



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

RE: 2208307 - GIEBEIG - LOT 52 MF

**MiTek USA, Inc.**

6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: GIEBEIG HOMES Project Name: Spec Model: St. Johns 3 bdrm  
Lot/Block: 52 Subdivision: Mayfair  
Address: TBD SW Mayfair Lane, n/a  
City: Columbia Cty State: FL

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

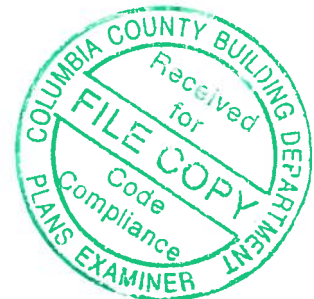
Name: License #:  
Address:  
City: State:

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

Design Code: FBC2017/TPI2014 Design Program: MiTek 20/20 8.2  
Wind Code: ASCE 7-10 Wind Speed: 130 mph  
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 29 individual, Truss Design Drawings and 0 Additional Drawings.  
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	T18998071	CJ1	12/27/19	23	T18998093	T16	12/27/19
2	T18998072	CJ3	12/27/19	24	T18998094	T17	12/27/19
3	T18998073	CJ5	12/27/19	25	T18998095	T18	12/27/19
4	T18998074	EJ5	12/27/19	26	T18998096	T18G	12/27/19
5	T18998075	EJ7	12/27/19	27	T18998097	T19	12/27/19
6	T18998076	HJ7	12/27/19	28	T18998098	T20	12/27/19
7	T18998077	HJ9	12/27/19	29	T18998099	T21	12/27/19
8	T18998078	T01G	12/27/19				
9	T18998079	T03	12/27/19				
10	T18998080	T03G	12/27/19				
11	T18998081	T04	12/27/19				
12	T18998082	T05	12/27/19				
13	T18998083	T06	12/27/19				
14	T18998084	T07	12/27/19				
15	T18998085	T08	12/27/19				
16	T18998086	T09	12/27/19				
17	T18998087	T10	12/27/19				
18	T18998088	T11	12/27/19				
19	T18998089	T12	12/27/19				
20	T18998090	T13	12/27/19				
21	T18998091	T14	12/27/19				
22	T18998092	T15	12/27/19				



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: Finn, Walter

My license renewal date for the state of Florida is February 28, 2021.

**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.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

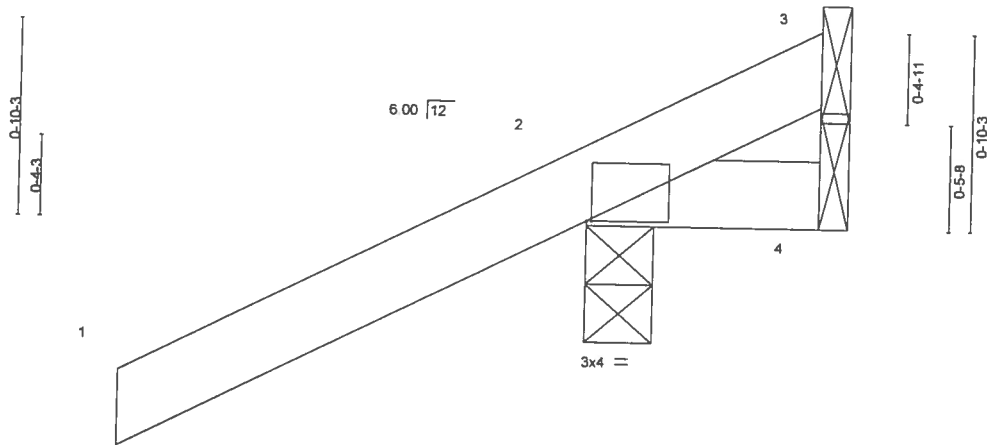
December 27, 2019



Job 2208307	Truss CJ1	Truss Type Jack-Open	Qty 10	Ply 1	GIEBEIG - LOT 52 MF	T18998071
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:08 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz6?b-lp6w7i5HoCiaANsuAGPsSd\_6vp0HzLYp1VMLfRy4njD



Scale = 1/8" = 1'-0"

Plate Offsets (X,Y)-- [2'-0"-0'-4'-0'-0'-0']

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2'-0"-0'	TC 0.32	Vert(LL)	0.00	7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.06	Vert(CT)	0.00	7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MP							

Weight: 7 lb FT = 20%

#### LUMBER-

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

#### BRACING-

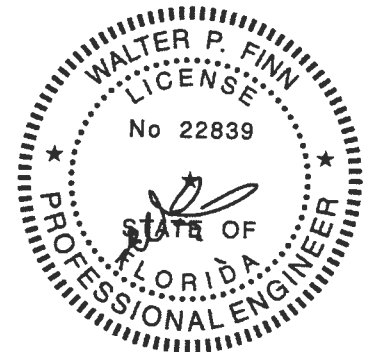
TOP CHORD Structural wood sheathing directly applied or 1'-0"-0" oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0"-0" oc bracing.

REACTIONS. (lb/size) 3=-26/Mechanical, 2=254/0'-3'-8", 4=-47/Mechanical  
Max Horz 2=66(LC 12)  
Max Uplift 3=-26(LC 1), 2=-163(LC 12), 4=-47(LC 1)  
Max Grav 3=25(LC 16), 2=254(LC 1), 4=45(LC 16)

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

#### NOTES- (7)

- 1) Wind: ASCE 7-10, Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft, Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 3, 163 lb uplift at joint 2 and 47 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date:

December 27, 2019

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

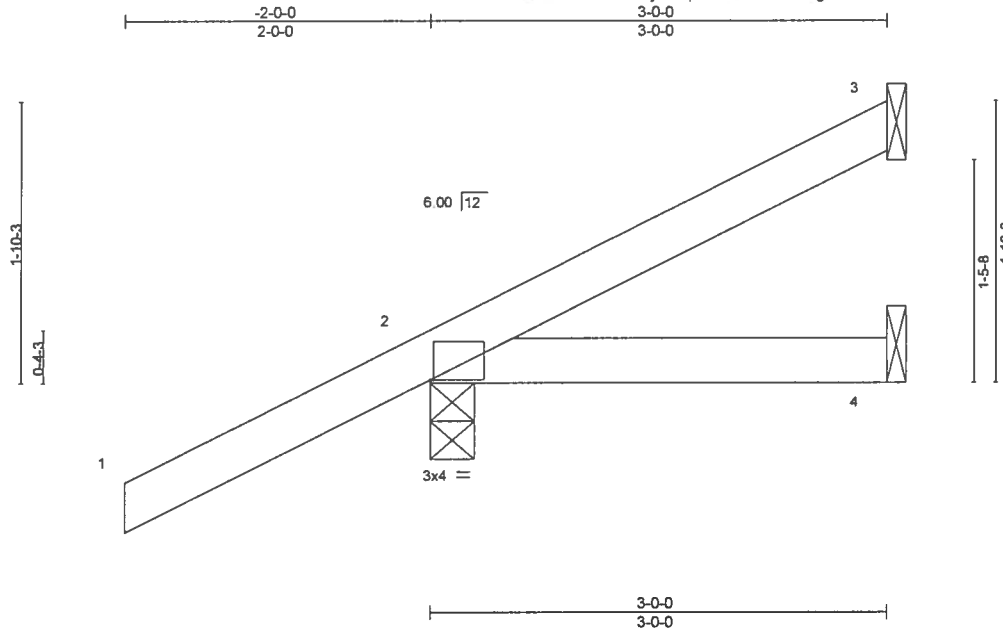
**MiTek**

6904 Parke East Blvd  
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998072
2208307	CJ3	Jack-Open	10	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 09 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz6?b-D?glK16vZWQRoWR4kzw5?rWHfDLmionzG96uBuy4njC



Scale = 1/14.6

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.32	Vert(LL) 0.01	4-7	>999	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.07	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 FBC2017/TPI2014	Matrix-MP							
								Weight: 13 lb	FT = 20%

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

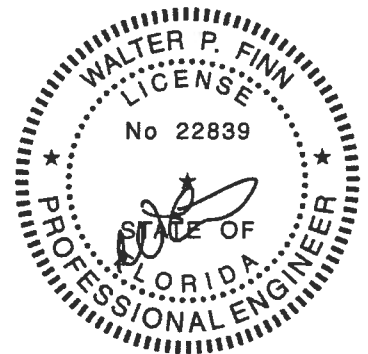
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3'-0" oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

**REACTIONS.** (lb/size) 3=52/Mechanical, 2=253/0-3-8, 4=20/Mechanical  
Max Horz 2=113(LC 12)  
Max Uplift 3=47(LC 12), 2=127(LC 12), 4=22(LC 9)  
Max Grav 3=52(LC 1), 2=253(LC 1), 4=47(LC 3)

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

#### NOTES- (7)

- 1) Wind: ASCE 7-10, Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft, Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 3, 127 lb uplift at joint 2 and 22 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

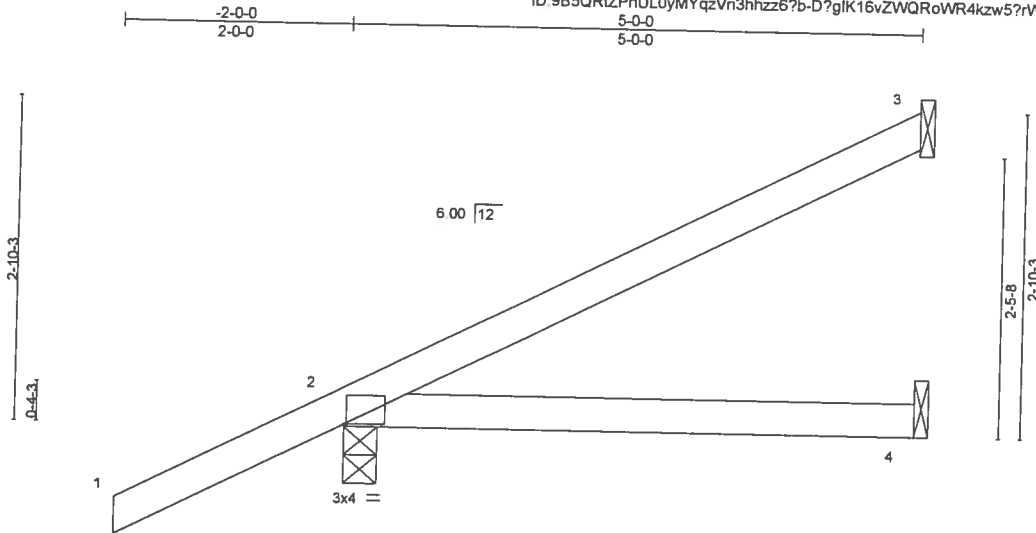


6904 Parke East Blvd.  
Tampa, FL 33610

Job 2208307	Truss CJ5	Truss Type Jack-Open	Qty 6	Ply 1	GIEBEIG - LOT 52 MF	T18998073
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:09 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz6?b-D?gIK16vZWQRoWR4kzw5?rWHrDHDionzG96uBuy4njC



Scale = 1/19.5

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

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 0.37	Vert(LL)	0.08	4-7	>756	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.34	Vert(CT)	0.07	4-7	>863	180	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.00	3	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MP						

Weight: 19 lb FT = 20%

#### LUMBER-

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

#### BRACING-

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

**REACTIONS.** (lb/size) 3=108/Mechanical, 2=313/0-3-8, 4=53/Mechanical  
Max Horz 2=162(LC 12)  
Max Uplift 3=97(LC 12), 2=137(LC 12), 4=44(LC 9)  
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- (7)

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft, Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* 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.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 3, 137 lb uplift at joint 2 and 44 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date:

December 27, 2019

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 rev. 10/03/2015 BEFORE USE.

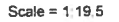
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**MiTek**

6904 Parke East Blvd  
Tampa, FL 33610

Builders FirstSource, Jacksonville, FL - 32244, 8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 10 2019 Page 1  
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5-0-0



**NOTES-** (7)

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.


3) \* 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.

4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

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

6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 97 lb uplift at joint 3, 137 lb uplift at joint 2 and 44 lb uplift at joint 4.

7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

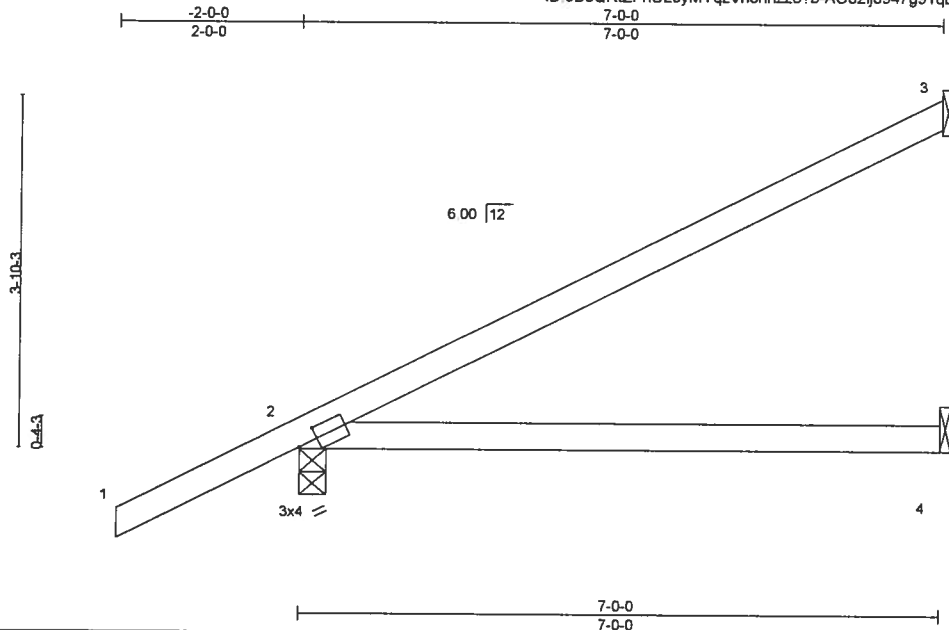


**Mii**  
**MiTek**  
6904 Parke East Blvd  
Tampa, FL 33610

Job 2208307	Truss EJ7	Truss Type JACK	Qty 22	Ply 1	GIEBEIG - LOT 52 MF Job Reference (optional)	T18998075
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 11 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz6?b-AOo2lj8947g91qbTsOyZ4GcYw1x5AiHGjTb?Fmy4njA



Scale 1/2"=1'

Plate Offsets (X,Y) - [2:0-2-10,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	2-0-0	TC 0.66	Vert(LL) 0.12	4-7	>668	240		MT20	244/190
TCDL 7.0	Lumber DOL 1.25		BC 0.50	Vert(CT) -0.21	4-7	>395	180			
BCLL 0.0	Rep Stress Incr YES		WB 0.00	Horz(CT) -0.00	3	n/a	n/a			
BCDL 10.0	Code FBC2017/TP12014		Matrix-MP							
									Weight 26 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

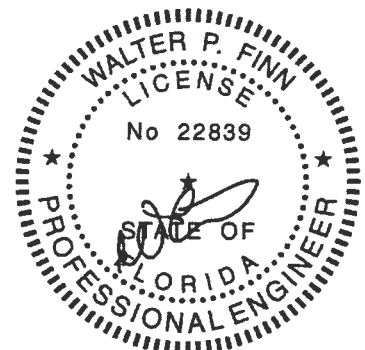
#### REACTIONS.

(lb/size) 3=160/Mechanical, 2=380/0-3-8, 4=81/Mechanical  
Max Horz 2=144(LC 12)  
Max Uplift 3=93(LC 12), 2=82(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- (7)

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* 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.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 3 and 82 lb uplift at joint 2.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 rev. 10/03/2015 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, 218 N Lee Street, Suite 312, Alexandria, VA 22314.

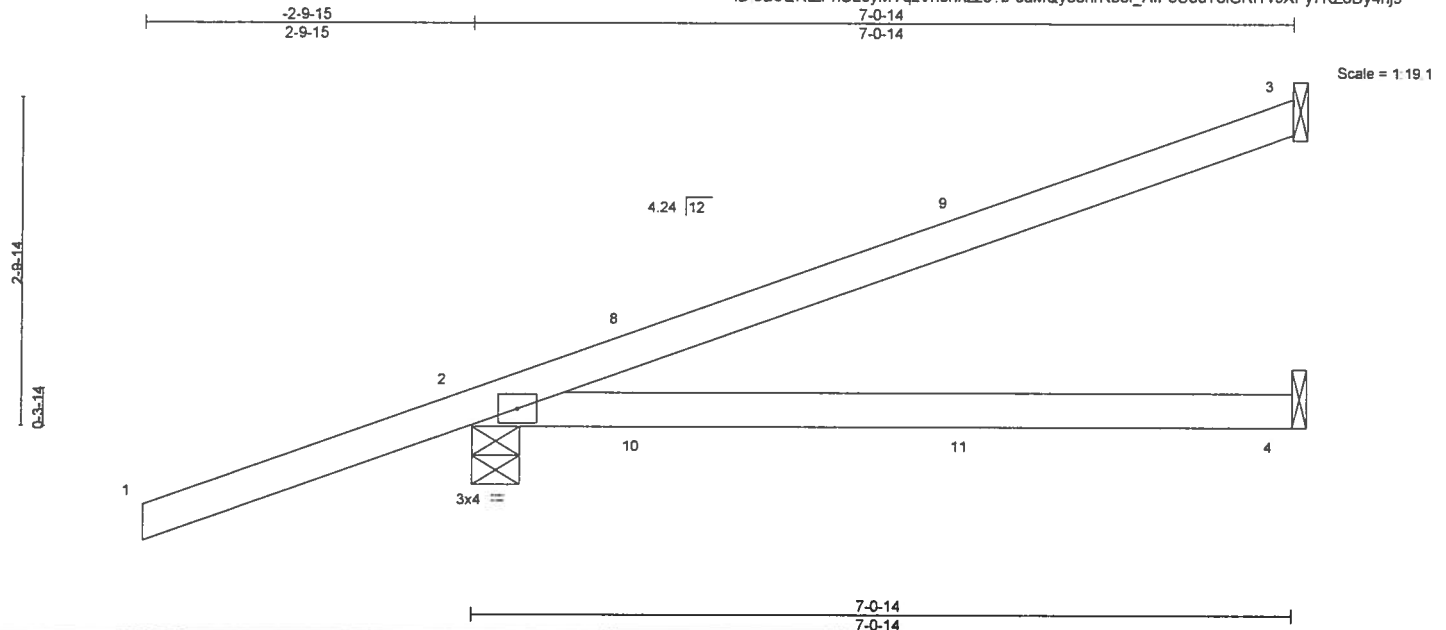
**MiTek**

6904 Parke East Blvd.  
Tampa, FL 36610

Job 2208307	Truss HJ7	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	GIEBEIG - LOT 52 MF Job Reference (optional)	T18998076
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc Fri Dec 27 10:54:12 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz67b-eaMQy38nrRo0f\_AIP6UodT8IGRITv9XPy7KZoDy4nj9



LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.56	Vert(LL)	-0.13	4-7	>663	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.43	Vert(CT)	-0.17	4-7	>496	180		
BCLL 0.0	Rep Stress Incr	NO	WB 0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS							
									Weight: 26 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

#### REACTIONS.

(lb/size) 3=141/Mechanical, 2=347/0-4-15, 4=60/Mechanical  
Max Horz 2=185(LC 4)  
Max Uplift 3=118(LC 8), 2=260(LC 4), 4=55(LC 5)  
Max Grav 3=141(LC 1), 2=347(LC 1), 4=110(LC 3)

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

#### NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 3, 260 lb uplift at joint 2 and 55 lb uplift at joint 4.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 83 lb down and 103 lb up at 1-5-12, 83 lb down and 103 lb up at 1-5-12, and 26 lb down and 37 lb up at 4-3-11, and 26 lb down and 37 lb up at 4-3-11 on top chord, and 70 lb down and 75 lb up at 1-5-12, 70 lb down and 75 lb up at 1-5-12, and 53 lb down and 30 lb up at 4-3-11, and 53 lb down and 30 lb up at 4-3-11 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

#### 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: 8=49(F=24, B=24) 10=70(F=35, B=35) 11=4(F=2, B=2)



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

**MiTek**

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8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 13 2019 Page 1  
ID 9B5QRtZPhUL0yMYqzVn3hhz6?b=6mwpAP9PckwtH8lrzp?19hhv?qageY0ZBn46Kfy4nj8



Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998077
2208307	HJ9	Diagonal Hip Girder	3	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:13 2019 Page 2  
ID 9B5QRIZPhUL0yMYqzVn3hhzz6?b=6mwpAP9PckwtH8lrp?19hhv?qageY0ZBn46Kfy4nj8

#### LOAD CASE(S) Standard

##### Concentrated Loads (lb)

Vert: 11=49(F=24, B=24) 13=-63(F=-31, B=-31) 14=70(F=35, B=35) 15=4(F=2, B=2) 16=-49(F=-25, B=-25)

#### **WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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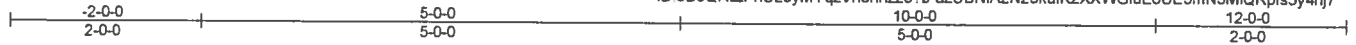


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Tampa, FL 36610

Job 2208307	Truss T01G	Truss Type Common Supported Gable	Qty 1	Ply 1	GIEBEIG - LOT 52 MF Job Reference (optional)	T18998078
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Builders FirstSource, Jacksonville, FL - 32244

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:14 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz67b-azUBNIA2N23kuIK2XXWGiUE8UE3mN3MiQRpfs5y4nj7



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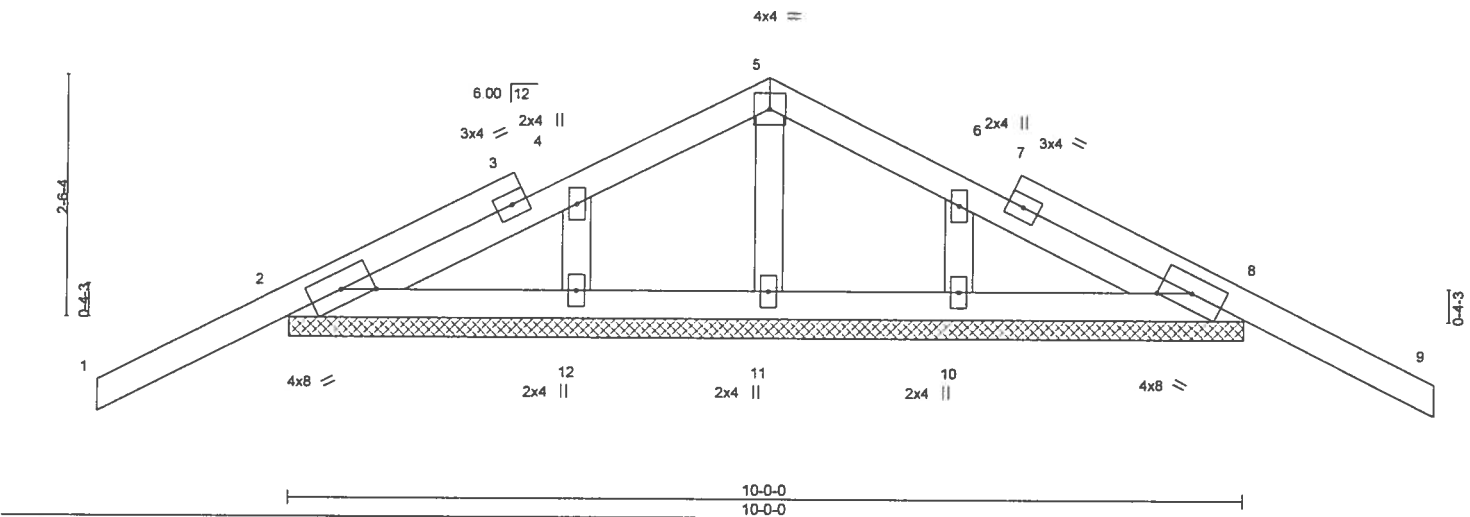


Plate Offsets (X,Y)~		[2:0-4-0,0-1-15], [8:0-4-0,0-1-15]										
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	-0.02	9	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.06	Vert(CT)	-0.03	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-S								
											Weight: 50 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

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

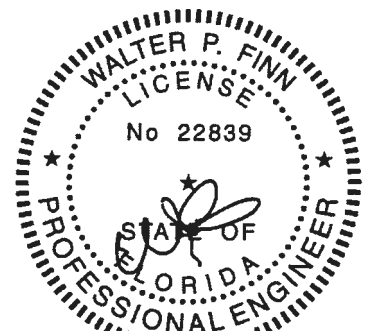
#### REACTIONS.

