	240	MT20	244/190
TCDL 7	'.0	Lumber DOL	1.25	BC 0.42	Vert(CT)	-0.14 11-12 >999	180		
BCLL (	.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.05 7 n/a	n/a		
BCDL 10	0.0	Code FBC2020/TPI2	2014	Matrix-MS				Weight: 136 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

14-4-0

LUMBER-

REACTIONS.

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

2-0-0

5-7-15

(size) 2=0-8-0, 7=0-8-0

Max Horz 2=97(LC 12)

Max Uplift 2=-241(LC 12), 7=-241(LC 13) Max Grav 2=1045(LC 1), 7=1045(LC 1)

5-7-15

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

TOP CHORD 2-3=-1675/332, 3-4=-1230/287, 4-5=-1043/288, 5-6=-1231/287, 6-7=-1674/332 2-12=-305/1446, 11-12=-305/1446, 10-11=-142/1042, 9-10=-228/1446, 7-9=-228/1446 BOT CHORD

3-11=-469/187, 4-11=-62/327, 5-10=-59/328, 6-10=-468/187 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=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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 11-0-0, Exterior(2E) 11-0-0 to 14-4-0, Exterior(2R) 14-4-0 to 18-6-15, Interior(1) 18-6-15 to 27-4-0 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.
- \* 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 241 lb uplift at joint 2 and 241 lb uplift at

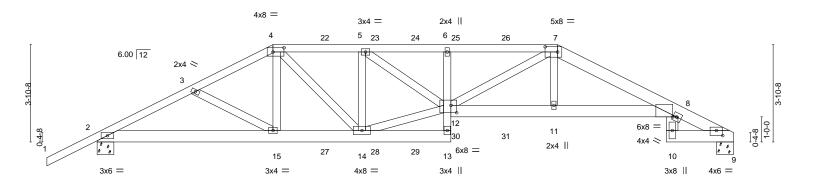


6904 Parke East Blvd. Tampa FL 33610 Date:



Qty HOUSECRAFT - SORTO RES. Job Truss Truss Type Plv T24168211 2809728 T04 HIP GIRDER 2 Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:20 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:amOAUKkav?6JdbyPKE2WNezBhuh-VXXpOrGrMwn1P3xUYSisdBLohzsWWeVuaX6LlpzBfvb 25-4-0 14-1-0 18-4-0 22-8-0 10-6-8 2-0-0 3-10-15 3-1-1 3-6-8 3-6-8 4-3-0 4-4-0 2-8-0

Scale = 1:45.9



	<u> </u>	7-0-0 7-0-0		10-6-8 3-6-8	-	14-1-0 3-6-8		18-4-0 4-3-0	-	+	22-8-0 4-4-0	25-4-0 2-8-0
Plata Office	sets (X,Y)	[4:0-5-4,0-2-0], [7:0-6-0,0	2 01 [0:0 1 1		2 0 0 2 71			4-3-0			4-4-0	2-0-0
Flate Olis	sets (A, I)	[4.0-3-4,0-2-0], [7.0-0-0,0	-2-0], [0.0-1-1	<u></u>	3-0,0-2-7],	[12.0-2-12,0-3-0]						
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	0.57	Vert(LL)	-0.16	12	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.79	Vert(CT)	-0.30	12	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.16	9	n/a	n/a		
BCDL	10.0	Code FBC2020/TI	PI2014	Matri	x-MS						Weight: 315 I	b FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

7-9: 2x6 SP M 26

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

6-13: 2x4 SP No.3, 8-12: 2x6 SP M 26

WEBS 2x4 SP No.3

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

Max Horz 2=83(LC 8)

Max Uplift 9=-498(LC 9), 2=-509(LC 8) Max Grav 9=1796(LC 1), 2=1854(LC 1)