All bearings 10-0-0.  
(lb) - Max Horz 2=-67(LC 13)  
Max Uplift All uplift 100 lb or less at joint(s) 11, 12, 10 except 2=-135(LC 12), 8=-147(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 11, 12, 10

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

#### NOTES- (11)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 12, 10 except (jt=lb) 2=135, 8=147.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 8.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date:

December 27,2019

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

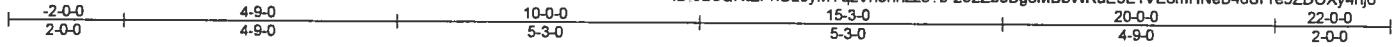
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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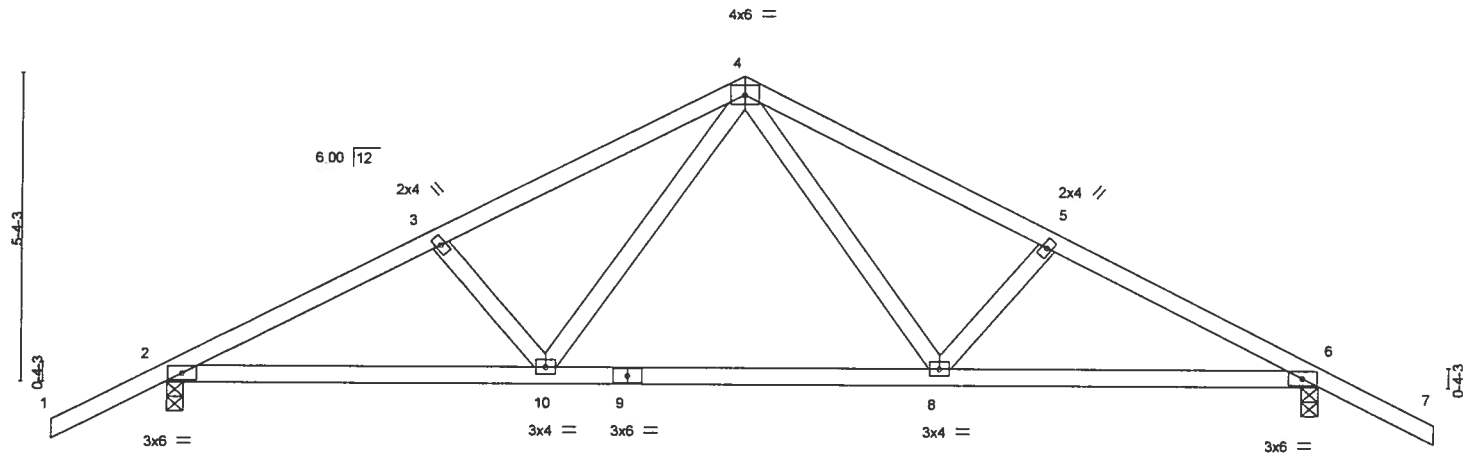
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2208307	Truss T03	Truss Type Common	Qty 9	Ply 1	GIEBEIG - LOT 52 MF	T18998079
Builders FirstSource, Jacksonville, FL - 32244,						Job Reference (optional)

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 15 2019 Page 1  
ID 9B5QRtZPhUL0yMYqzVn3hhzz67b-292Zb58g8MBbWRuE5E1VE6mHNeB46SFr5ZDOXy4nj6



Scale = 1.38 5



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 0.44	Vert(LL)	0.21 8-10	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.95	Vert(CT)	-0.34 8-10	>706	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.26	Horz(CT)	0.04 6	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS					Weight: 96 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-1-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-9-9 oc bracing.

#### REACTIONS.

(lb/size) 2=1053/0-3-8, 6=1053/0-3-8  
Max Horz 2=-81(LC 10)  
Max Uplift 2=-248(LC 12), 6=-248(LC 13)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1772/939, 3-4=-1621/901, 4-5=-1621/901, 5-6=-1772/939  
BOT CHORD 2-10=-691/1541, 8-10=-358/1017, 6-8=-717/1541  
WEBS 4-8=-347/676, 5-8=-247/260, 4-10=-347/676, 3-10=-247/260

#### NOTES- (8)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=248, 6=248.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-7=-54, 10-11=-20, 8-10=-80(F=60), 8-14=-20



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MiTek USA, Inc. FL Cert 6634  
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December 27, 2019

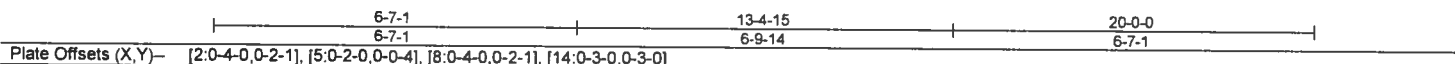
#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MIT-7473 rev. 10/03/2015 BEFORE USE.

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 BCS1 Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314



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8 240 s Dec 6 2019 MITek Industries, Inc. Fri Dec 27 10 54 16 2019 Page 1  
ID:9B5QRIZPhUL0yMYqzVn3hhzz6?b-WLbxoRCIvJS8bTQexYknJIT32hortv?tlmx\_v4nj5



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>2-0-0</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>in (loc)</b>	<b>l/defl</b>	<b>L/d</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.25	TC 0.38	Vert(LL)	-0.03 15-29	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.28	Vert(CT)	-0.07 15-29	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.42	Horz(CT)	0.01 11	n/a	n/a		
BCDL 10.0	Code FBC2017/TP12014		Matrix-MS					Weight: 126 lb	FT = 20%

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

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

**REACTIONS.** All bearings 10-3-8 except (jt=length) 2=0-3-8.  
 (lb) - Max Horz 2=120(LC 13)  
 Max Uplift All uplift 100 lb or less at joint(s) 13 except 2=259(LC 12), 8=163(LC 13), 11=316(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 13, 12, 10, 8 except 2=546(LC 1), 8=281(LC 24), 11=751(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=-625/385, 4-5=-466/318, 5-6=-75/323  
BOT CHORD 2-15=-287/569  
WEBS 5-11=-631/347, 6-11=-286/286, 5-15=-204/382, 4-15=-318/294

**NOTES- (10)**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10, Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf, BCDL=3.0psf, h=18ft, Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=ib) 2=259, 8=163, 11=316, 8=163.
- 10) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

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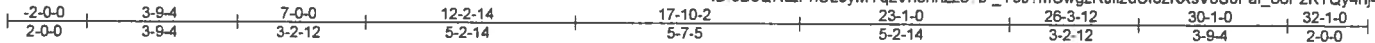
Design valid for use only with MiteK® connectors. This design is based on parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building 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-88 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria VA 22314.



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Tampa, FL 36610

Job 2208307	Truss T04	Truss Type Hip Girder	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998081
Builders FirstSource, Jacksonville, FL - 32244,						

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54 17 2019 Page 1  
ID 9B5QRIZPhULQyMYqzVn3hhzz67b\_Y9J?mCwgzRJI2dCf3zKXsV0S0PaI\_B6P2KTQy4nj4



Scale = 1:55 5

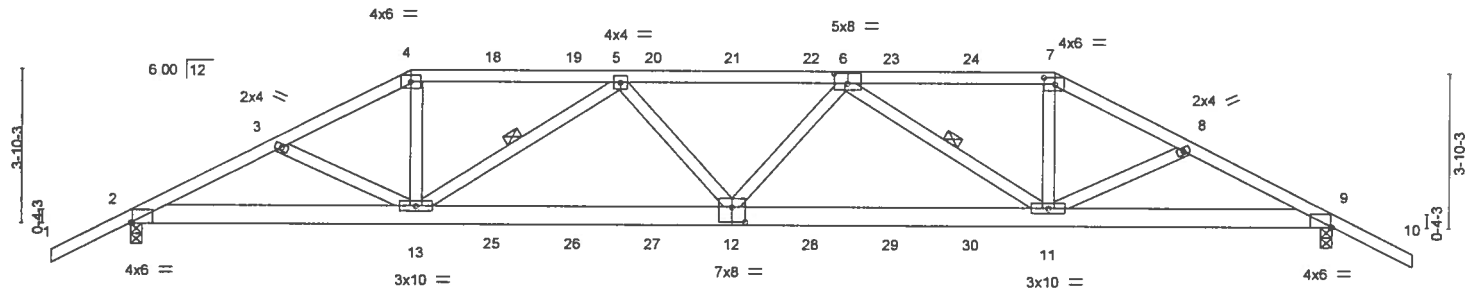


Plate Offsets (X,Y)	[2:0-0-8,0-0-3], [6:0-4-0,0-3-0], [7:0-3-4,0-2-0], [9:0-0-8,0-0-3], [12:0-4-0,0-4-8]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.94	Vert(LL)	-0.24	12	>999	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.38	Vert(CT)	-0.46	11-12	>792		
BCLL 0.0	Lumber DOL 1.25	WB 0.56	Horz(CT)	0.10	9	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS						
	Code FBC2017/TPI2014						Weight: 174 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2 *Except*	TOP CHORD Structural wood sheathing directly applied.
4-6: 2x4 SP M 31	BOT CHORD Rigid ceiling directly applied or 7-6-14 oc bracing.
BOT CHORD 2x6 SP M 26	WEBS 1 Row at midpt 5-13, 6-11
WEBS 2x4 SP No.3	

**REACTIONS.** (lb/size) 2=2220/0-3-8, 9=2256/0-3-8  
Max Horz 2=61(LC 25)  
Max Uplift 2=739(LC 8), 9=795(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4389/1498, 3-4=-4224/1477, 4-5=-3815/1359, 5-6=-5230/1757, 6-7=-3882/1463,  
7-8=-4300/1597, 8-9=-4466/1618  
BOT CHORD 2-13=-1326/3889, 12-13=-1729/5048, 11-12=-1748/5062, 9-11=-1395/3959  
WEBS 4-13=-453/1476, 5-13=-1541/574, 5-12=0/450, 6-12=0/439, 6-11=-1471/483,  
7-11=-403/1448

#### NOTES- (10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf, h=18ft; Cat. II; Exp C; Encl. GCP=0.18; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=739, 9=795.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 99 lb up at 7-0-0, 106 lb down and 99 lb up at 9-0-12, 106 lb down and 99 lb up at 11-0-12, 106 lb down and 99 lb up at 13-0-12, 106 lb down and 99 lb up at 15-0-8, 106 lb down and 99 lb up at 17-0-4, 106 lb down and 99 lb up at 19-0-4, and 106 lb down and 99 lb up at 21-0-4, and 220 lb down and 244 lb up at 23-1-0 on top chord, and 297 lb down and 226 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 15-0-8, 85 lb down at 17-0-4, 85 lb down at 19-0-4, and 85 lb down at 21-0-4, and 297 lb down and 226 lb up at 23-0-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

**LOAD CASE(S)** Standard



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Date:

December 27,2019

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIH-7473 rev. 10/03/2015 BEFORE USE.**  
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Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998081
2208307	T04	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 18 2019 Page 2  
ID 9B5QRtZPhUL0yMYqzVn3hhzz67b-SkjiD6DYRHZANvdpmMaCskOgmrMeJkEIK3nt?sy4nj3

# 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, 7-10=-54, 2-9=-20

Concentrated Loads (lb)

Vert: 4=-106(B) 7=-173(B) 12=-61(B) 13=-293(B) 11=-293(B) 18=-106(B) 19=-106(B) 20=-106(B) 21=-106(B) 22=-106(B) 23=-106(B) 24=-106(B) 25=-61(B)  
26=-61(B) 27=-61(B) 28=-61(B) 29=-61(B) 30=-61(B)

## **WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

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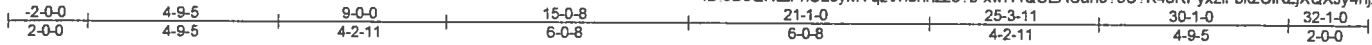
6904 Parke East Blvd  
Tampa, FL 33610

Job 2208307	Truss T05	Truss Type HIP	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998082
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Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:19 2019 Page 1

ID 9B5QRiZPhUL0yMYqzVn3hhzz6?b-xwH4QSEACah073C?K46RPyxziFbk2CiRZjXQXJy4nj2



Scale = 1:55.5

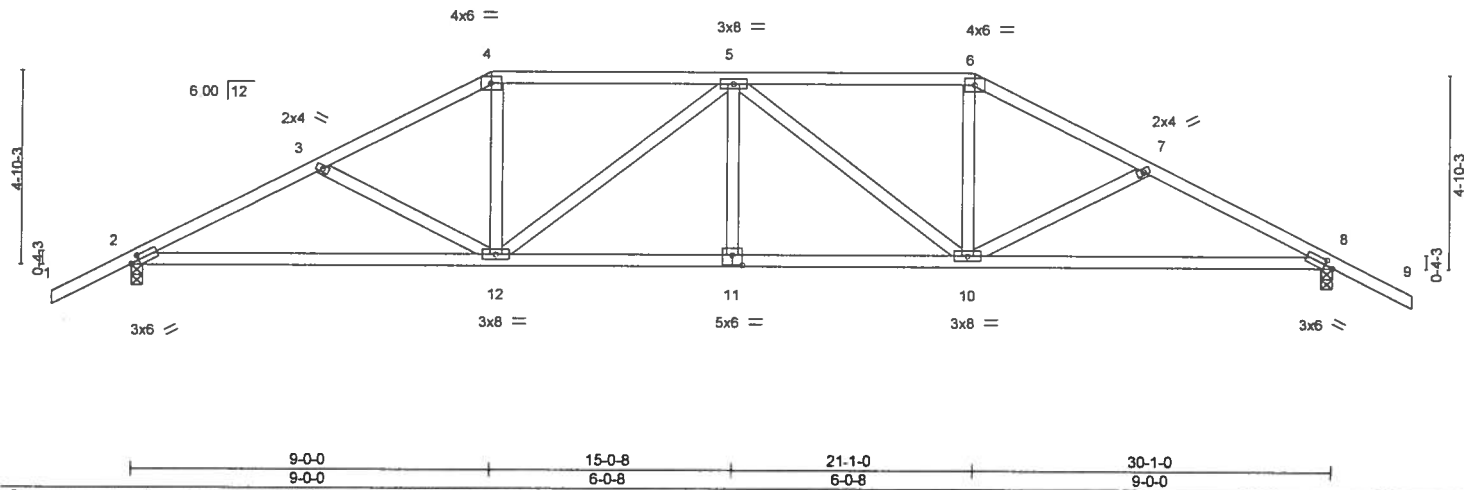


Plate Offsets (X,Y)–		[2'-0-2-9 0-1-8], [8'-0-2-9 0-1-8], [11'-0-3-0 0-3-0]											
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP		
TCLL 20.0		Plate Grip DOL	1.25	TC 0.41		Vert(LL)	-0.16 12-18	>999	240	MT20	244/190		
TCDL 7.0		Lumber DOL	1.25	BC 0.77		Vert(CT)	-0.33 12-18	>999	180				
BCLL 0.0	*	Rep Stress Incr	YES	WB 0.48		Horz(CT)	0.09 8	n/a	n/a				
BCDL 10.0		Code FBC2017/TPI2014		Matrix-MS						Weight: 154 lb	FT = 20%		

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-6-3 oc bracing.

#### REACTIONS.

(lb/size) 8=1221/0-3-8, 2=1221/0-3-8  
Max Horz 2=-75(LC 10)  
Max Uplift 8=-234(LC 13), 2=-234(LC 12)

#### FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2046/1062, 3-4=-1789/916, 4-5=-1565/875, 5-6=-1565/875, 6-7=-1789/916, 7-8=-2046/1062  
BOT CHORD 2-12=-794/1804, 11-12=-747/1863, 10-11=-747/1863, 8-10=-824/1804  
WEBS 3-12=-289/276, 4-12=-202/530, 5-12=-465/216, 5-10=-465/216, 6-10=-202/530, 7-10=-289/276

#### NOTES- (8)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=234, 2=234.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

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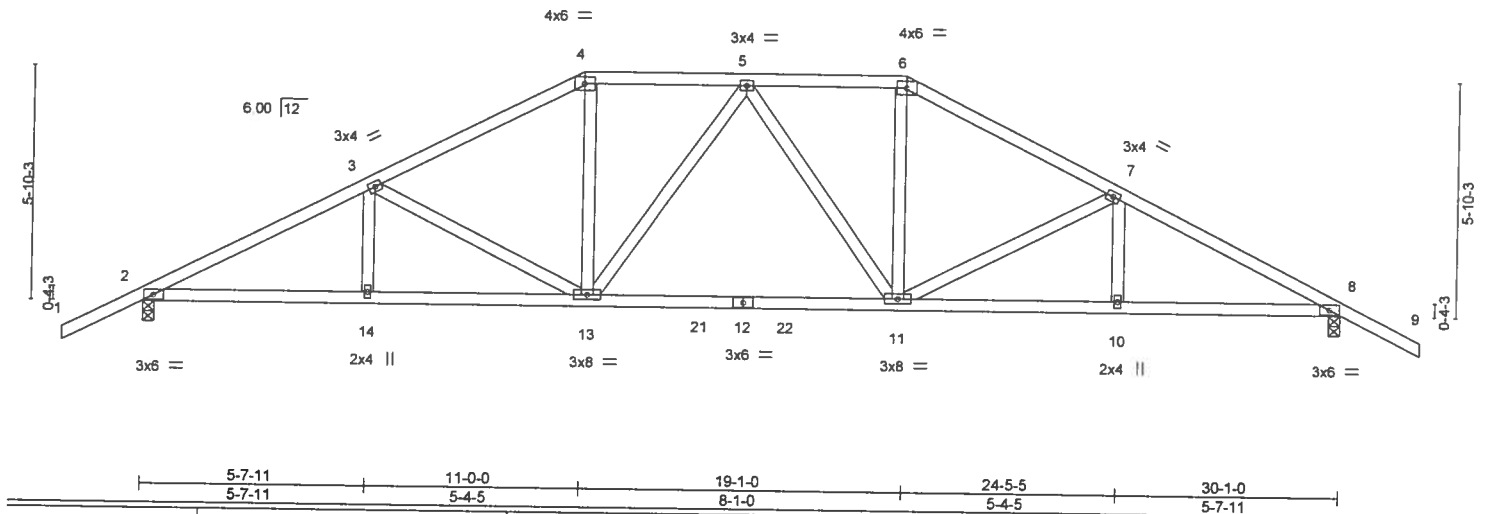


Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998083
2208307	T06	HIP	1	1		

Builders FirstSource, Jacksonville, FL - 32244

8 240 s Dec 6 2019 MiTek Industries, Inc Fri Dec 27 10 54 20 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz67b-P6rSeoFozuptcDnBndgx9T8fzBnhHaoMG\_4ly4nj1

Scale = 1:55.5



LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.40	Vert(LL)	-0.15 11-13	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.63	Vert(CT)	-0.30 11-13	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.08 8	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						

Weight: 160 lb FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-7-2 oc bracing.