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

TOP CHORD 2-3=-3518/957, 3-4=-3339/906, 4-5=-3627/1011, 5-6=-5010/1385, 6-7=-5051/1397,

7-8=-4813/1336, 8-18=-1270/374

BOT CHORD 2-15=-863/3112, 14-15=-769/2980, 13-14=-148/571, 6-12=-405/209, 11-12=-1152/4416,

8-11=-1136/4348, 8-10=-248/925

WEBS 4-15=-71/615, 4-14=-310/955, 5-14=-1434/502, 12-14=-830/3185, 5-12=-506/1718,

7-12=-248/836, 7-11=-284/1167

### 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, 2x6 - 2 rows staggered at 0-9-0 oc.

Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 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.
- 3) Unbalanced roof live loads have been considered for this design.
- 4) 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
- 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 498 lb uplift at joint 9 and 509 lb uplift at joint 2.



Structural wood sheathing directly applied or 5-5-0 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:

June 1,2021

### Continued on page 2

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

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

ANSI/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	HOUSECRAFT - SORTO RES.	
0000700	T04	LUD CIDDED	_			T24168211
2809728	T04	HIP GIRDER	1	2	Job Reference (optional)	

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:20 2021 Page 2 ID:amOAUKkav?6JdbyPKE2WNezBhuh-VXXpOrGrMwn1P3xUYSisdBLohzsWWeVuaX6LlpzBfvb

### NOTES-

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 88 lb up at 7-0-0, 106 lb down and 88 lb up at 9-0-12, 106 lb down and 88 lb up at 11-0-12, 106 lb down and 81 lb up at 12-8-0, 96 lb down and 75 lb up at 14-3-4, and 96 lb down and 75 lb up at 16-3-4, and 115 lb down and 75 lb up at 18-4-0 on top chord, and 294 lb down and 88 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 12-8-0, 81 lb down and 29 lb up at 14-3-4, and 81 lb down and 29 lb up at 16-3-4, and 358 lb down and 155 lb up at 18-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-7=-54, 7-8=-54, 8-18=-54, 2-13=-20, 8-12=-20, 9-10=-20

Concentrated Loads (lb)

Vert: 4=-106(F) 7=-96(F) 15=-284(F) 11=-358(F) 22=-106(F) 23=-106(F) 24=-106(F) 25=-96(F) 25=-96(F) 27=-61(F) 28=-61(F) 29=-61(F) 30=-74(F) 31=-74(F) 31=-74

Qty HOUSECRAFT - SORTO RES. Job Truss Truss Type Plv T24168212 2809728 T05 Hip Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:21 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:amOAUKkav?6JdbyPKE2WNezBhuh-zj5BbBHU7Evu1DWg5AE5AOt\_eNDEF8m1oBruqFzBfva 22-8-0 14-1-0 16-4-0 19-7-13 25-4-0

2-3-0

3-3-13

3-0-3

Structural wood sheathing directly applied or 4-3-12 oc purlins.

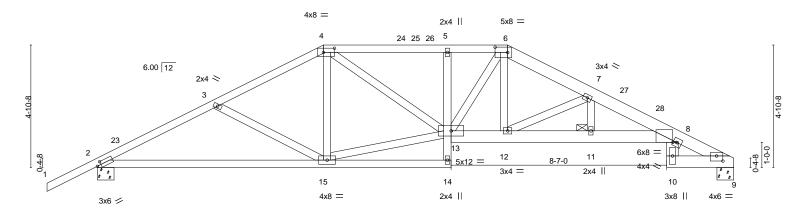
Rigid ceiling directly applied or 10-0-0 oc bracing.

1 Brace at Jt(s): 11

5-1-0

Scale = 1:45.9

2-8-0



	9-0-0				1	14-1-0	16-4-0	19-7-13	22-8-0	25-4-0
						5-1-0	2-3-0	3-3-13	3-0-3	2-8-0
Plate Offsets (2	X,Y)	[2:0-1-15,0-1-8], [4:0-5-4,	0-2-0], [6:0-6-	0,0-2-8], [8:0	-1-12,0-0-0],	[9:0-3-0,0-2-7]				
	•			T						
LOADING (ps	f)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl L/d	PLATES	GRIP
TCLL 20.	.Ó	Plate Grip DOL	1.25	TC	0.49	Vert(LL)	-0.15 15-22	>999 240	MT20	244/190
TCDL 7.	.0	Lumber DOL	1.25	ВС	0.69	Vert(CT)	-0.31 15-22	>968 180		
BCLL 0.	.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.15 9	n/a n/a		
BCDL 10.	.0	Code FBC2020/TF	PI2014	Matr	ix-MS	, ,			Weight: 1	54 lb FT = 20%
									1 3	

**BRACING-**

JOINTS

TOP CHORD

**BOT CHORD** 

LUMBER-

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

6-9: 2x6 SP M 26 **BOT CHORD** 2x6 SP No.2 \*Except\*

2-14: 2x4 SP No.2, 5-14: 2x4 SP No.3, 8-13: 2x6 SP M 26

WEBS 2x4 SP No.3

2-0-0

4-9-8

4-2-9

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

Max Horz 2=98(LC 12)

Max Uplift 9=-193(LC 13), 2=-243(LC 12) Max Grav 9=928(LC 1), 2=1038(LC 1)

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

TOP CHORD 2-3=-1631/368, 3-4=-1380/309, 4-5=-1613/386, 5-6=-1610/384, 6-7=-1728/379,

7-8=-2552/511, 8-18=-649/153

2-15=-337/1431, 12-13=-223/1497, 11-12=-416/2346, 8-11=-416/2346, 8-10=-96/507 BOT CHORD WEBS

3-15=-285/159, 13-15=-181/1084, 4-13=-132/566, 6-13=-94/275, 6-12=-97/526,

7-12=-974/259, 7-11=-38/355

### 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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 16-4-0, Exterior(2R) 16-4-0 to 20-6-15, Interior(1) 20-6-15 to 25-0-0 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 9 and 243 lb uplift at joint 2.



6904 Parke East Blvd. Tampa FL 33610 Date:

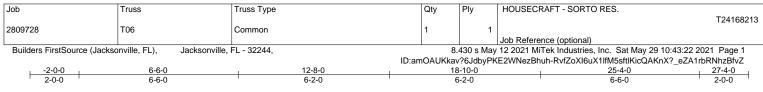
June 1,2021

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

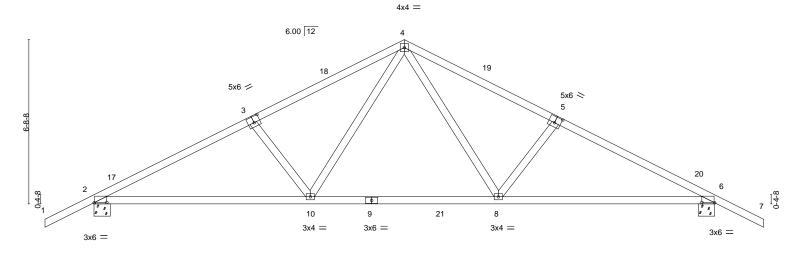
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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





Scale = 1:47.0



		8-9-15	1	7-8-2					8-9-15				
Plate Offsets (X,Y) [2:0-6-4,0-0-4], [3:0-3-0,0-3-0], [5:0-3-0,0-3-0], [6:0-6-4,0-0-4]													
LOADING	G (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	0.43	Vert(LL)	-0.14	8-16	>999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC 0	0.79	Vert(CT)	-0.29	8-16	>999	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB 0	0.25	Horz(CT)	0.05	6	n/a	n/a			
BCDL	10.0	Code FBC2020/TP	12014	Matrix-N	MS						Weight: 120 lb	FT = 20%	

**BRACING-**

TOP CHORD

**BOT CHORD** 

16-6-1

LUMBER-

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

**WEBS** 2x4 SP No.3

REACTIONS. (size) 2=0-8-0, 6=0-8-0 Max Horz 2=-109(LC 13)

Max Uplift 2=-238(LC 12), 6=-238(LC 13) Max Grav 2=1110(LC 2), 6=1110(LC 2)

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

8-9-15

TOP CHORD 2-3=-1723/367, 3-4=-1571/363, 4-5=-1571/363, 5-6=-1724/367

2-10=-306/1513, 8-10=-109/1011, 6-8=-245/1512 **BOT CHORD** 

4-8=-146/655, 5-8=-349/210, 4-10=-146/654, 3-10=-349/210 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=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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 12-8-0, Exterior(2R) 12-8-0 to 15-8-0, Interior(1) 15-8-0 to 27-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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 238 lb uplift at joint 2 and 238 lb uplift at joint 6



25-4-0

Structural wood sheathing directly applied or 4-0-8 oc purlins.