#### REACTIONS.

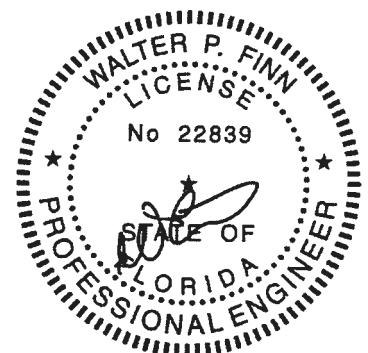
(lb/size) 2=1221/0-3-8, 8=1221/0-3-8  
Max Horz 2=88(LC 10)  
Max Uplift 2=249(LC 12), 8=249(LC 13)

#### FORCES.

(lb) - Max. Comp/Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=2070/1047, 3-4=1636/876, 4-5=1410/844, 5-6=1410/844, 6-7=1636/876,  
7-8=2070/1047  
BOT CHORD 2-14=773/1802, 13-14=773/1802, 11-13=556/1488, 10-11=803/1802, 8-10=803/1802  
WEBS 3-13=458/346, 4-13=196/465, 6-11=196/465, 7-11=458/346

#### NOTES- (8)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=249, 8=249.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
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December 27, 2019

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Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998084
2208307	T07	SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 21 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz6?b-LJPqr8FRkCkxEMMORV8vUNOG33GFW4Ok100XcBy4nj0



Scale: 1/4"=1'

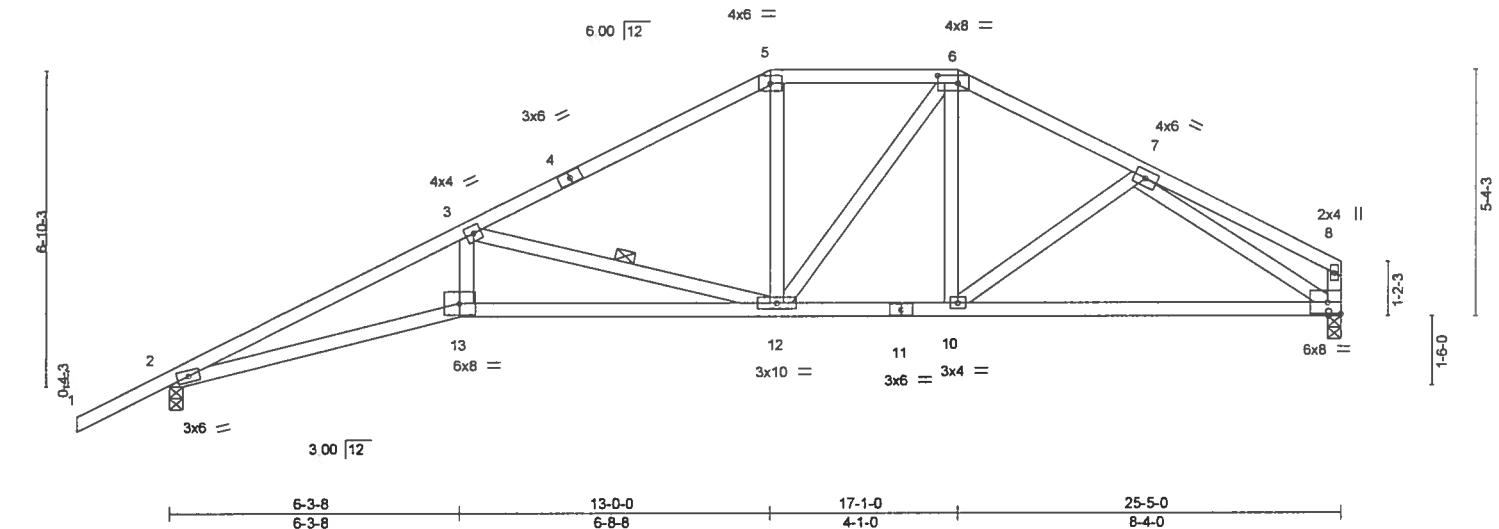


Plate Offsets (X,Y) - [6:0-5-4,0-2-0]		LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
		TCLL 20.0		Plate Grip DOL 1.25		TC 0.61		in (loc) l/defl L/d		MT20		244/190	
		TCDL 7.0		Lumber DOL 1.25		BC 0.77		Vert(LL) -0.18 12-13 >999 240					
		BCLL 0.0 *		Rep Stress Incr YES		WB 0.60		Vert(CT) -0.37 12-13 >810 180					
		BCDL 10.0		Code FBC2017/TPI2014		Matrix-MS		Horz(CT) 0.16 9 n/a n/a					
										Weight: 134 lb		FT = 20%	

#### LUMBER-

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

REACTIONS. (lb/size) 2=1047/0-3-8, 9=931/0-3-8  
Max Horz 2=160(LC 12)  
Max Uplift 2=234(LC 12), 9=167(LC 13)

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

TOP CHORD 2-3=3026/1617, 3-5=1401/762, 5-6=1187/755, 6-7=1216/695  
BOT CHORD 2-13=1522/2737, 12-13=1447/2585, 10-12=442/1042, 9-10=564/1063  
WEBS 3-13=324/763, 3-12=1454/946, 5-12=100/355, 6-12=151/304, 7-9=1143/654

#### NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=234, 9=167.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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MiTek USA, Inc. FL Cert 6634  
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December 27, 2019

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 2208307	Truss T08	Truss Type SPECIAL	Qty 4	Ply 1	GIEBEIG - LOT 52 MF	T18998085
Builders FirstSource, Jacksonville, FL - 32244,						Job Reference (optional)

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:21 2019 Page 1  
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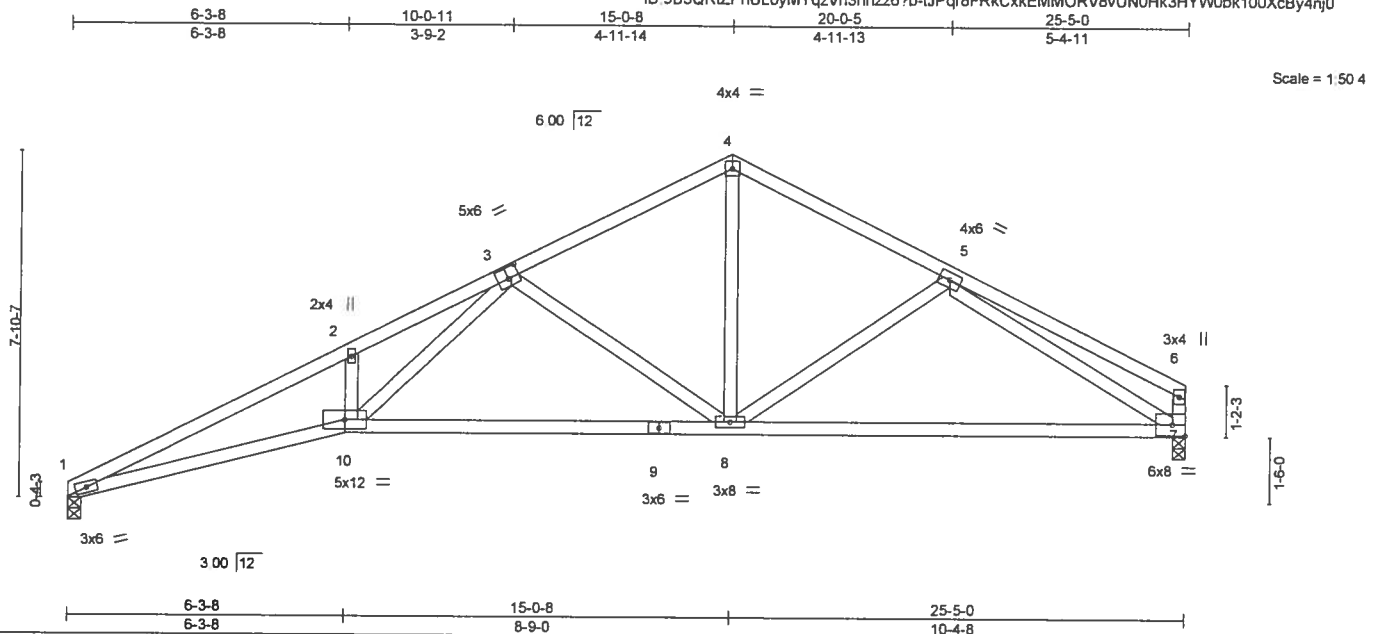


Plate Offsets (X,Y)-		[3:0-3-0,0-3-0]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL	1.25	TC 0.57		Vert(LL)	-0.20 7-8	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL	1.25	BC 0.75		Vert(CT)	-0.41 7-8	>739	180		
BCLL 0.0		Rep Stress Incr	YES	WB 0.84		Horz(CT)	0.14 7	n/a	n/a		
BCDL 10.0		Code FBC2017/TPI2014		Matrix-MS						Weight: 126 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
7-9: 2x4 SP M 31  
WEBS 2x4 SP No.3 \*Except\*  
6-7: 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-8-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 4-7-5 oc bracing.

#### REACTIONS.

(lb/size) 1=935/0-3-8, 7=935/0-3-8  
Max Horz 1=145(LC 12)  
Max Uplift 1=203(LC 12), 7=180(LC 13)

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

TOP CHORD 1-2=-3036/1640, 2-3=-3019/1794, 3-4=-1165/686, 4-5=-1166/690, 5-6=-258/141  
BOT CHORD 1-10=-1541/2747, 8-10=-871/1615, 7-8=-590/1093  
WEBS 2-10=-234/270, 3-10=-888/1465, 3-8=-765/576, 4-8=-395/729, 5-7=-1107/649

#### NOTES- (8)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=203, 7=180.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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MiTek USA, Inc. FL Cert 6634  
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Date:

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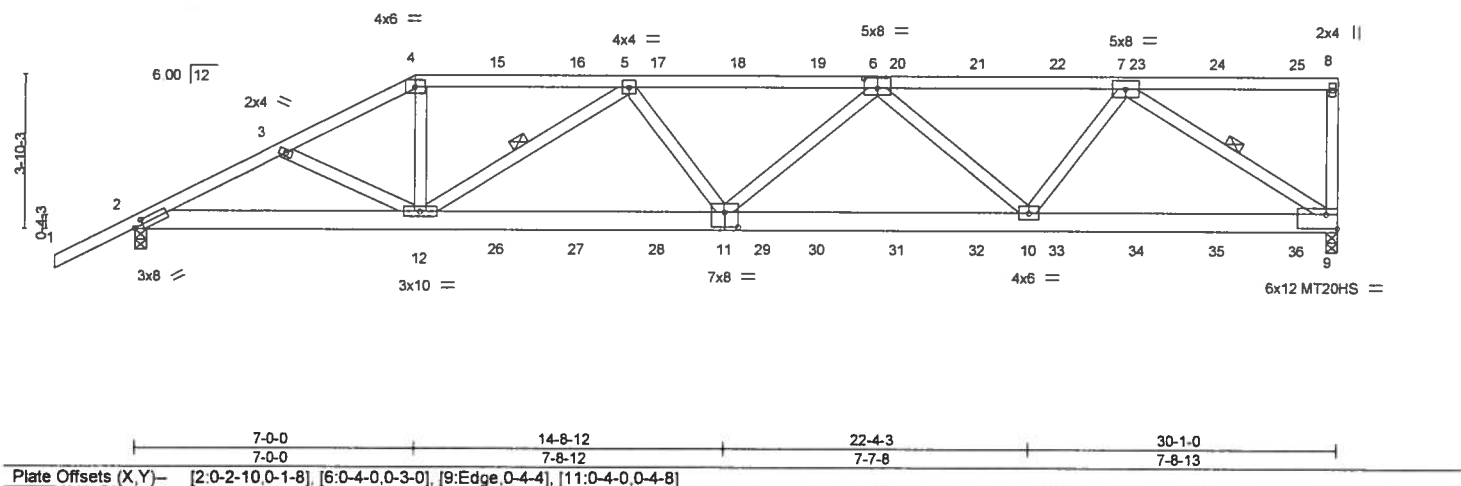
6904 Parke East Blvd  
Tampa, FL 33610

Job 2208307	Truss T09	Truss Type Half Hip Girder	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998086
Builders FirstSource, Jacksonville, FL - 32244,						

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:23 2019 Page 1  
ID: 9B5QRIZPhUL0yMYqzVn3hhzz67b-phWbGqHhGpBSUGWmZwANZo5e7sv4\_v71UKVeh4y4nj\_



Scale = 1:55.5



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.45	Vert(LL)	-0.22 11 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	1.00	Vert(CT)	-0.43 11-12 >839 180	MT20HS		187/143	
BCLL	0.0	Rep Stress Incr	NO	WB	0.90	Horz(CT)	0.11 9 n/a n/a				
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS						Weight: 178 lb	FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP M 31 *Except* 1-4: 2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-7-14 oc purlins, except end verticals.
BOT CHORD	2x6 SP M 26 *Except* 9-11: 2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 5-11-5 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 5-12, 7-9

REACTIONS. (lb/size) 9=2509/0-3-8, 2=2191/0-3-8  
Max Horz 2=146(LC 27)  
Max Uplift 9=798(LC 5), 2=675(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=4323/1391, 3-4=-4157/1369, 4-5=-3754/1260, 5-6=-5087/1555, 6-7=-3866/1126, 8-9=-378/212  
BOT CHORD 2-12=-1296/3831, 11-12=-1633/4973, 10-11=-1543/4845, 9-10=-946/2965  
WEBS 4-12=-406/1448, 5-12=-1516/477, 5-11=0/383, 6-11=-30/456, 6-10=-1325/565, 7-10=-317/1583, 7-9=-3511/1124

#### NOTES- (11)

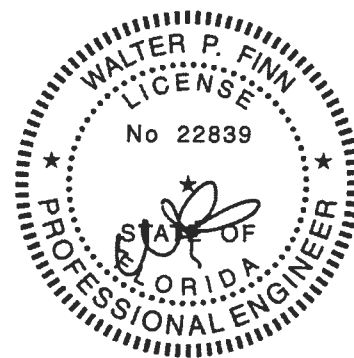
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft, Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=798, 2=675.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 99 lb up at 7-0-0, 106 lb down and 99 lb up at 9-0-12, 106 lb down and 99 lb up at 11-0-12, 106 lb down and 99 lb up at 13-0-12, 106 lb down and 99 lb up at 15-0-12, 106 lb down and 99 lb up at 17-0-12, 106 lb down and 99 lb up at 19-0-12, 106 lb down and 99 lb up at 21-0-12, 106 lb down and 99 lb up at 23-0-12, 106 lb down and 99 lb up at 25-0-12, 106 lb down and 99 lb up at 27-0-12, and 109 lb down and 99 lb up at 29-0-12, and 135 lb down and 96 lb up at 29-11-4 on top chord, and 297 lb down and 226 lb up at 7-0-0, 85 lb down at 9-0-12, 85 lb down at 11-0-12, 85 lb down at 13-0-12, 85 lb down at 15-0-12, 85 lb down at 17-0-12, 85 lb down at 19-0-12, 85 lb down at 21-0-12, 85 lb down at 23-0-12, 85 lb down at 25-0-12, and 85 lb down at 27-0-12, and 87 lb down at 29-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

Continued on page 2

#### LOAD CASE(S) - Standard

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MIT-7473 rev. 10/03/2015 BEFORE USE.**

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Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019



6904 Parke East Blvd  
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998086
2208307	T09	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:23 2019 Page 2  
ID 9B5QRIZPhUL0yMYqzVn3hzz6?b-phWbGqHhGpBSUgVWmZwANZo5e7sv4\_v71UKVeh4y4nj\_

#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-4=54, 4-8=54, 2-9=20

Concentrated Loads (lb)

Vert: 4=106(F) 8=135(F) 12=293(F) 15=106(F) 16=106(F) 17=106(F) 18=106(F) 19=106(F) 20=106(F) 21=106(F) 22=106(F) 23=106(F) 24=106(F)  
25=109(F) 26=61(F) 27=61(F) 28=61(F) 29=61(F) 30=61(F) 31=61(F) 32=61(F) 33=61(F) 34=61(F) 35=61(F) 36=62(F)

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Tampa, FL 33610

Job 2208307	Truss T10	Truss Type MONO HIP	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998087
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Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 24 2019 Page 1

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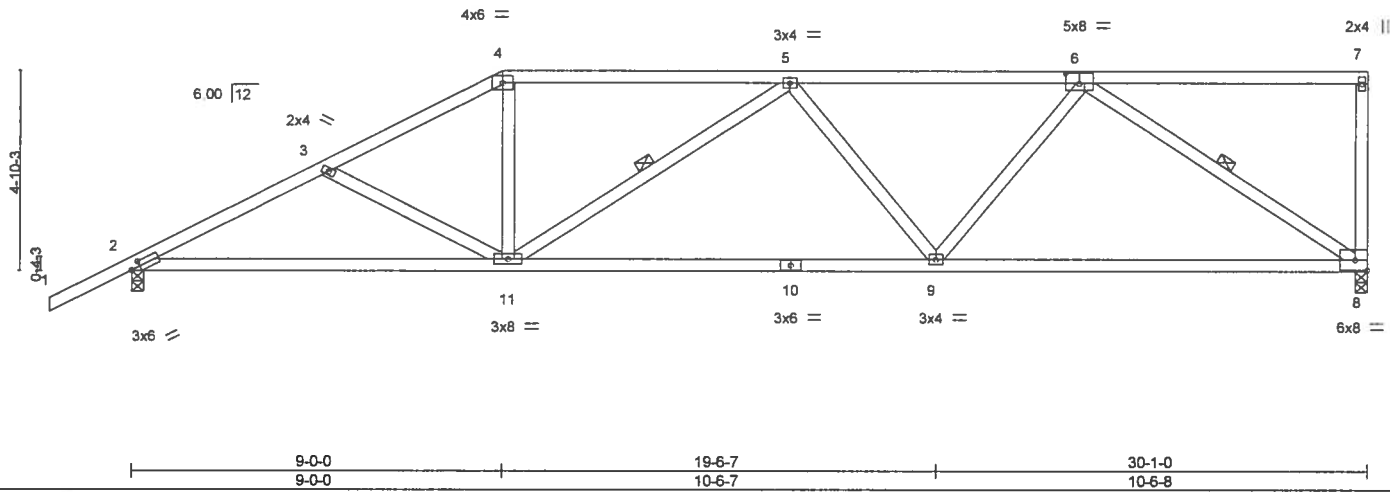


Plate Offsets (X,Y)— [2:0-2-9,0-1-8], [6:0-4-0,0-3-0]									
LOADING (psf)		SPACING- 2-0-0		CSI.	DEFL. in (loc) l/defl L/d			PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.54	Vert(LL)	-0.22	8-9	>999	240
TCDL	7.0	Lumber DOL	1.25	BC 0.90	Vert(CT)	-0.46	8-9	>782	180
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.58	Horz(CT)	0.07	8	n/a	n/a
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS					
				Weight: 155 lb				FT = 20%	

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
8-10: 2x4 SP M 31  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-10-5 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 5-8-6 oc bracing.  
WEBS 1 Row at midpt 5-11, 6-8

**REACTIONS.** (lb/size) 8=1104/0-3-8, 2=1219/0-3-8  
Max Horz 2=180(LC 12)  
Max Uplift 8=286(LC 9), 2=230(LC 9)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=2046/1013, 3-4=1798/871, 4-5=1575/836, 5-6=1667/805  
BOT CHORD 2-11=1071/1801, 9-11=972/1841, 8-9=698/1326  
WEBS 3-11=272/270, 4-11=159/526, 5-11=417/176, 5-9=281/270, 6-9=178/608, 6-8=1548/823

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCp=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=286, 2=230.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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December 27,2019

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**MiTek**

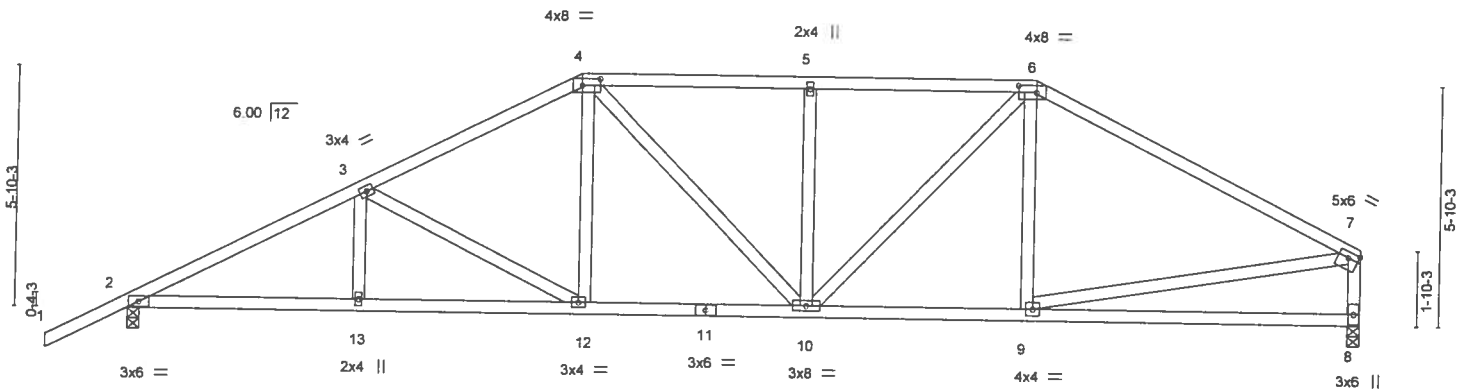
6904 Parke East Blvd  
Tampa, FL 33610

Job 2208307	Truss T11	Truss Type HIP	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998088
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Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:25 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz67b-4eLhWJxnQRAj\_f9gKCReDB7YghESvOKxe\_lkyy4niy

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Plate Offsets (X,Y)– [4.0-5.4,0-2-0], [6.0-5.4,0-2-0], [7.Edge,0-1-12]											
LOADING (psf)		SPACING-2-0-0		CSI.		DEFL. in (loc) I/defl L/d				PLATES GRIP	
TCLL	20.0	Plate Grip DOL 1.25		TC 0.39		Vert(LL) -0.12 8-9 >999 240				MT20 244/190	
TCDL	7.0	Lumber DOL 1.25		BC 0.58		Vert(CT) -0.25 8-9 >999 180					
BCLL	0.0	Rep Stress Incr YES		WB 0.54		Horz(CT) 0.06 8 n/a n/a					
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							
Weight: 168 lb FT = 20%											

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
6-7: 2x4 SP M 31  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
7-8: 2x4 SP No.2

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-1-11 oc bracing.

#### REACTIONS.

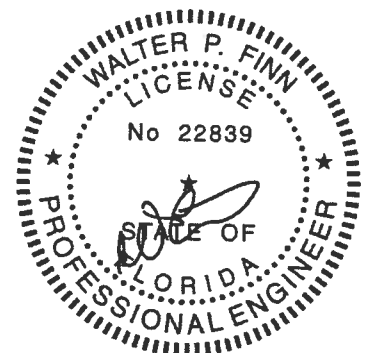
(lb/size) 2=1219/0-3-8, 8=1104/0-3-8  
Max Horz 2=129(LC 12)  
Max Uplift 2=248(LC 12), 8=184(LC 13)

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

TOP CHORD 2-3=-2068/1039, 3-4=-1627/874, 4-5=-1499/888, 5-6=-1499/888, 6-7=-1434/723, 7-8=-1027/584  
BOT CHORD 2-13=-927/1800, 12-13=-927/1800, 10-12=-630/1400, 9-10=-522/1193  
WEBS 3-12=-463/339, 4-12=-124/387, 4-10=-110/259, 5-10=-336/228, 6-10=-218/515, 7-9=-425/1066

#### NOTES- (8)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=248, 8=184.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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December 27, 2019

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Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998089
2208307	T12	SPECIAL	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 26 2019 Page 1  
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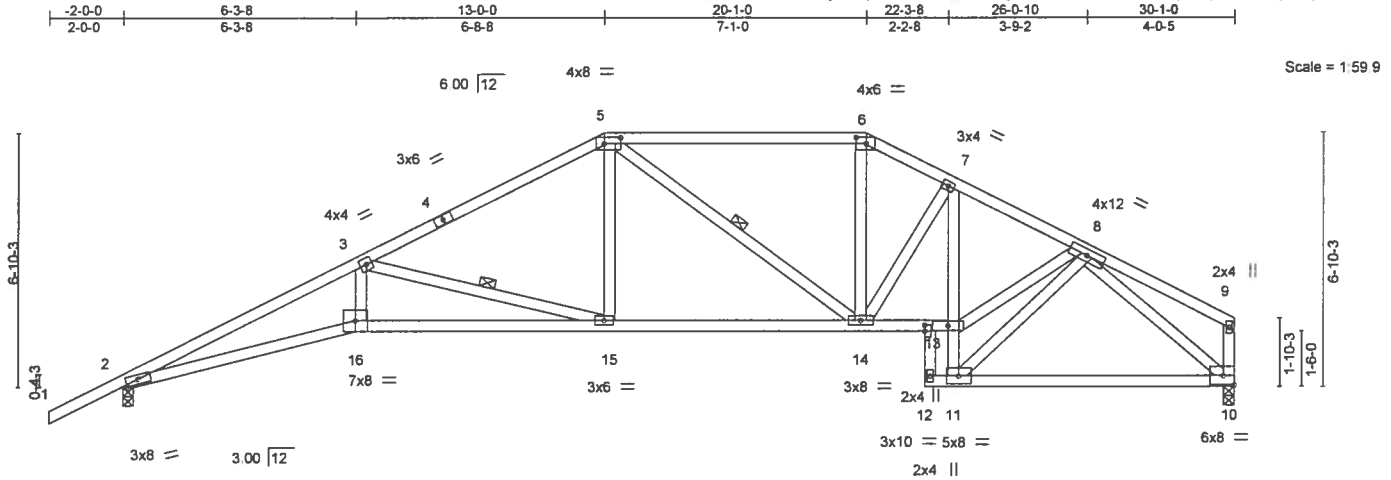


Plate Offsets (X,Y)=-	[2:0-4-0,0-1-9], [5:0-5-4,0-2-0], [6:0-3-4,0-2-0], [17:0-2-0,0-0-0]
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LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25		TC 0.76	Vert(LL)	-0.25 15-16	>999	240	MT20	244/190
BCDL 10.0	Lumber DOL 1.25		BC 0.90	Vert(CT)	-0.50 15-16	>715	180		
	Rep Stress Incr YES		WB 0.71	Horz(CT)	0.29 10	n/a	n/a		
	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 175 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
7-11: 2x4 SP No.3  
WEBS 2x4 SP No.3 \*Except\*  
9-10: 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 4-5-6 oc bracing. Except:  
7-10-0 oc bracing: 11-13  
WEBS 1 Row at midpt 3-15, 5-14

**REACTIONS.** (lb/size) 2=1223/0-3-8, 10=1115/0-3-8  
Max Horz 2=142(LC 12)  
Max Uplift 2=259(LC 12), 10=196(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=3735/1929, 3-5=1918/1000, 5-6=1497/885, 6-7=1671/941, 7-8=1806/971  
BOT CHORD 2-16=1761/3384, 15-16=1674/3203, 14-15=709/1661, 13-14=708/1588,  
11-13=486/995, 10-11=541/1066  
WEBS 3-16=381/906, 3-15=1611/1004, 5-15=214/602, 5-14=313/111, 6-14=206/484,  
8-13=786/1630, 8-11=1265/725, 8-10=1365/712

- NOTES-** (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C, Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=259, 10=196.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Tampa, FL 33610



Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 52 MF	T18998090
2208307	T13	SPECIAL	1	1		

Builders FirstSource, Jacksonville, FL - 32244,

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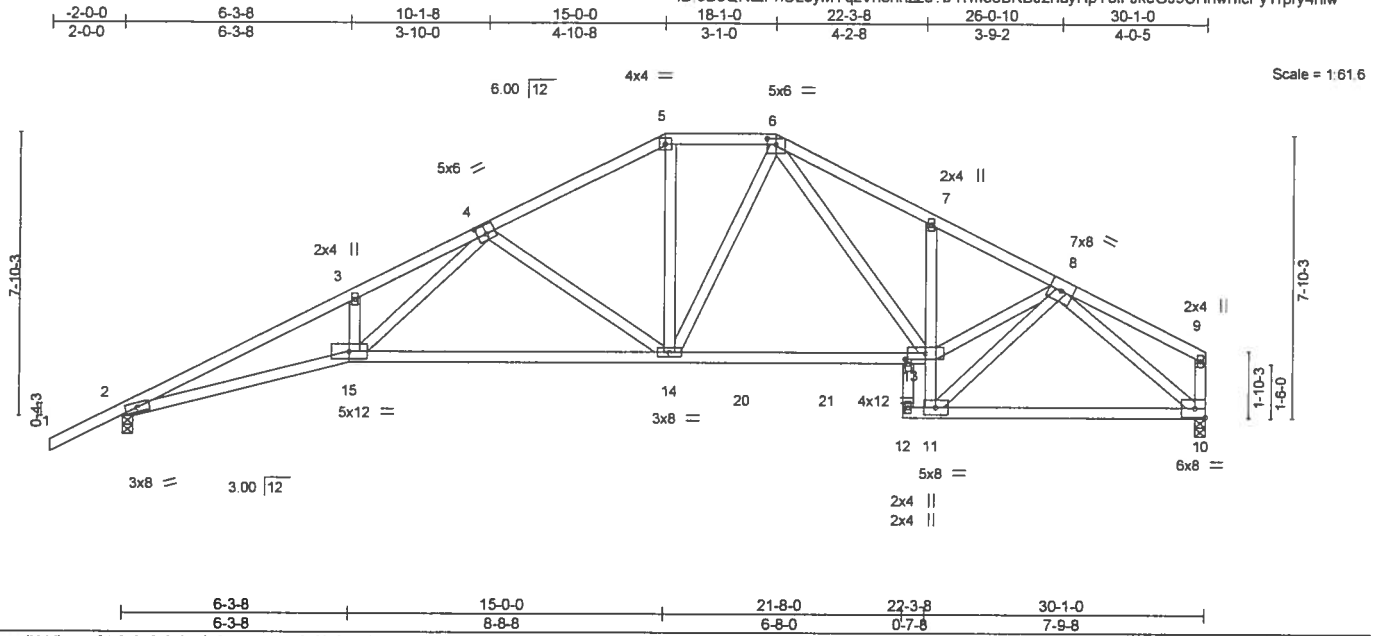


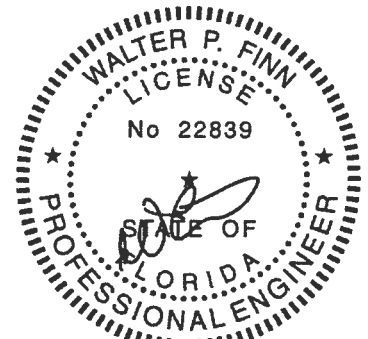
Plate Offsets (X,Y) -	[4:0-3-0,0-3-0], [6:0-3-0,0-2-0], [16:0-1-8,0-1-0]								
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL 1.25	TC 0.58	Vert(LL)	-0.26 14-15	>999	240	MT20	244/190	
TCDL 7.0	Lumber DOL 1.25	BC 0.96	Vert(CT)	-0.60 14-15	>595	180			
BCLL 0.0 *	Rep Stress Incr YES	WB 0.70	Horz(CT)	0.27 10	n/a	n/a			
BCDL 10.0	Code FBC2017/TPI2014	Matrix-MS							
							Weight: 178 lb	FT = 20%	

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-6-6 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2 *Except* 7-11: 2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 7-10-0 oc bracing: 11-13
WEBS	2x4 SP No.3 *Except* 9-10: 2x4 SP No.2		

REACTIONS. (lb/size) 2=1223/0-3-8, 10=1115/0-3-8  
Max Horz 2=154(LC 12)  
Max Uplift 2=269(LC 12), 10=209(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=3694/1898, 3-4=3650/2042, 4-5=1624/910, 5-6=1403/873, 6-7=1902/1147, 7-8=1853/1007  
BOT CHORD 2-15=1724/3341, 14-15=1034/2074, 13-14=529/1316, 11-13=482/1014, 7-13=244/256, 10-11=546/1060  
WEBS 3-15=203/250, 4-15=906/1620, 4-14=830/590, 5-14=234/492, 6-14=65/310, 6-13=383/572, 8-13=820/1711, 8-11=1301/724, 8-10=1356/719

- NOTES- (9)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=269, 10=209.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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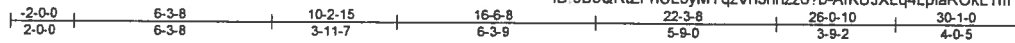


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Tampa, FL 36610

Job 2208307	Truss T14	Truss Type SPECIAL	Qty 2	Ply 1	GIEBEIG - LOT 52 MF	T18998091
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc. Fn Dec 27 10 54 28 2019 Page 1  
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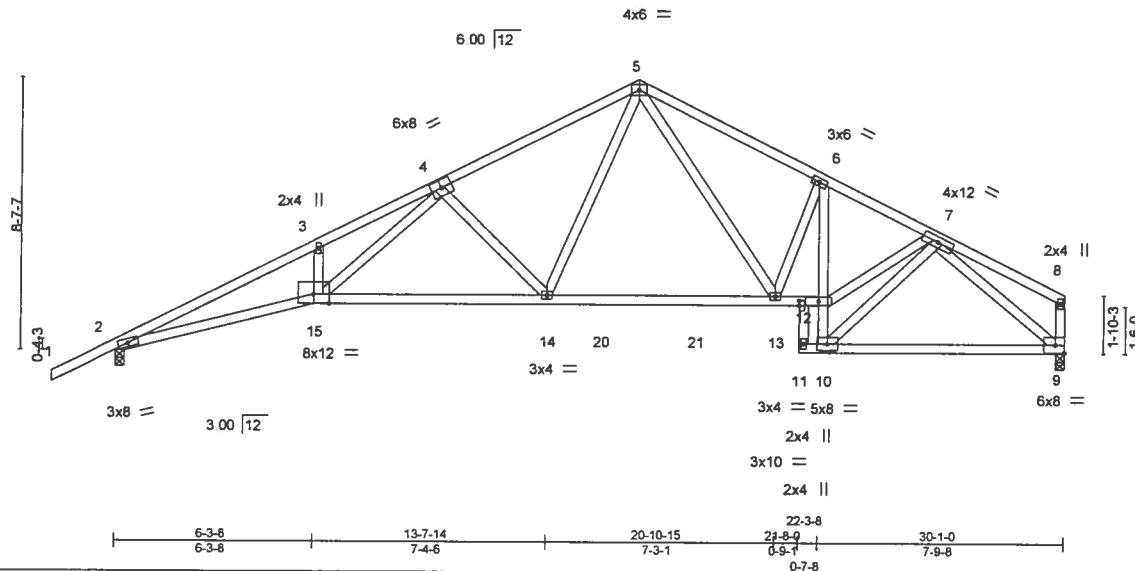


Plate Offsets (X,Y)- [16:0-2-0-0-0-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.59	Vert(LL)	-0.24 14-15	>999	240	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.91	Vert(CT)	-0.50 14-15	>717	180		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.70	Horz(CT)	0.27 9	n/a	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS						
	Code FBC2017/TPI2014						Weight: 176 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
6-10: 2x4 SP No.3  
WEBS 2x4 SP No.3 \*Except\*  
8-9: 2x4 SP No.2

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-5-14 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 4-5-4 oc bracing. Except: 2-2-0 oc bracing: 10-12

**REACTIONS.** (lb/size) 2=1223/0-3-8, 9=1115/0-3-8  
Max Horz 2=164(LC 12)  
Max Uplift 2=276(LC 12), 9=217(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=3680/1918, 3-4=3630/2055, 4-5=1790/1037, 5-6=1779/1068, 6-7=1808/1008  
BOT CHORD 2-15=1742/3325, 14-15=1036/2059, 13-14=476/1217, 12-13=771/1620,  
10-12=480/965, 9-10=552/1060  
WEBS 4-15=912/1601, 4-14=776/583, 5-14=413/798, 5-13=343/588, 6-13=284/295,  
7-12=819/1617, 7-10=1221/716, 7-9=1354/723

- NOTES-** (8)
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - 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.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=276, 9=217.
  - This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MH-7473 rev. 10/03/2015 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 1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N Lee Street, Suite 312, Alexandria, VA 22314.

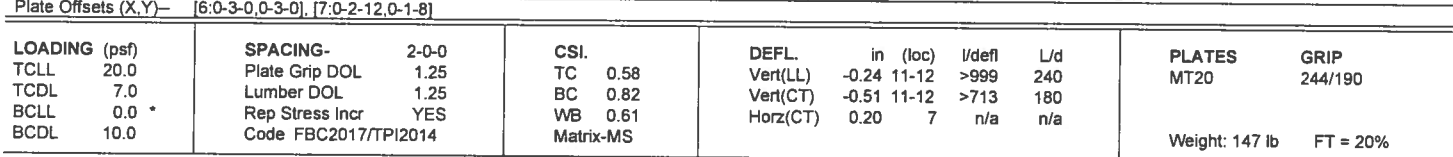
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Builders FirstSource, Jacksonville, FL - 32244

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:29 2019 Page 1  
ID: 9B5QRIZPHUL0yMYqzVn3hhzz6?b=erusXtMSrxfcCbzwwAHnp3LefH?POICvsGwytiv4nju

Scale = 1.584



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

BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 2-5-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 4-7-15 oc bracing.

**REACTIONS.** (lb/size) 2=1221/0-3-8, 7=1221/0-3-8  
Max Horz 2=148(LC 12)  
Max Uplift 2=278(LC 12), 7=260(LC 13)

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

TOP CHORD	2-3=3672/1837, 3-4=3623/976, 4-5=1780/1020, 5-6=1790/1042, 6-7=1971/1062
BOT CHORD	2-12=1599/3318, 11-12=1956/2050, 9-11=4177/1214, 7-9=800/1722
WEBS	4-12=859/1604, 4-11=776/564, 5-11=401/193, 5-9=325/581, 6-9=376/377

NOTES- (8)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* 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.
- 5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 6) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (i=lb) 2=278, 7=260.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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Date:

December 27, 2019

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MJ-7473 rev. 10/03/2015 BEFORE USE

Design valid for use only with MITER® 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-88 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

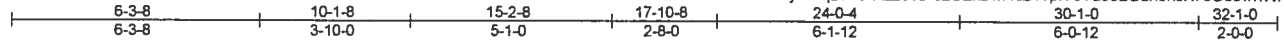
MiTek

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Tampa, FL 36610

Job 2208307	Truss T16	Truss Type SPECIAL	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998093
Job Reference (optional)						

Builders FirstSource, Jacksonville, FL - 32244

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 30 2019 Page 1  
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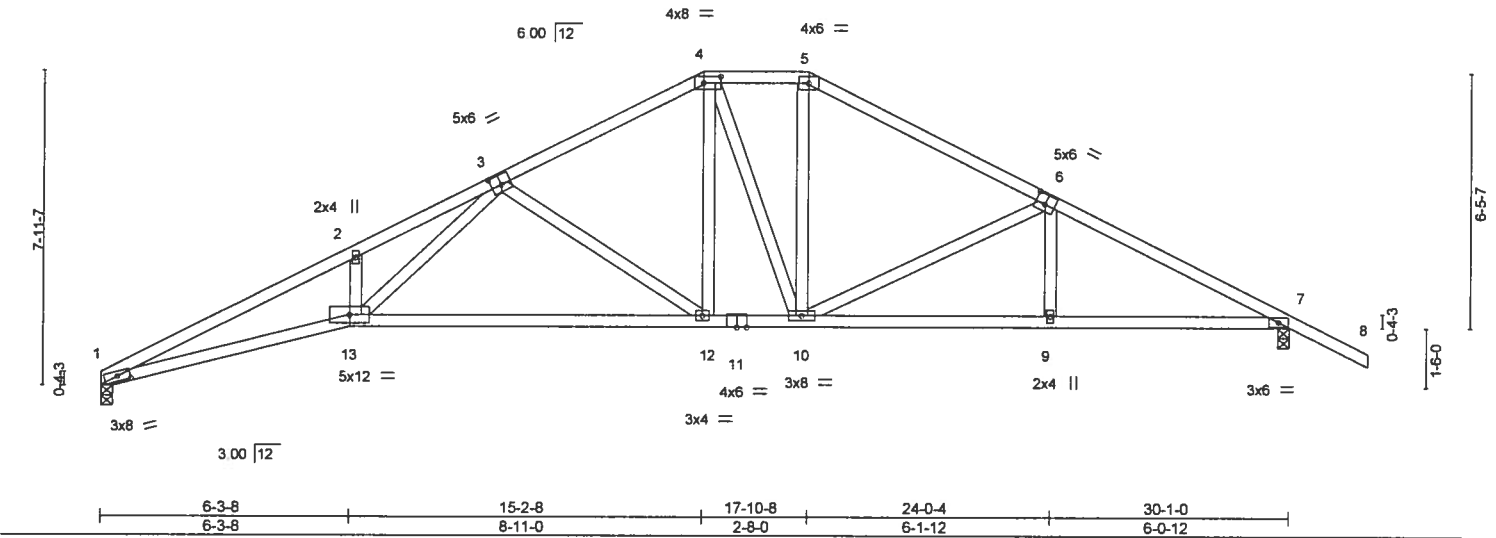


Plate Offsets (X,Y) -	[1:0-4-0,0-1-9], [3:0-3-0,0-3-0], [4:0-5-4,0-2-0], [6:0-3-0,0-3-0]
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LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.68	Vert(LL)	-0.29 12-13	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.95	Vert(CT)	-0.67 12-13	>541	180		
BCLL 0.0	Rep Stress Incr YES	WB 0.67	Horz(CT)	0.21 7	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014	Matrix-MS						
							Weight: 158 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 2-2-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

#### REACTIONS.

(lb/size) 1=1109/0-3-8, 7=1225/0-3-8  
Max Horz 1=113(LC 12)  
Max Uplift 1=234(LC 12), 7=253(LC 13)

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

TOP CHORD 1-2=3754/1921, 2-3=3725/2072, 3-4=1599/903, 4-5=1321/852, 5-6=1548/878,  
6-7=2071/1073  
BOT CHORD 1-13=1699/3403, 12-13=987/2077, 10-12=493/1382, 9-10=822/1796, 7-9=821/1799  
WEBS 2-13=218/266, 3-13=932/1691, 3-12=857/604, 4-12=288/650, 4-10=286/65,  
5-10=206/432, 6-10=548/391, 6-9=0/268

#### NOTES- (9)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf, BCDL=3.0psf, h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (if=lb) 1=234, 7=253.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
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Date:

December 27, 2019

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MI-7473 rev. 10/03/2015 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, 218 N Lee Street, Suite 312, Alexandria, VA 22314.

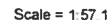


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T18998094

Job Reference (optional)

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 31 2019 Page 1  
ID: 9B5QRtZPhUL0yMYqzVn3hhzz6?b=aE?cyZNIINGCKRv7J1bJFuURyZ5fvsCHCKaR3ycv4nls



Weight: 156 lb      FT = 20%

Structural wood sheathing directly applied or 2-2-12 oc purlins.  
Rigid ceiling directly applied or 2-2-0 oc bracing.