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

Date:

June 1,2021

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

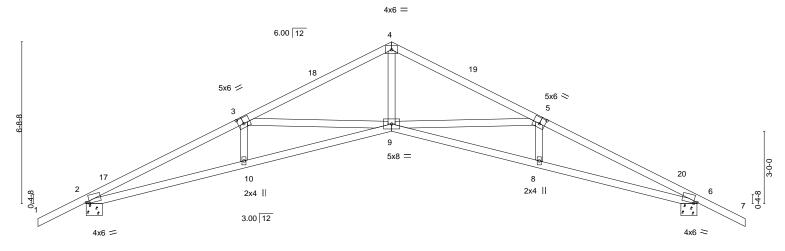
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



HOUSECRAFT - SORTO RES. Job Truss Truss Type Qtv Plv T24168214 2809728 T07 6 Scissor Job Reference (optional) 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:23 2021 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, ID:amOAUKkav?6JdbyPKE2WNezBhuh-w6Dx0tlkfr9cGWg3DbGZFpzHJAqMj0DKGVK?v8zBfvY 18-9-8 25-4-0 27-4-0 2-0-0 6-6-8 6-1-8 6-1-8 6-6-8 2-0-0

Scale: 1/4"=1



000		12 0 0	1000	20 4 0	
	6-6-8	6-1-8	6-1-8	6-6-8	1
Plate Offsets (X	Y) [2:0-1-9,0-0-12], [3:0-2-12,0-3-0],	[5:0-2-12,0-3-0], [6:0-1-9,0-0-12]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/def	L/d <b>PLATES</b>	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.67	Vert(LL) -0.27 9-10 >999	240 MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.97	Vert(CT) -0.52 9-10 >587	180	
BCLL 0.0	* Rep Stress Incr YES	WB 0.54	Horz(CT) 0.33 6 n/a	ı n/a	
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	,	Weight: 115 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

18-9-8

12-8-0

LUMBER-

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

**WEBS** 2x4 SP No.3

REACTIONS. (size) 2=0-8-0, 6=0-8-0 Max Horz 2=-109(LC 13)

Max Uplift 2=-237(LC 12), 6=-237(LC 13) Max Grav 2=1045(LC 1), 6=1045(LC 1)

6-6-8

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. 2-3=-2792/572, 3-4=-2051/388, 4-5=-2051/378, 5-6=-2792/550 TOP CHORD 2-10=-540/2493, 9-10=-542/2513, 8-9=-423/2513, 6-8=-421/2493 BOT CHORD

3-9=-722/317, 4-9=-194/1426, 5-9=-722/331 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=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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 12-8-0, Exterior(2R) 12-8-0 to 15-8-0, Interior(1) 15-8-0 to 27-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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, 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 237 lb uplift at joint 2 and 237 lb uplift at

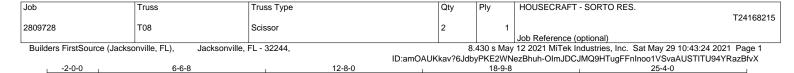


25-4-0

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

Rigid ceiling directly applied or 2-2-0 oc bracing.





6-1-8

6-1-8



6-6-8

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

Rigid ceiling directly applied or 2-2-0 oc bracing.