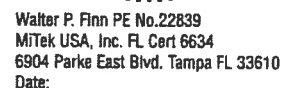
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

**TOP CHORD** 1-2=3754/1921, 2-3=3725/2071, 3-4=1632/924, 4-5=1561/942, 5-6=1481/891,  
6-7=1710/929, 7-8=2022/1106

**BOT CHORD** 1-13=1699/3403, 12-13=1002/2100, 10-12=635/1595, 8-10=857/1784

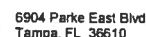
**WEBS** 2-13=221/265, 3-13=921/1674, 3-12=847/592, 4-12=638/1165, 5-12=579/363,  
5-10=265/139, 6-10=226/518, 7-10=361/331

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCPI=0.18; MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Bearing at joint(s) 1 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) 1=233, 8=273.
- 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



December 27, 2019

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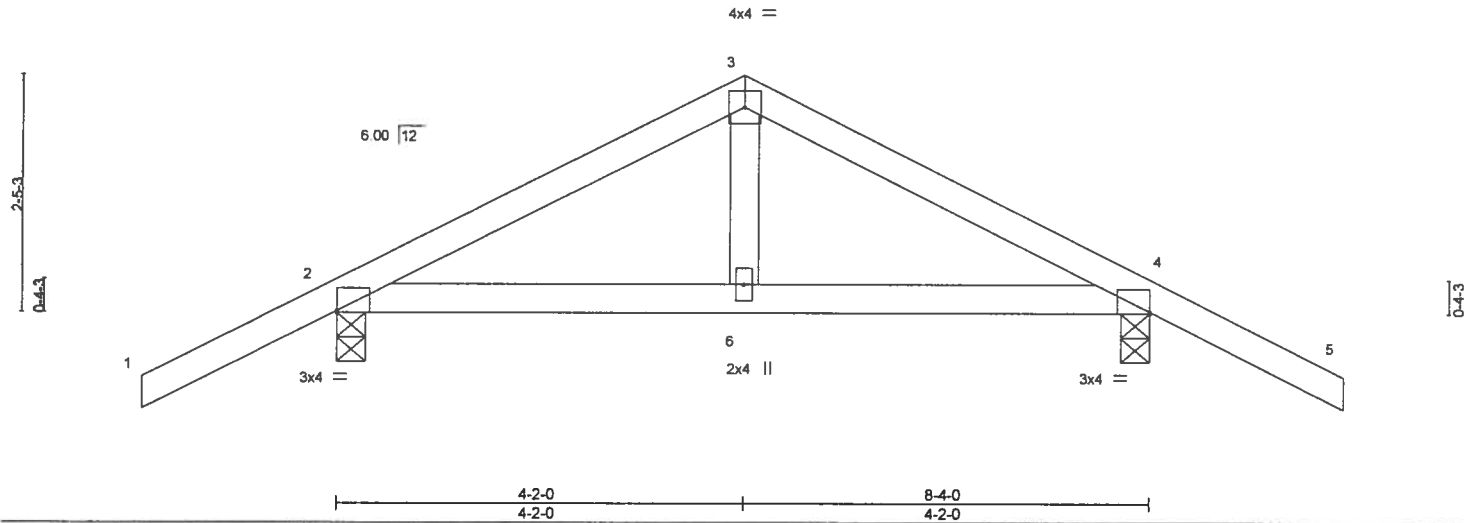


Plate Offsets (X,Y) -		[2:Edge,0-0-4], [4:Edge,0-0-4]									
<b>LOADING (psf)</b>		<b>SPACING- 2-0-0</b>		<b>CSI.</b>		<b>DEFL.</b>		<b>in (loc)</b>		<b>L/defl L/d</b>	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.32	Vert(LL)	0.02	6-12	>999	240	<b>PLATES GRIP</b>
TCDL	7.0	Lumber DOL	1.25	WC	0.17	Vert(CT)	0.02	6-12	>999	180	MT20 244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	4	n/a	n/a	
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							<b>Weight: 36 lb FT = 20%</b>

**LUMBER-**

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

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 9-9-6 oc bracing.

### REACTIONS.

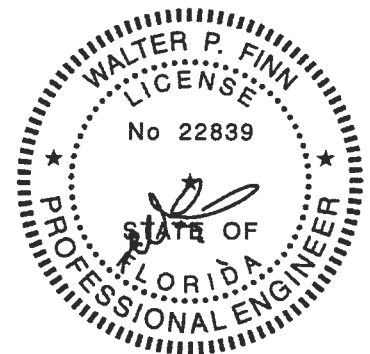
(lb/size) 2=416/0-3-8, 4=416/0-3-8  
Max Horz 2=65(LC 13)  
Max Uplift 2=188(LC 12), 4=188(LC 13)

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

TOP CHORD 2-3=363/545, 3-4=363/545  
BOT CHORD 2-6=344/284, 4-6=344/284  
WEBS 3-6=265/177

NOTES- (7)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDF=4.2psf, BCDL=3.0psf, h=18ft, Cat. II; Exp C; Encl., GCp1=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=188, 4=188.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TP1 1 as referenced by the building code.



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December 27, 2019



**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

**WARNING:** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-1413 rev. 10/03/2015 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 1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



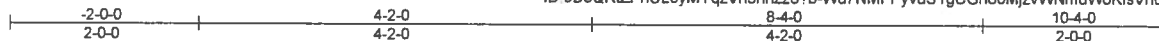
6904 Parke East Blvd  
Tampa, FL 36610

Job 2208307	Truss T18G	Truss Type GABLE	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998096
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8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 33 2019 Page 1

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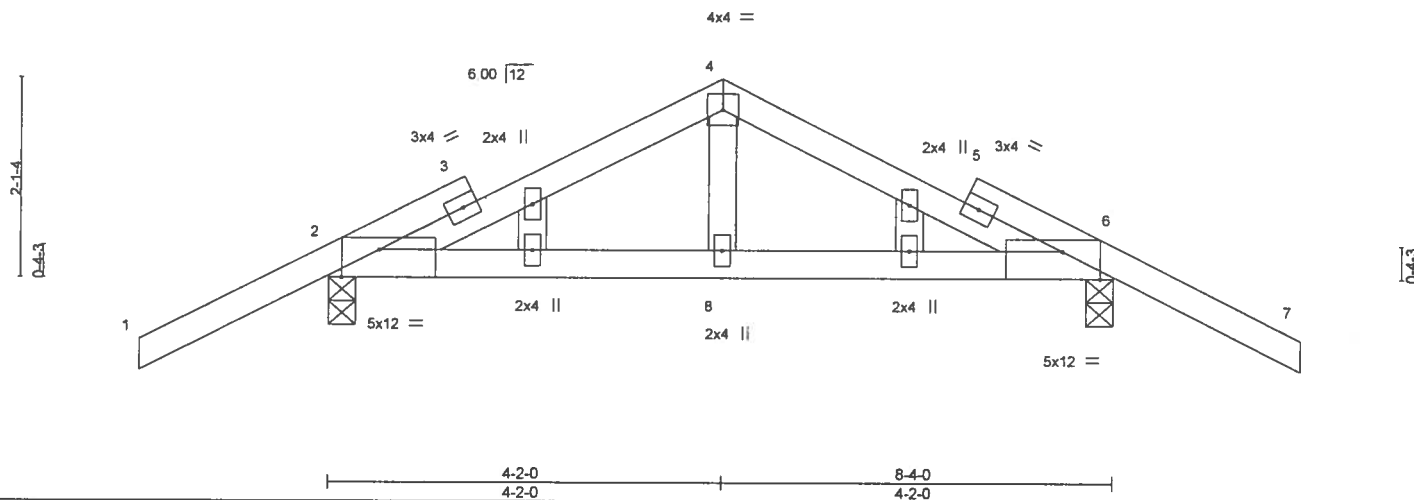


Plate Offsets (X,Y) -		[2:0-4-13,Edge], [6:0-4-13,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.25	TC 0.38
TCDL 7.0	Lumber DOL	1.25	BC 0.15
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06
BCDL 10.0	Code	FBC2017/TPI2014	Matrix-MS
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) 0.03 8-19 >999 240
			Vert(CT) -0.02 8 >999 180
			Horz(CT) -0.00 6 n/a n/a
			PLATES GRIP
			MT20 244/190
			Weight: 40 lb FT = 20%

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

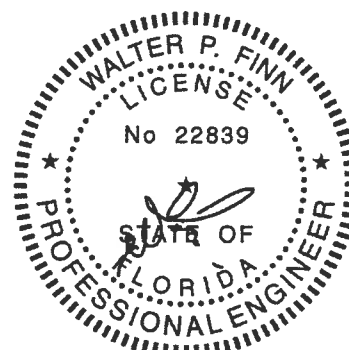
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 7-11-15 oc bracing.

**REACTIONS.** (lb/size) 2=413/0-3-8, 6=413/0-3-8  
Max Horz 2=58(LC 12)  
Max Uplift 2=191(LC 12), 6=191(LC 13)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-4=313/506, 4-6=313/504  
BOT CHORD 2-8=523/351, 6-8=523/351

**NOTES-** (9)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) 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
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=191, 6=191.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MIT-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MITTEK 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314

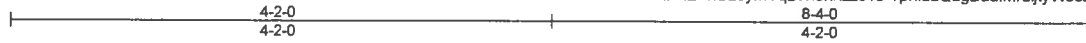
**MiTek**

6904 Parke East Blvd  
Tampa, FL 36610

Job 2208307	Truss T19	Truss Type COMMON	Qty 2	Ply 1	GIEBEIG - LOT 52 MF	T18998097
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Builders FirstSource, Jacksonville, FL - 32244,

8 240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54 34 2019 Page 1  
ID:9B5QRIZPhUL0yMYqzVn3hhzz6?b-?phlaaQagBaulMruijtyW63Z6lr235te0YfjYxy4nip



Scale = 1:17.1

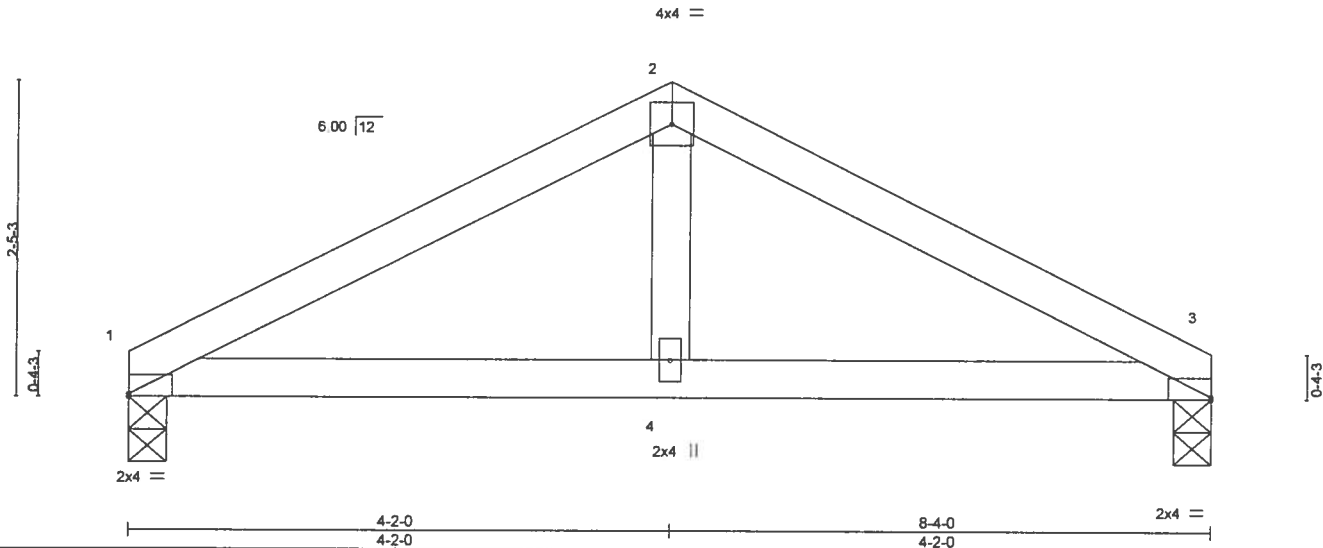


Plate Offsets (X,Y)- [1:Edge,0-0-4], [3:Edge,0-0-4]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.27	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.21	Vert(CT)	-0.02	4-7	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	3	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						Weight: 29 lb	FT = 20%

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 7-11-9 oc bracing.

#### REACTIONS.

(lb/size) 1=308/0-3-8, 3=308/0-3-8  
Max Horz 1=28(LC 8)  
Max Uplift 1=120(LC 9), 3=120(LC 8)

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

TOP CHORD 1-2=-426/651, 2-3=-426/651  
BOT CHORD 1-4=-508/354, 3-4=-508/354  
WEBS 2-4=-328/188

#### NOTES- (7)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=120, 3=120.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27,2019

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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 ANSUTPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N Lee Street, Suite 312, Alexandria, VA 22314.



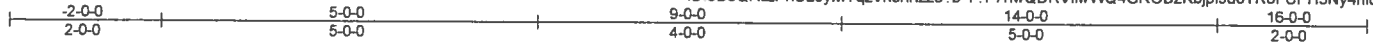
6904 Parke East Blvd  
Tampa, FL 33610



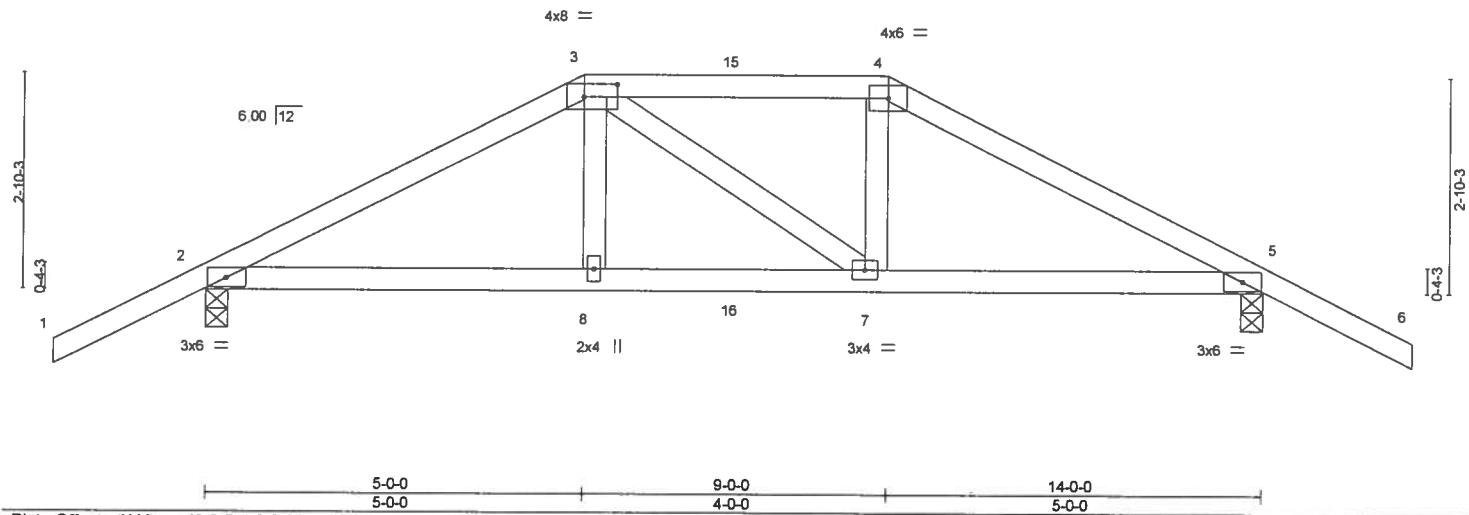
Job 2208307	Truss T20	Truss Type HIP GIRDER	Qty 1	Ply 1	GIEBEIG - LOT 52 MF	T18998098
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10:54:35 2019 Page 1  
ID: 9B5QRizPhUL0yMYqzVn3hhzz67b-T?F7nwQDRVilwWQ4GROB2Kbpi9uoYRoFCPH5Ny4nio



Scale = 1:29.3



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.34	Vert(LL)	0.05	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.36	Vert(CT)	-0.05				
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.11	Horz(CT)	0.02				
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							
								Weight: 63 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-0-9 oc purins.  
BOT CHORD Rigid ceiling directly applied or 6-10-0 oc bracing.

#### REACTIONS.

(lb/size) 2=811/0-3-8, 5=829/0-3-8  
Max Horz 2=48(LC 7)  
Max Uplift 2=473(LC 5), 5=495(LC 4)

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

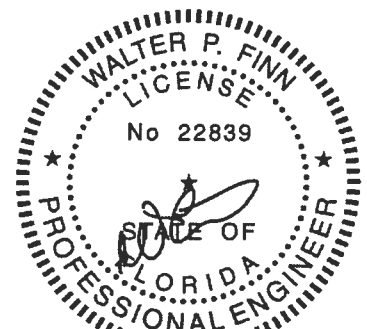
TOP CHORD 2-3=-1179/842, 3-4=-1049/823, 4-5=-1220/890  
BOT CHORD 2-8=-720/1005, 7-8=-729/1015, 5-7=-740/1041  
WEBS 3-8=-156/302, 4-7=-121/290

#### NOTES- (10)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf, BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope); porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=473, 5=495.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 72 lb down and 104 lb up at 5-0-0, and 54 lb down and 104 lb up at 7-0-0, and 165 lb down and 232 lb up at 9-0-0 on top chord, and 144 lb down and 127 lb up at 5-0-0, and 47 lb down and 58 lb up at 7-0-0, and 144 lb down and 127 lb up at 8-10-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 3-4=-54, 4-6=-54, 9-12=-20  
Concentrated Loads (lb)  
Vert: 3=-54(B) 4=-119(B) 8=-64(B) 7=-64(B) 15=-54(B) 16=-33(B)



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

#### WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

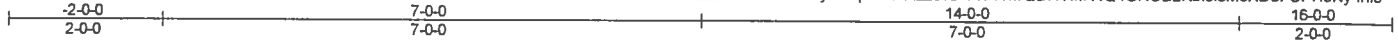
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 216 N. Lee Street, Suite 312, Alexandria, VA 22314.

**MiTek**

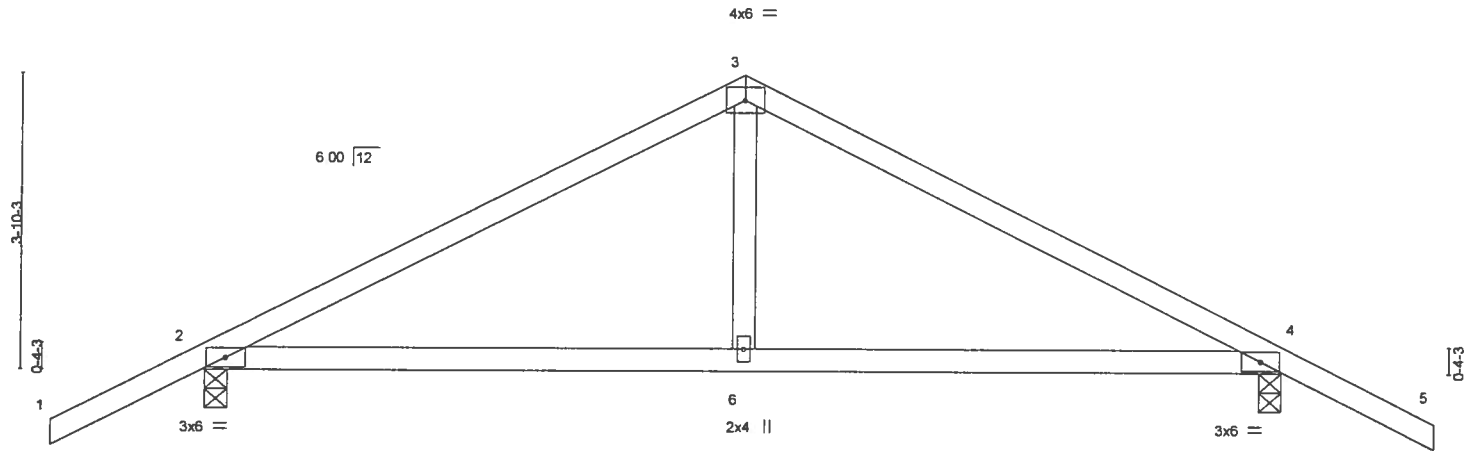
6904 Parke East Blvd  
Tampa, FL 33610

Job 2208307	Truss T21	Truss Type COMMON	Qty 3	Ply 1	GIEBEIG - LOT 52 MF	T18998099
Builders FirstSource, Jacksonville, FL - 32244,						Job Reference (optional)

8.240 s Dec 6 2019 MiTek Industries, Inc. Fri Dec 27 10 54:35 2019 Page 1  
ID 9B5QRIZPhUL0yMYqzVn3hhzz6?b-T?F7nwQDRVilwWQ4GROB2Kbfsi6MoXDoFCPh5Ny4nio



Scale = 1.28 9



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.59	Vert(LL)	0.16 6-12 >999 240	MT20		244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.53	Vert(CT)	0.14 6-12 >999 180				
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01 4 n/a n/a				
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							
								Weight: 56 lb		FT = 20%	

#### LUMBER-

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

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-9-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-3-14 oc bracing.

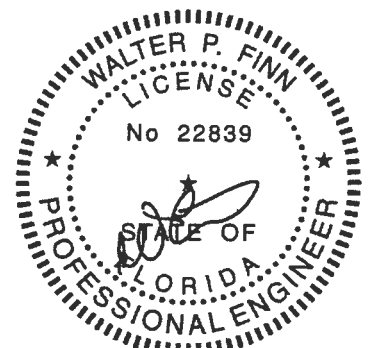
REACTIONS. (lb/size) 2=626/0-3-8, 4=626/0-3-8  
Max Horz 2=61(LC 11)  
Max Uplift 2=219(LC 9), 4=219(LC 8)

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

TOP CHORD 2-3=705/949, 3-4=705/949  
BOT CHORD 2-6=686/562, 4-6=686/562  
WEBS 3-6=493/320

#### NOTES- (7)

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) and C-C Exterior(2) 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
- 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.
- All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=219, 4=219.
- This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Walter P. Finn PE No.22839  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

December 27, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

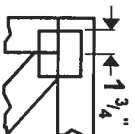
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N Lee Street, Suite 312, Alexandria, VA 22314.

**MiTek**

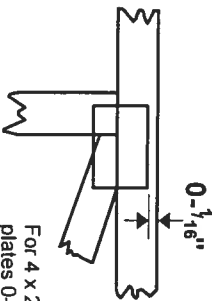
6904 Parke East Blvd  
Tampa, FL 36610

# 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- 1/16" 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 X 4

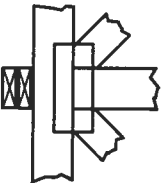
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



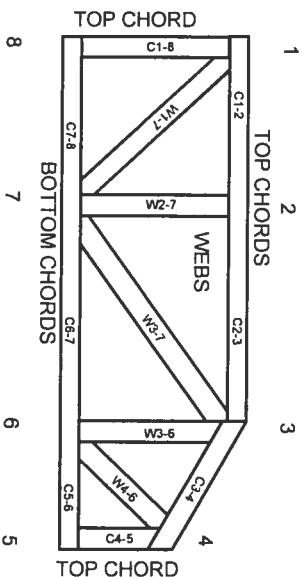
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8 dimensions shown in ft-in-sixteenths (Drawings not to scale)



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/TP1 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. 10/03/2015

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor 1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.

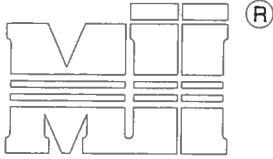
Polank

AUGUST 1, 2016

# T-BRACE / I-BRACE DETAIL WITH 2X BRACE ONLY

MII-T-BRACE 2

MiTek USA, Inc. Page 1 of 1



MiTek USA, Inc.  
ENGINEERED BY  
**TRENCO**  
A MiTek Affiliate

Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

Note: This detail NOT to be used to convert T-Brace / I-Brace webs to continuous lateral braced webs.

## Nailing Pattern

T-Brace size	Nail Size	Nail Spacing
2x4 or 2x6 or 2x8	10d (0.131" X 3")	6" o.c.
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)		

## Brace Size for One-Ply Truss

### Specified Continuous Rows of Lateral Bracing

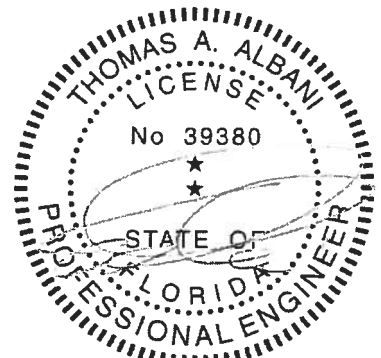
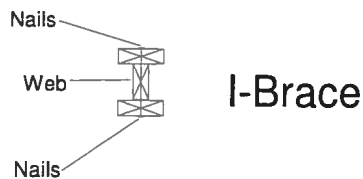
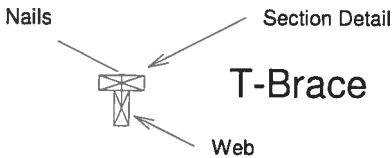
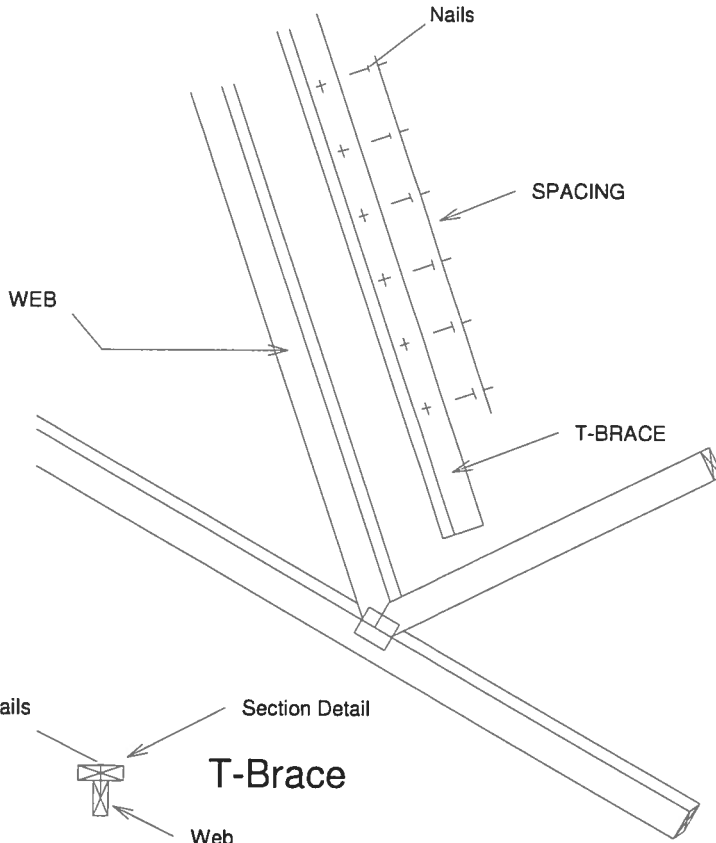
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

## Brace Size for Two-Ply Truss

### Specified Continuous Rows of Lateral Bracing

Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

T-Brace / I-Brace must be same species and grade (or better) as web member.



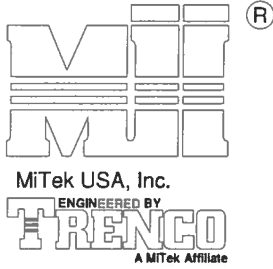
Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018

AUGUST 1, 2016

SCAB-BRACE DETAIL

MII-SCAB-BRACE



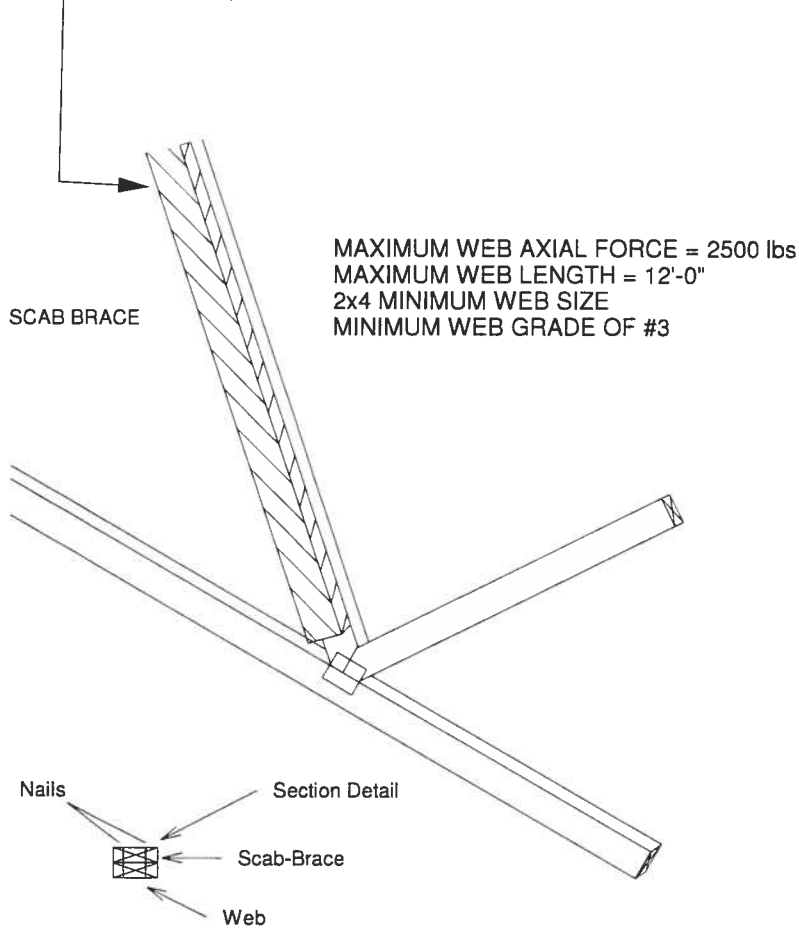
MiTek USA, Inc.

Page 1 of 1

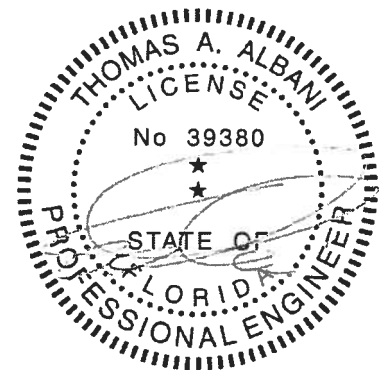
Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.  
Scab must cover full length of web +/- 6".

\*\*\* THIS DETAIL IS NOT APPLICABLE WHEN BRACING IS \*\*\*  
REQUIRED AT 1/3 POINTS OR I-BRACE IS SPECIFIED.

APPLY 2x\_\_\_ SCAB TO ONE FACE OF WEB WITH  
2 ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C.  
SCAB MUST BE THE SAME GRADE, SIZE AND  
SPECIES (OR BETTER) AS THE WEB.

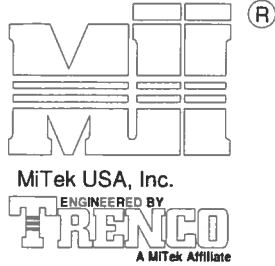


Scab-Brace must be same species grade (or better) as web member.

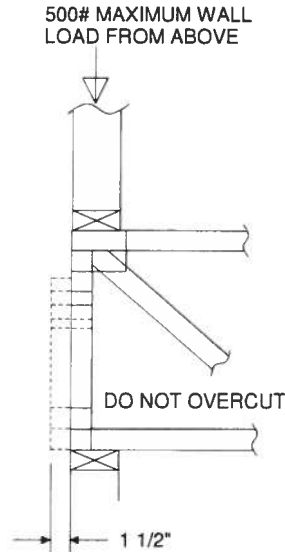


Thomas A. Albani PE No.39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

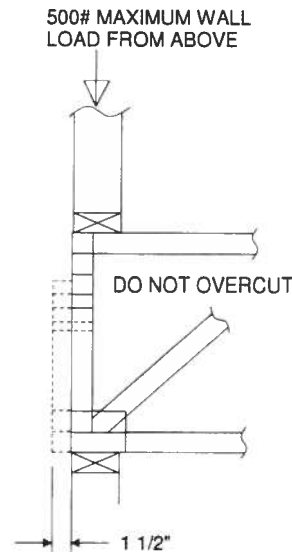
February 12, 2018



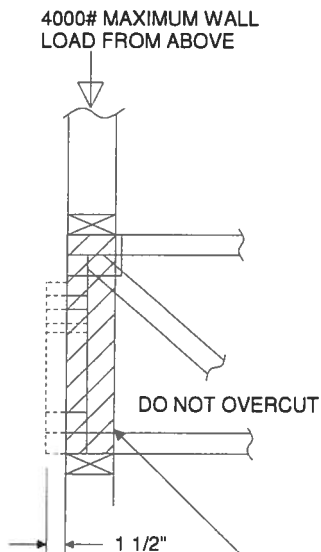
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X ORIENTATION ONLY.
6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.



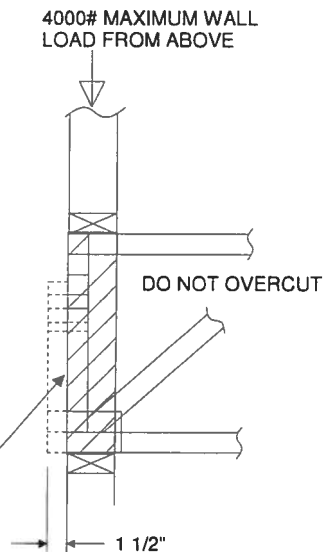
REFER TO INDIVIDUAL  
TRUSS DESIGN FOR  
PLATE SIZES AND  
LUMBER GRADES



TRUSSES BUILT  
WITH 4x2 MEMBERS

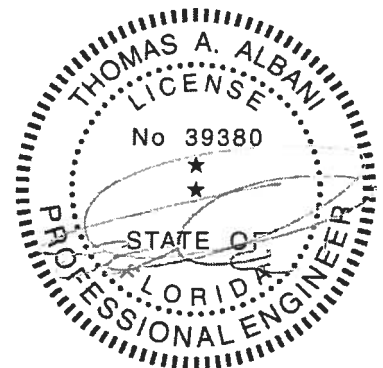


REFER TO INDIVIDUAL  
TRUSS DESIGN FOR  
PLATE SIZES AND  
LUMBER GRADES



TRUSSES BUILT  
WITH 4x2 MEMBERS

ATTACH 2x4 SQUASH BLOCK (CUT TO FIT TIGHTLY)  
TO BOTH SIDES OF THE TRUSS AS SHOWN WITH  
10d (0.131" X 3") NAILS SPACED 3" O.C.



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Date:

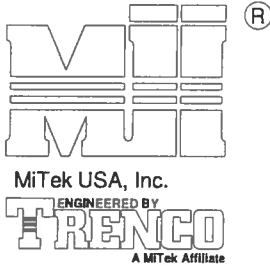
February 12, 2018

AUGUST 1, 2016

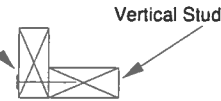
## Standard Gable End Detail

MII-GE130-D-SP

MiTek USA, Inc. Page 1 of 2

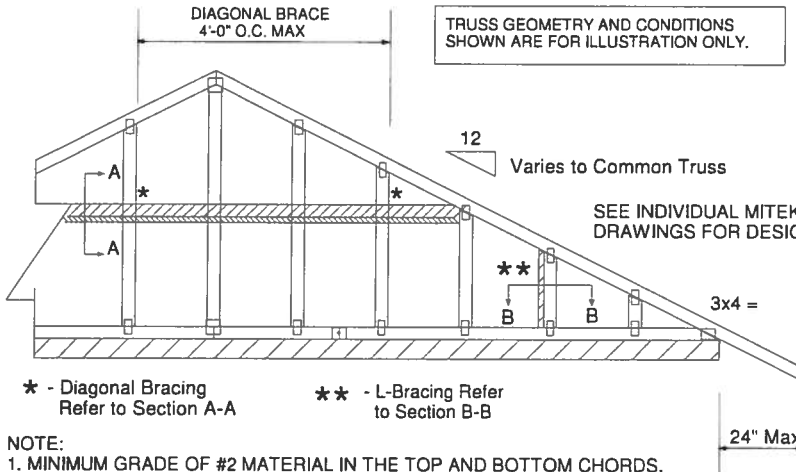


Typical 1x4 L-Brace Nailed To  
2x Verticals W/10d Nails spaced 6" o.c.



SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.



\* - Diagonal Bracing  
Refer to Section A-A

\*\* - L-Bracing Refer  
to Section B-B

## NOTE:

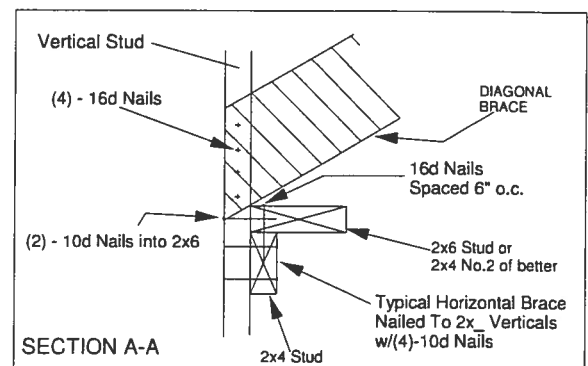
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
			Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	3-9-13	4-1-1	5-9-6	7-1-3	11-5-7
2x4 SP No. 3 / Stud	16" O.C.	3-5-4	3-6-8	5-0-2	6-10-8	10-3-13
2x4 SP No. 3 / Stud	24" O.C.	2-9-11	2-10-11	4-1-1	5-7-6	8-5-1

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

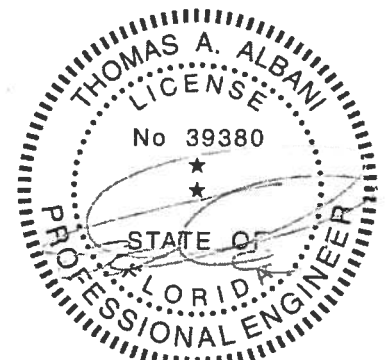
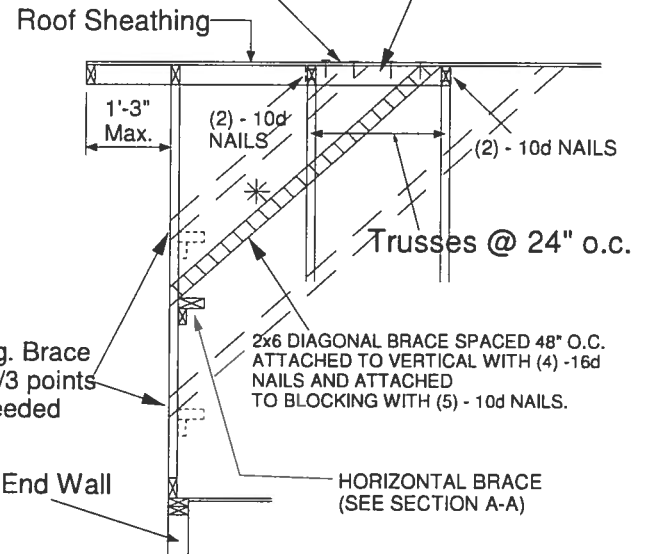
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE D  
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH  
ASCE 7-10 160 MPH  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

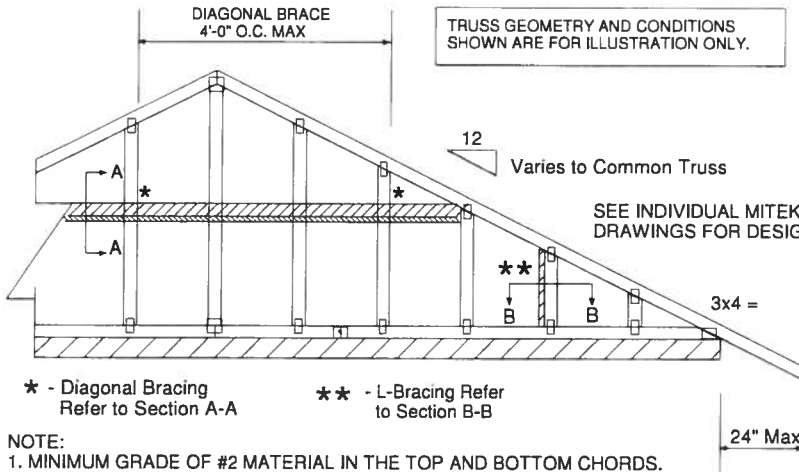
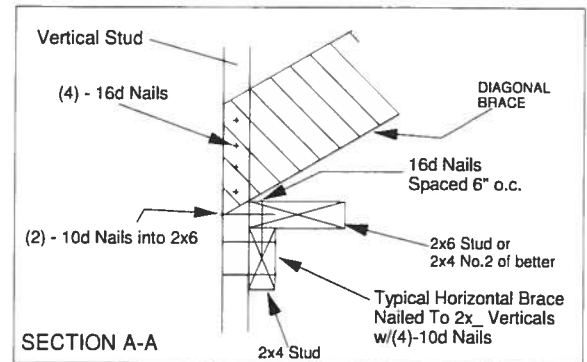
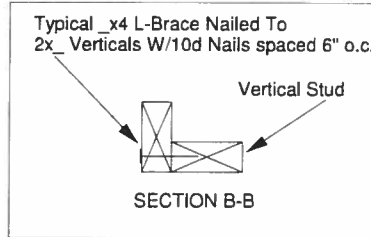
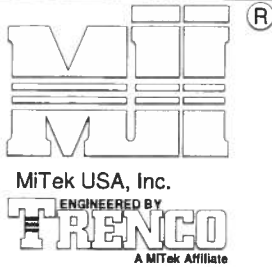
(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



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Date:

February 12, 2018



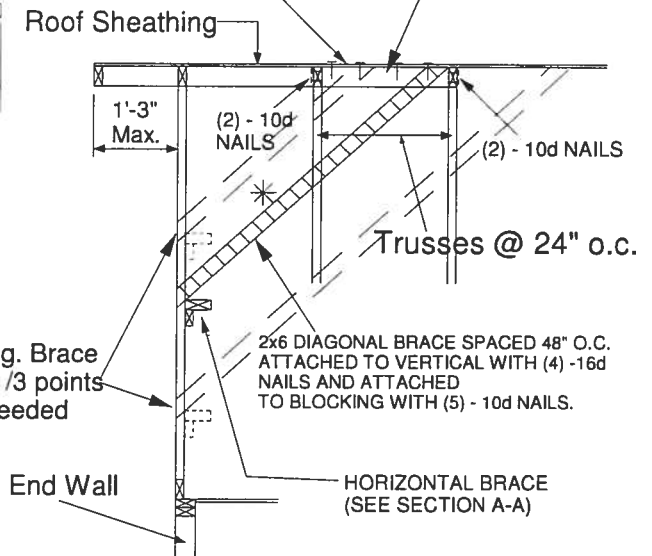


## NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

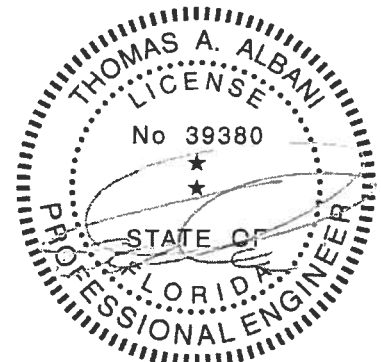


Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
			Maximum Stud Length			
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1
2x4 SP No. 3 / Stud	24" O.C.	3-0-10	3-1-12	4-5-6	6-1-5	9-1-15

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 l-braces attached to both edges. Fasten T and l braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