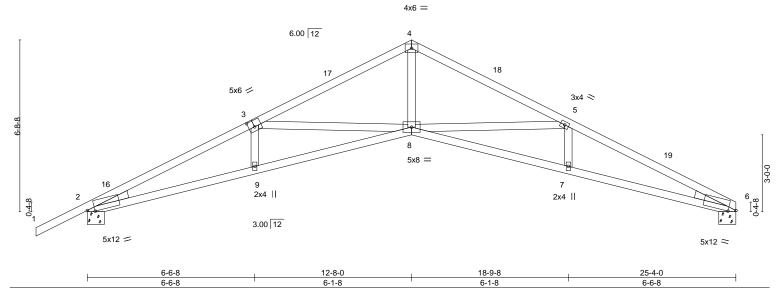


Plate Off	Plate Offsets (X,Y) [2:0-3-9,0-1-3], [3:0-2-12,0-3-0], [6:0-3-9,0-1-3]											
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	-0.27	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.98	Vert(CT)	-0.52	8-9	>586	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.33	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TI	PI2014	Matri	x-MS						Weight: 116 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

2-0-0

6-6-8

WEDGE

Left: 2x4 SP No.3, Right: 2x4 SP No.3

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

Max Horz 2=124(LC 16)

Max Uplift 6=-193(LC 13), 2=-238(LC 12) Max Grav 6=933(LC 1), 2=1050(LC 1)

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

 $2\hbox{-}3\hbox{--}2809/599,\ 3\hbox{-}4\hbox{--}2067/431,\ 4\hbox{-}5\hbox{--}2067/442,\ 5\hbox{-}6\hbox{--}2849/613}$ 

**BOT CHORD**  $2-9=-570/2508,\ 8-9=-572/2528,\ 7-8=-504/2564,\ 6-7=-502/2550$ 

3-8=-722/316, 4-8=-240/1445, 5-8=-758/346 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=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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 12-8-0, Exterior(2R) 12-8-0 to 15-8-0, Interior(1) 15-8-0 to 25-4-0 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) 6, 2 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 193 lb uplift at joint 6 and 238 lb uplift at joint 2.



Date:

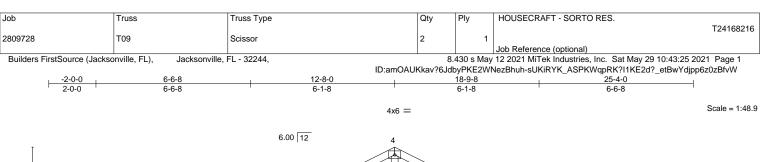
June 1,2021

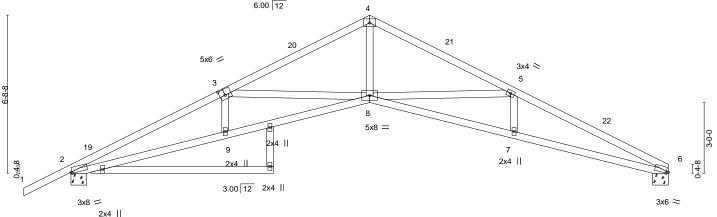
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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







		6-6-8		8-7-0 12-8-0		1	18-9-8				25-4-0	
		6-6-8		2-0-8	4-1-0	1	6-	1-8		'	6-6-8	1
Plate Offset	ts (X,Y)	[2:0-0-9,Edge], [3:0-2-12,	0-3-0], [6:0-1	-1,0-0-12]								
LOADING	(psf)	SPACING-	2-0-0	CSI.	ı	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL TCDL	20.0 7.0	Plate Grip DOL Lumber DOL	1.25 1.25	TC BC		Vert(LL) Vert(CT)	-0.23 -0.45	8-9 8-9	>999 >678	240 180	MT20	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB		Horz(CT)	0.28	6	n/a	n/a		
BCDL	10.0	Code FBC2020/TF	PI2014	Matri	x-MS						Weight: 126 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 2x4 SP M 31 \*Except\* **BOT CHORD** 

10-11: 2x4 SP No.3

WEBS 2x4 SP No.3

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

Max Horz 2=124(LC 16)

Max Uplift 6=-193(LC 13), 2=-238(LC 12) Max Grav 6=933(LC 1), 2=1050(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-2806/598, 3-4=-2068/431, 4-5=-2068/442, 5-6=-2846/613

2-9=-569/2507, 8-9=-571/2528, 7-8=-504/2565, 6-7=-501/2549 BOT CHORD

**WEBS** 3-8=-722/315, 4-8=-241/1451, 5-8=-758/345

### 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) -2-0-0 to 1-0-0, Interior(1) 1-0-0 to 12-8-0, Exterior(2R) 12-8-0 to 15-8-0, Interior(1) 15-8-0 to 25-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 6 and 238 lb uplift at joint 2.