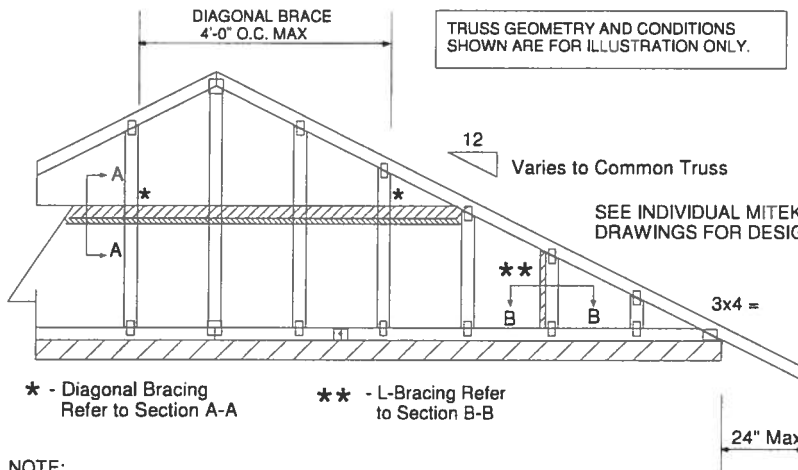
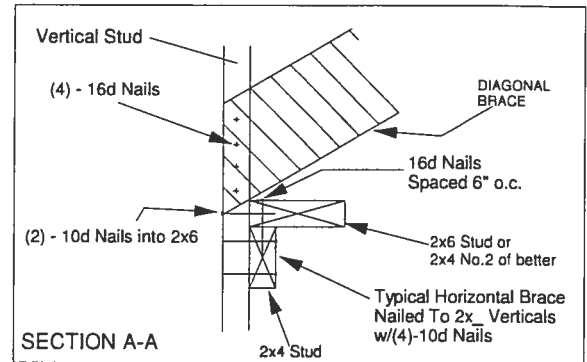
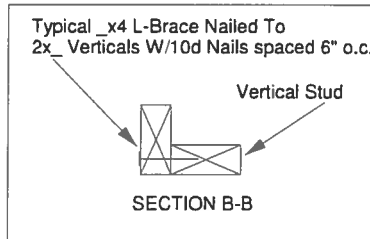
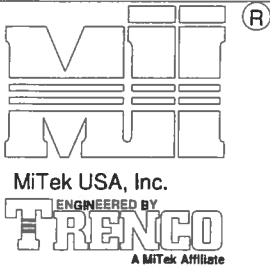
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH  
ASCE 7-10 160 MPH  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



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Date:

February 12, 2018

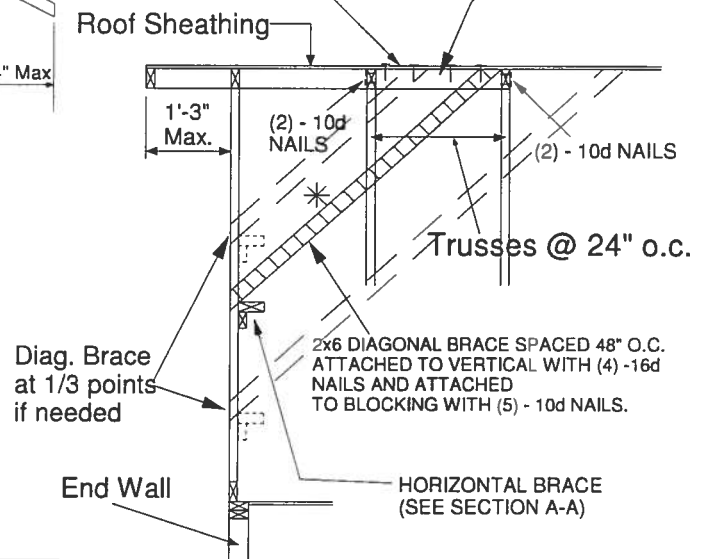


## NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD DF/SPF BLOCK

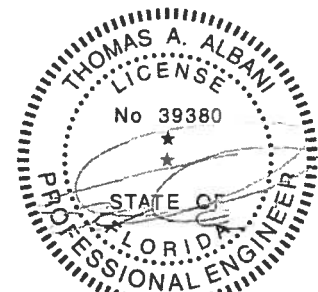


Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
2x4 DF/SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud	24" O.C.	2-8-9	2-9-8	3-11-7	5-5-2	8-1-12

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 l-braces attached to both edges. Fasten T and l braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

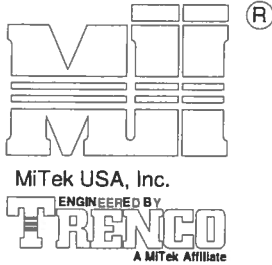
MAXIMUM WIND SPEED = 140 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



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6904 Parke East Blvd. Tampa FL 33610  
Date:

January 19, 2018



Typical 2x4 L-Brace Nailed To  
2x4 Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.

12  
Varies to Common Truss

SEE INDIVIDUAL MITTEK ENGINEERING  
DRAWINGS FOR DESIGN CRITERIA

3x4 =

24" Max

\* - Diagonal Bracing  
Refer to Section A-A

\*\* - L-Bracing Refer  
to Section B-B

NOTE:

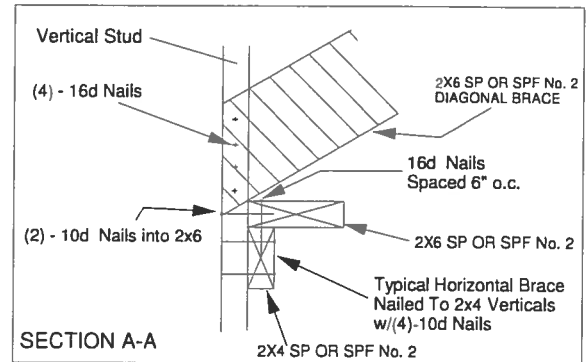
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
Maximum Stud Length					
2x4 SP No. 3 / Stud	12" O.C.	3-9-7	5-8-8	6-11-1	11-4-4
2x4 SP No. 3 / Stud	16" O.C.	3-4-12	4-11-15	6-9-8	10-2-3
2x4 SP No. 3 / Stud	24" O.C.	2-9-4	4-0-7	5-6-8	8-3-13
2x4 SP No. 2	12" O.C.	3-11-13	5-8-8	6-11-1	11-11-7
2x4 SP No. 2	16" O.C.	3-7-7	4-11-5	6-11-1	10-10-5
2x4 SP No. 2	24" O.C.	3-1-15	4-0-7	6-3-14	9-5-14

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length. T or I braces must be 2x4 SPF No. 2 or SP No. 2.

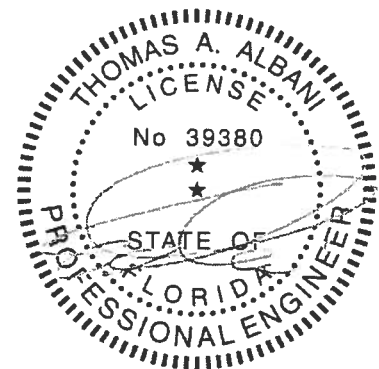
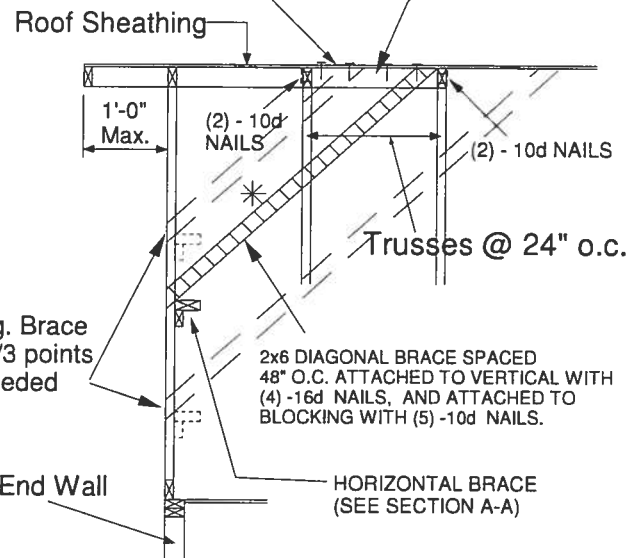
MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D  
ASCE 7-10 170 MPH  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK



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Date:

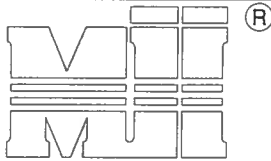
February 12, 2018

AUGUST 1, 2016

## Standard Gable End Detail

MII-GE180-D-SP

MiTek USA, Inc. Page 1 of 2



MiTek USA, Inc.

ENGINEERED BY  
**TRENCO**A MiTek Affiliate  
DIAGONAL BRACE  
4'-0" O.C. MAXTypical 2x4 L-Brace Nailed To  
2x4 Verticals w/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.

12

Varies to Common Truss

SEE INDIVIDUAL MITEK ENGINEERING  
DRAWINGS FOR DESIGN CRITERIA

3x4 =

24" Max

\* - Diagonal Bracing  
Refer to Section A-A\*\* - L-Bracing Refer  
to Section B-B

## NOTE:

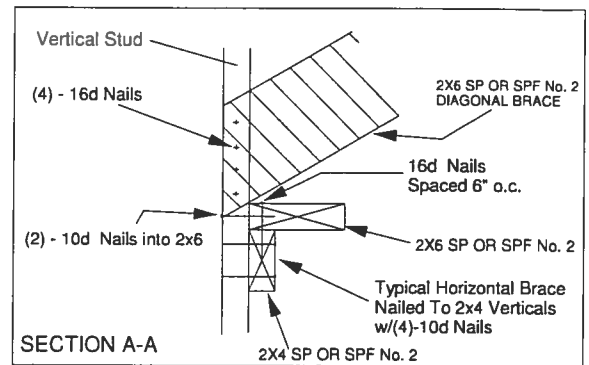
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
2x4 SP No. 3 / Stud	12" O.C.	3-7-12	5-4-11	6-2-1	10-11-3
2x4 SP No. 3 / Stud	16" O.C.	3-2-8	4-8-1	6-2-1	9-7-7
2x4 SP No. 3 / Stud	24" O.C.	2-7-7	3-9-12	5-2-13	7-10-4
2x4 SP No. 2	12" O.C.	3-10-0	5-4-11	6-2-1	11-6-1
2x4 SP No. 2	16" O.C.	3-5-13	4-8-1	6-2-1	10-5-7
2x4 SP No. 2	24" O.C.	3-0-8	3-9-12	6-1-1	9-1-9

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 L-braces attached to both edges. Fasten T and L braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T or L braces must be 2x4 SPF No. 2 or SP No. 2.

MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D  
ASCE 7-10 180 MPH  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.

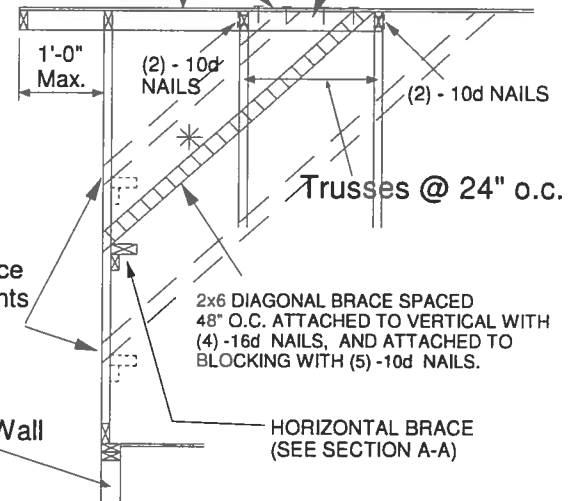


SECTION A-A

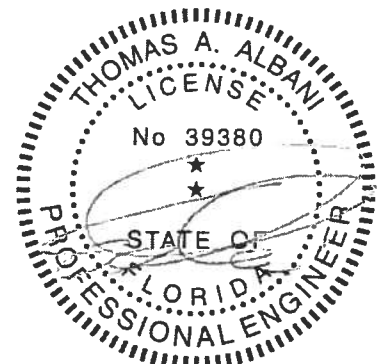
PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing



Diag. Brace at 1/3 points if needed



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Date:

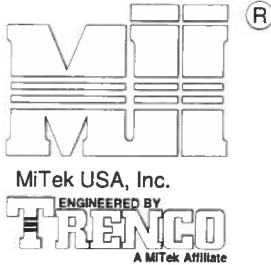
February 12, 2018

AUGUST 1, 2016

# STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-7-10

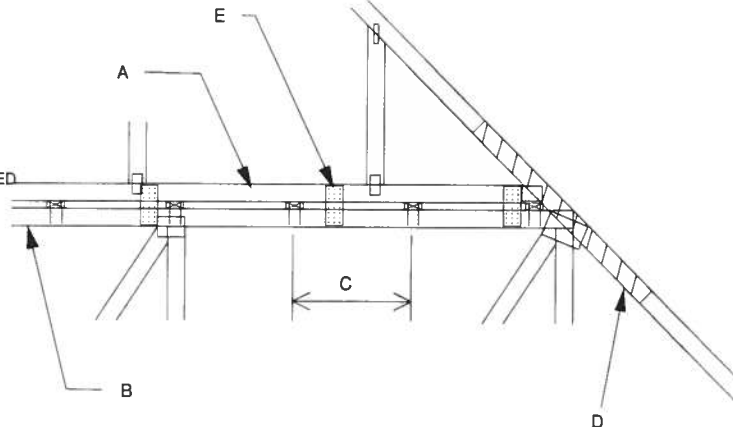
MiTek USA, Inc. Page 1 of 1



MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E  
MAX MEAN ROOF HEIGHT = 30 FEET  
MAX TRUSS SPACING = 24" O.C.  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-10  
DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES  
TRANSFERING DRAG LOADS (SHEAR TRUSSES).  
ADDITIONAL CONSIDERATIONS BY BUILDING  
ENGINEER/DESIGNER ARE REQUIRED.

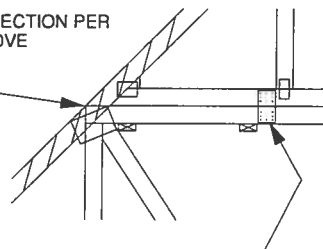
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X  $\frac{1}{2}$ " X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



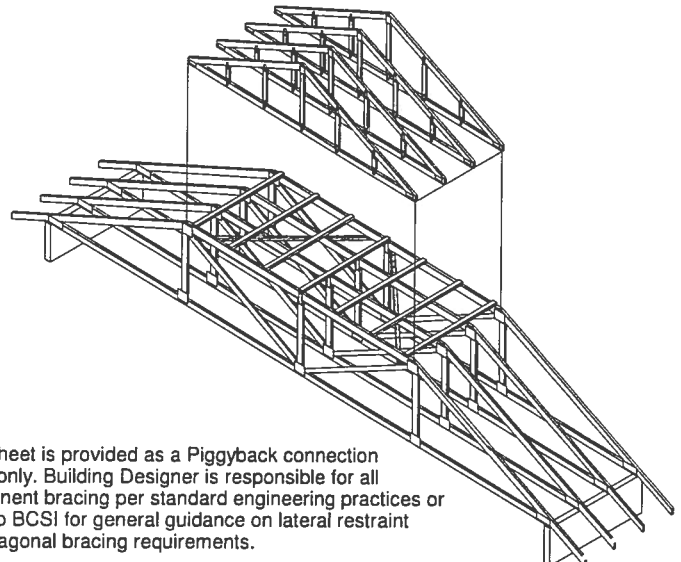
## WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER  
NOTE D ABOVE

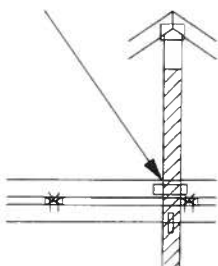


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



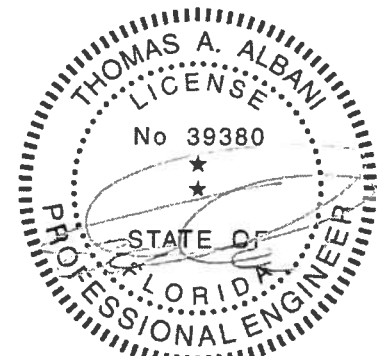
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO  
EXTEND THROUGH  
BOTTOM CHORD  
OF PIGGYBACK



## FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x  $\frac{1}{2}$ " x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



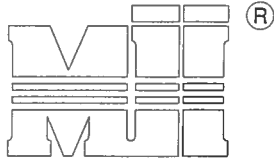
Thomas A. Albani PE No.39380  
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Date:

February 12, 2018

AUGUST 1, 2016

# STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT  
7-10



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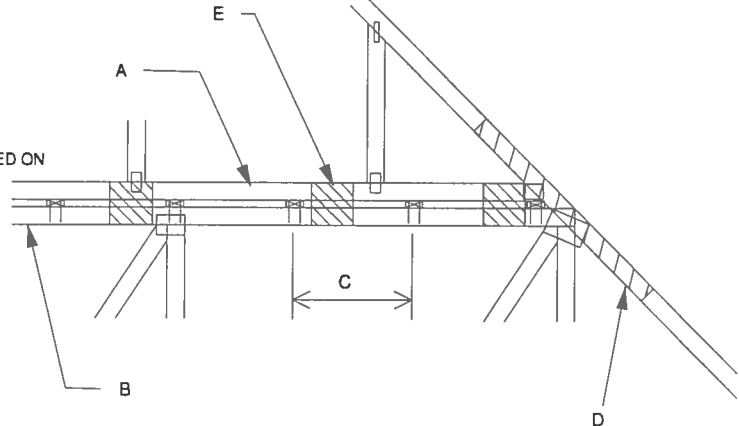


MiTek USA, Inc. Page 1 of 1

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E  
MAX MEAN ROOF HEIGHT = 30 FEET  
MAX TRUSS SPACING = 24" O.C.  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-10  
DURATION OF LOAD INCREASE : 1.60

DETAIL IS NOT APPLICABLE FOR TRUSSES  
TRANSFERING DRAG LOADS (SHEAR TRUSSES).  
ADDITIONAL CONSIDERATIONS BY BUILDING  
ENGINEER/DESIGNER ARE REQUIRED.

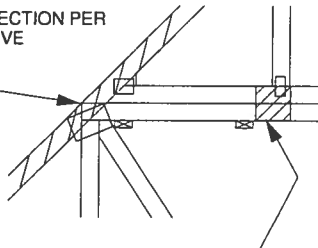
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
- D - 2 X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2. ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
  2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



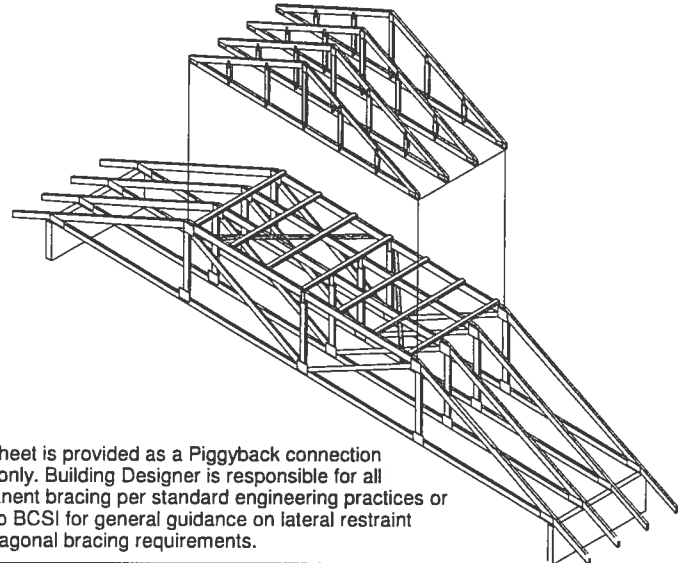
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER  
NOTE D ABOVE

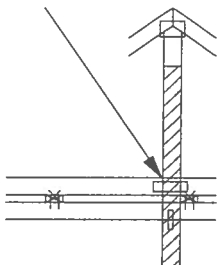


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



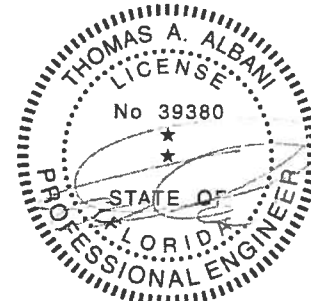
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO  
EXTEND THROUGH  
BOTTOM CHORD  
OF PIGGYBACK



FOR LARGE CONCENTRATED LOADS APPLIED  
TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



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Date:

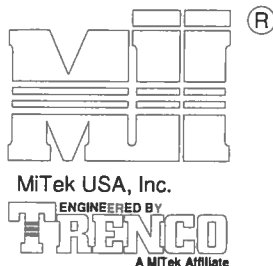
January 19, 2018

AUGUST 1, 2016

STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS  
AND DAMAGED OR MISSING CHORD SPLICE PLATES

MII-REP01A1

MiTek USA, Inc. Page 1 of 1

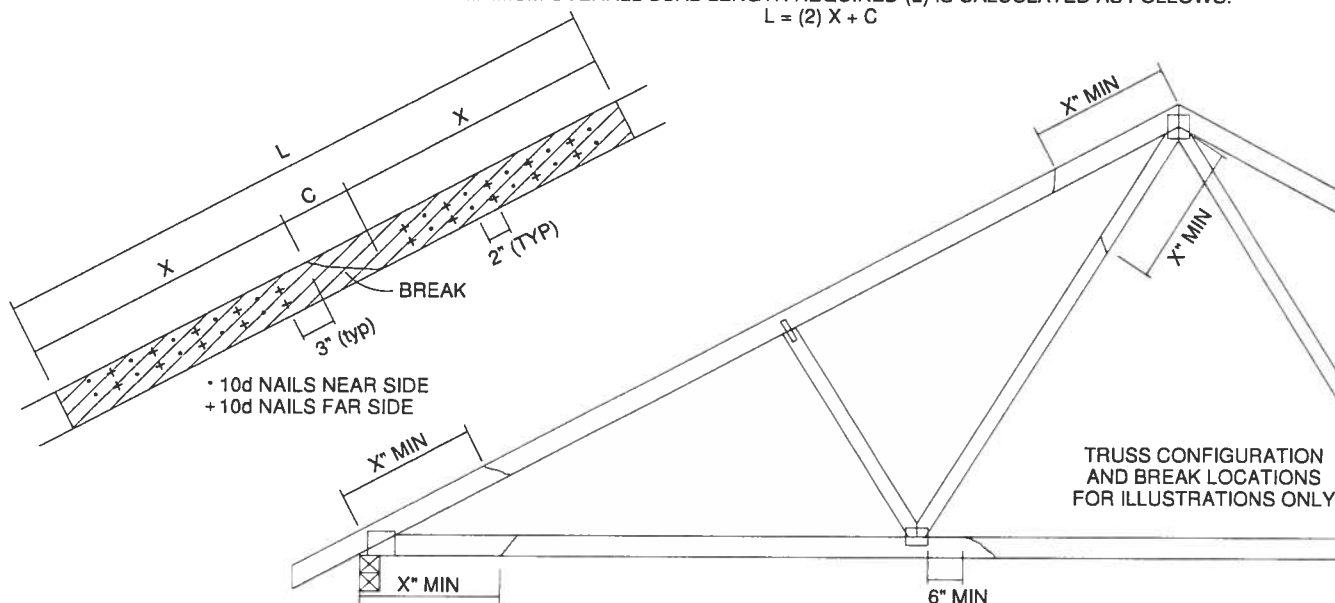


TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	3187
38	57	42"	3169	4754	2900	4350	2451	3677	2511	3767
44	66	48"	3657	5485	3346	5019	2829	4243	2898	4347

\* DIVIDE EQUALLY FRONT AND BACK

ATTACH 2x SCAB OF THE SAME SIZE AND GRADE AS THE BROKEN MEMBER TO EACH FACE OF THE TRUSS (CENTER ON BREAK OR SPLICE) WITH 10d (0.131" X 3") NAILS (TWO ROWS FOR 2x4, THREE ROWS FOR 2x6) SPACED 4" O.C. AS SHOWN. STAGGER NAIL SPACING FROM FRONT FACE AND BACK FACE FOR A NET 0-2-0 O.C. SPACING IN THE MAIN MEMBER. USE A MIN. 0-3-0 MEMBER END DISTANCE.