Structural wood sheathing directly applied or 2-9-14 oc purlins.

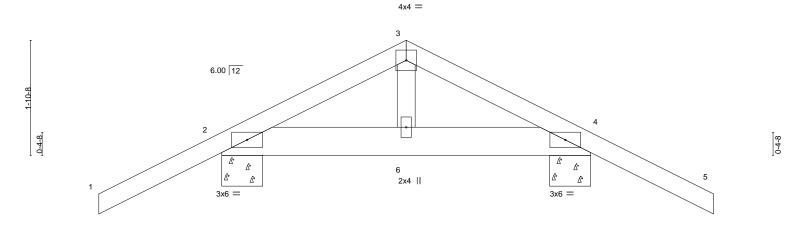
Rigid ceiling directly applied or 10-0-0 oc bracing.

Date:

June 1,2021



Ply HOUSECRAFT - SORTO RES. Job Truss Truss Type Qtv T24168217 2809728 T10 Common Girder Job Reference (optional) Builders FirstSource (Jacksonville, FL), 8.430 s May 12 2021 MiTek Industries, Inc. Sat May 29 10:43:26 2021 Page 1 Jacksonville, FL - 32244. ID:amOAUKkav?6JdbyPKE2WNezBhuh-Khu4euLcxmXB7\_OeujpGtSbuqO5GwVZmyTZfWSzBfvV 6-0-0 8-0-0 2-0-0 3-0-0 3-0-0 2-0-0



		<u> </u>	3-0-0 3-0-0		-		6-0-0 3-0-0				
LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0	SPACING- Plate Grip DOL Lumber DOL Rep Stress Incr Code FBC2020/TI	2-0-0 1.25 1.25 NO PI2014	BC (	).27 ).06 ).06 MP	DEFL. Vert(LL) Vert(CT) Horz(CT)	in -0.00 -0.01 0.00	(loc) 6 6 4	l/defl >999 >999 n/a	L/d 240 180 n/a	PLATES MT20 Weight: 33 lb	<b>GRIP</b> 244/190 FT = 20%

**BRACING-**

**TOP CHORD** 

BOT CHORD

LUMBER-

WFBS REACTIONS.

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

2x4 SP No.3

(size) 2=0-8-0, 4=0-8-0 Max Horz 2=37(LC 8)

Max Uplift 2=-117(LC 8), 4=-117(LC 9) Max Grav 2=324(LC 1), 4=324(LC 1)

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

TOP CHORD 2-3=-262/87, 3-4=-262/87 BOT CHORD 2-6=-47/269 4-6=-47/269

### 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; porch left and right exposed; 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 117 lb uplift at joint 2 and 117 lb uplift at
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 63 lb down and 33 lb up at 3-0-0 on top chord, and 162 lb down and 120 lb up at 3-0-0 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: 1-3=-54, 3-5=-54, 2-4=-20

Concentrated Loads (lb) Vert: 6=11(F)

68182 Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634

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

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

6904 Parke East Blvd. Tampa FL 33610 Date:

June 1,2021

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

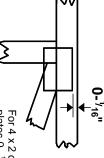


### Symbols

## 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

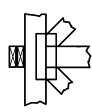
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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**



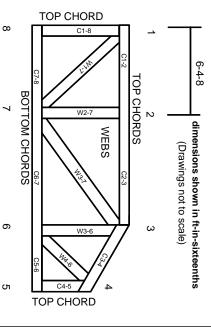
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## 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

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- 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.
- 15. 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.