THE LENGTH OF THE BREAK (C) SHALL NOT EXCEED 12". (C=PLATE LENGTH FOR SPLICE REPAIRS)  
THE MINIMUM OVERALL SCAB LENGTH REQUIRED (L) IS CALCULATED AS FOLLOWS:  
 $L = (2) X + C$

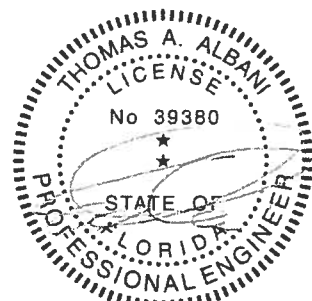


THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

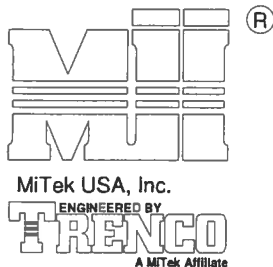
## NOTES:

1. THIS REPAIR DETAIL IS TO BE USED ONLY FOR THE APPLICATION SHOWN. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
3. THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
4. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.
5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x ORIENTATION ONLY.
6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.



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Date:

January 19, 2018



## NOTES:

1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.)
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

THIS DETAIL APPLICABLE TO THE  
THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR  
ILLUSTRATION PURPOSES ONLY

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail)						
	DIAM.	SP	DF	HF	SPF	SPF-S
3.5" LONG	.131	88.0	80.6	69.9	68.4	59.7
	.135	93.5	85.6	74.2	72.6	63.4
	.162	108.8	99.6	86.4	84.5	73.8
3.25" LONG	.128	74.2	67.9	58.9	57.6	50.3
	.131	75.9	69.5	60.3	59.0	51.1
	.148	81.4	74.5	64.6	63.2	52.5

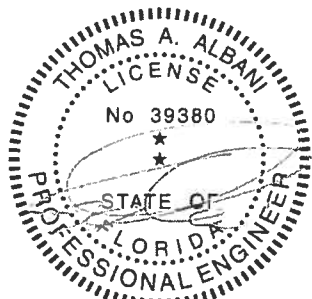
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.  
APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

## EXAMPLE:

(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

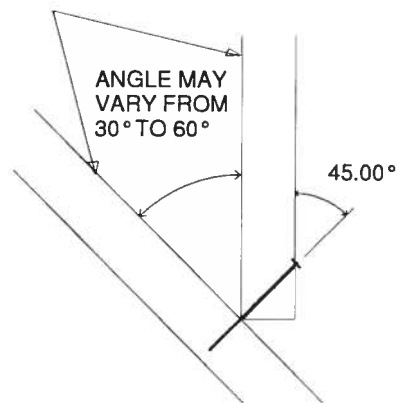
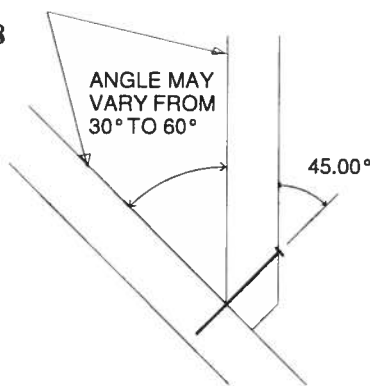
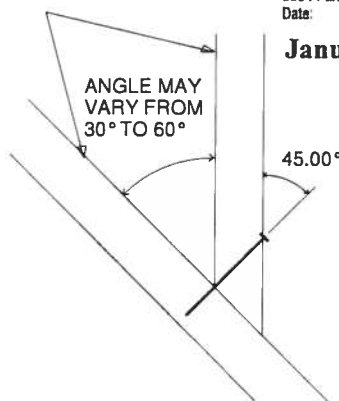
For load duration increase of 1.15:

3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

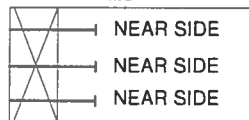


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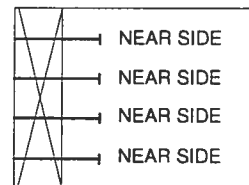
January 19, 2018



SIDE VIEW  
(2x4)  
3 NAILS



SIDE VIEW  
(2x6)  
4 NAILS





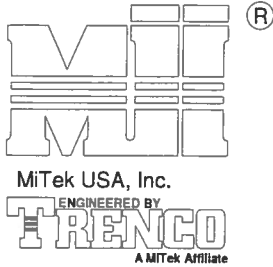
AUGUST 1, 2016

# TRUSSED VALLEY SET DETAIL

MII-VALLEY HIGH WIND1

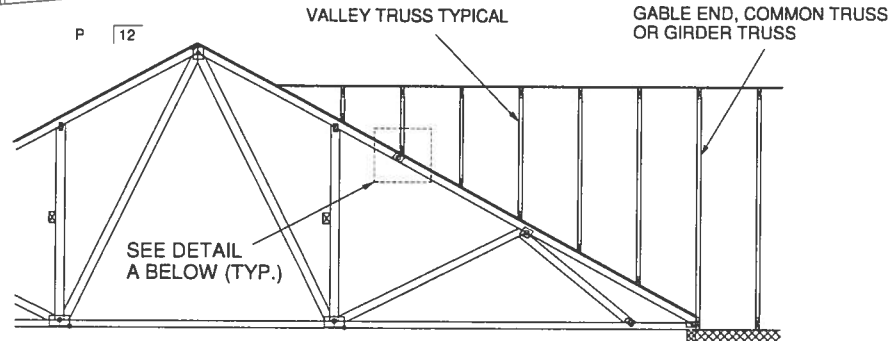
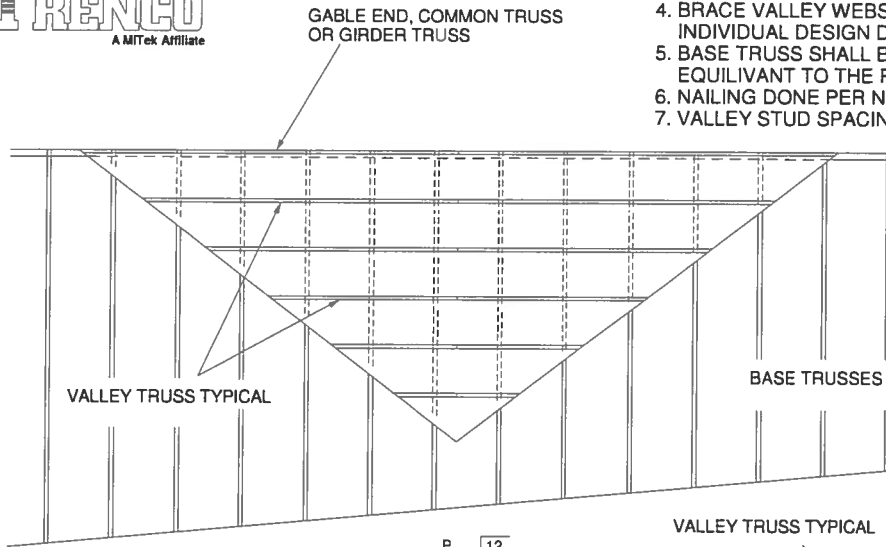
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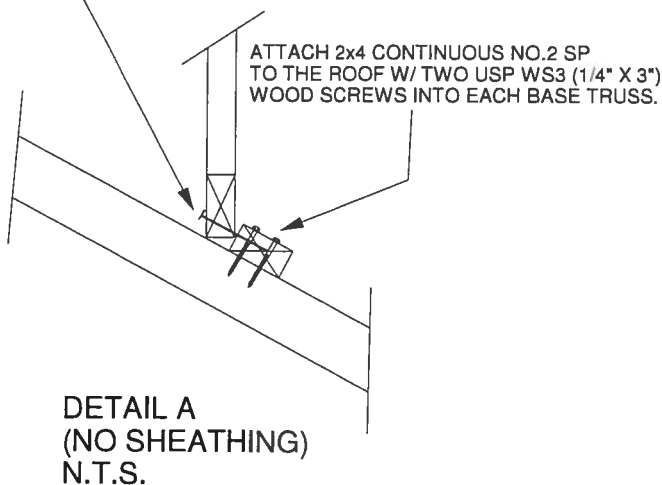


## GENERAL SPECIFICATIONS

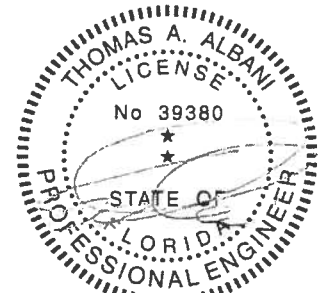
1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT  
DO NOT USE DRYWALL OR DECKING TYPE SCREW
3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVALENT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
6. NAILING DONE PER NDS - 01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.

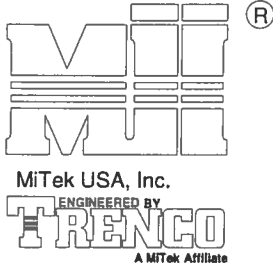


WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 6 PSF  
ON THE TRUSSES



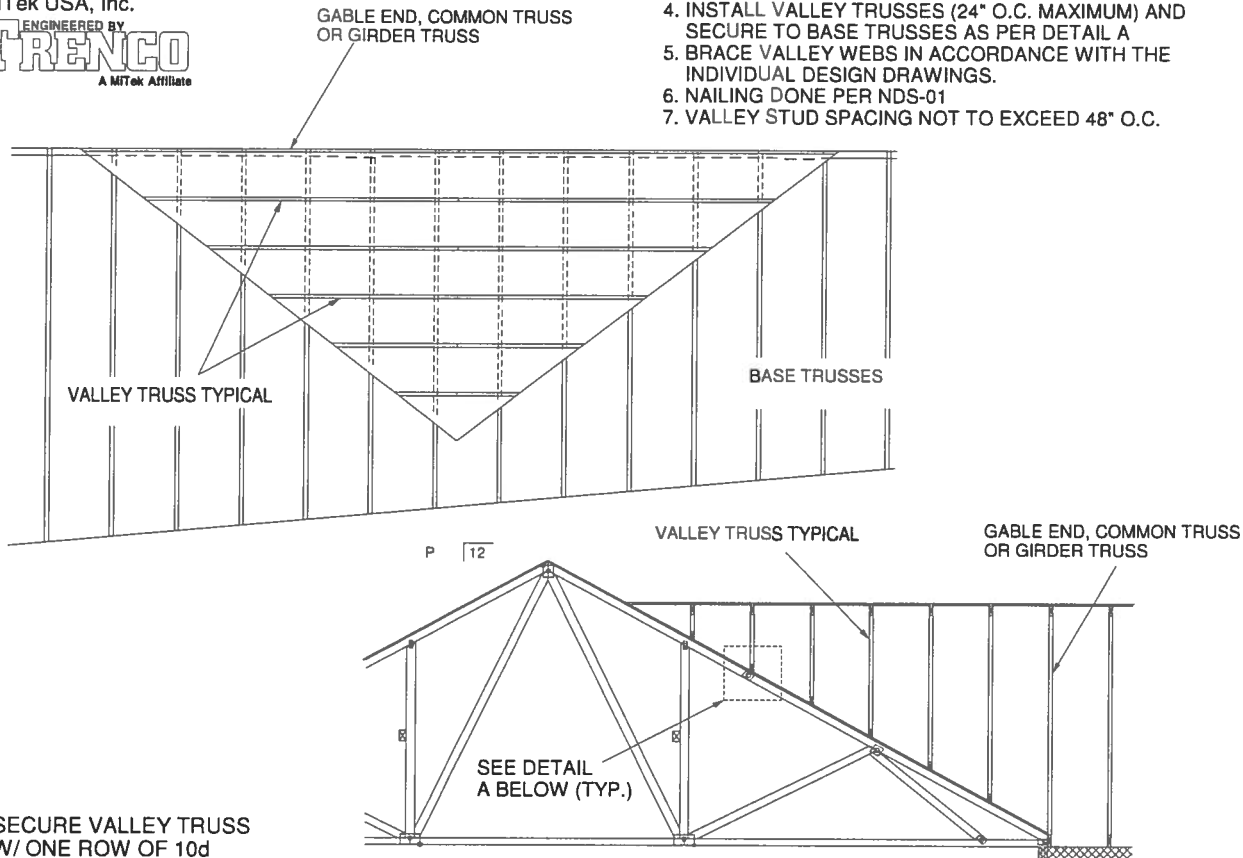
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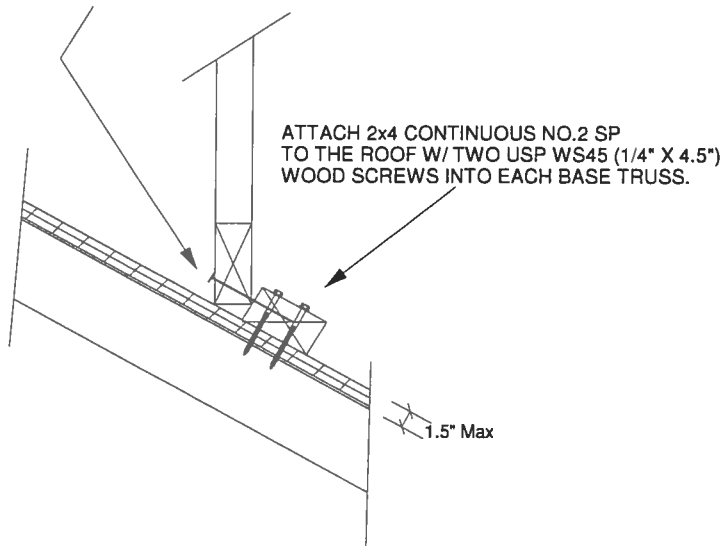


## GENERAL SPECIFICATIONS

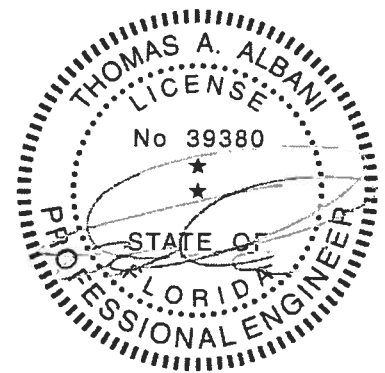
1. NAIL SIZE 10d (0.131" X 3")
2. WOOD SCREW = 4.5" WS45 USP OR EQUIVANT
3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
4. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE TO BASE TRUSSES AS PER DETAIL A
5. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
6. NAILING DONE PER NDS-01
7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



SECURE VALLEY TRUSS  
W/ ONE ROW OF 10d  
NAILS 6" O.C.



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 6 PSF  
ON THE TRUSSES



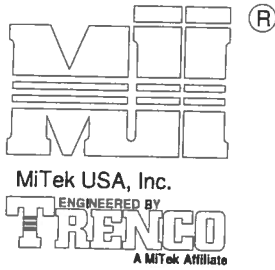
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Date:

February 12, 2018

AUGUST 1, 2016

# TRUSSED VALLEY SET DETAIL

MII-VALLEY SP

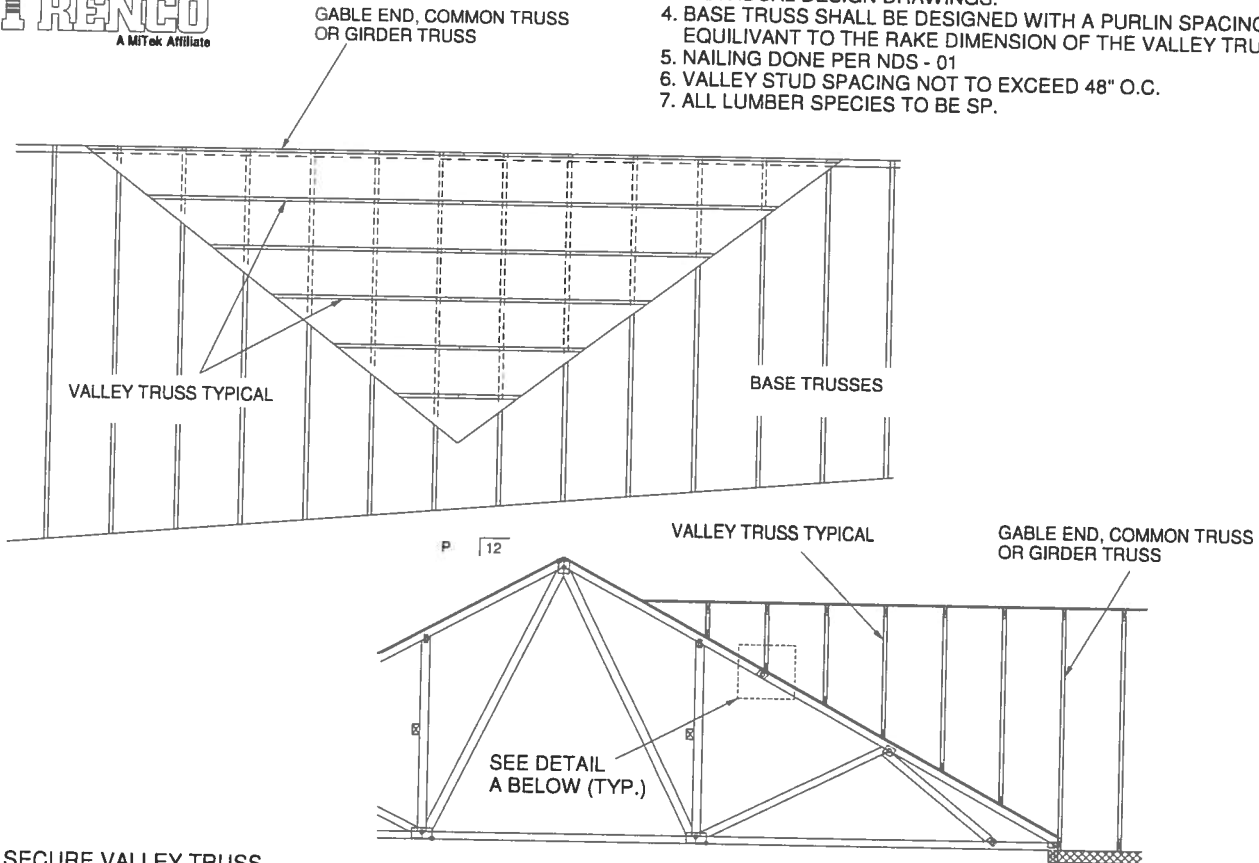


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## GENERAL SPECIFICATIONS

1. NAIL SIZE 16d (0.131" X 3.5")
2. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
3. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
4. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING EQUIVARIANT TO THE RAKE DIMENSION OF THE VALLEY TRUSS SPACING.
5. NAILING DONE PER NDS - 01
6. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.
7. ALL LUMBER SPECIES TO BE SP.

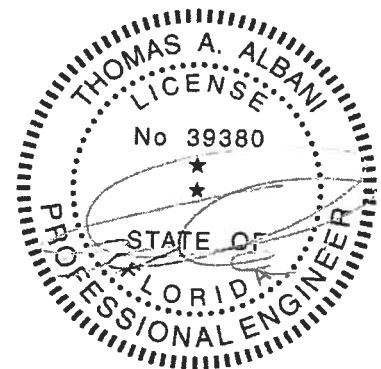


SECURE VALLEY TRUSS  
W/ ONE ROW OF 16d  
NAILS 6" O.C.

ATTACH 2x4 CONTINUOUS NO.2 SP  
TO THE ROOF W/ TWO 16d NAILS  
INTO EACH BASE TRUSS.

DETAIL A  
(MAXIMUM 1" SHEATHING)  
N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH  
WIND DESIGN PER ASCE 7-10 150 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12  
CATEGORY II BUILDING  
EXPOSURE C OR B  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 60 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)  
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF  
ON THE TRUSSES



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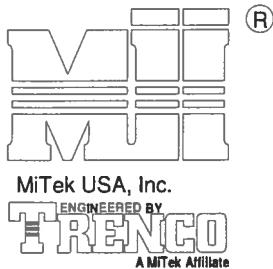
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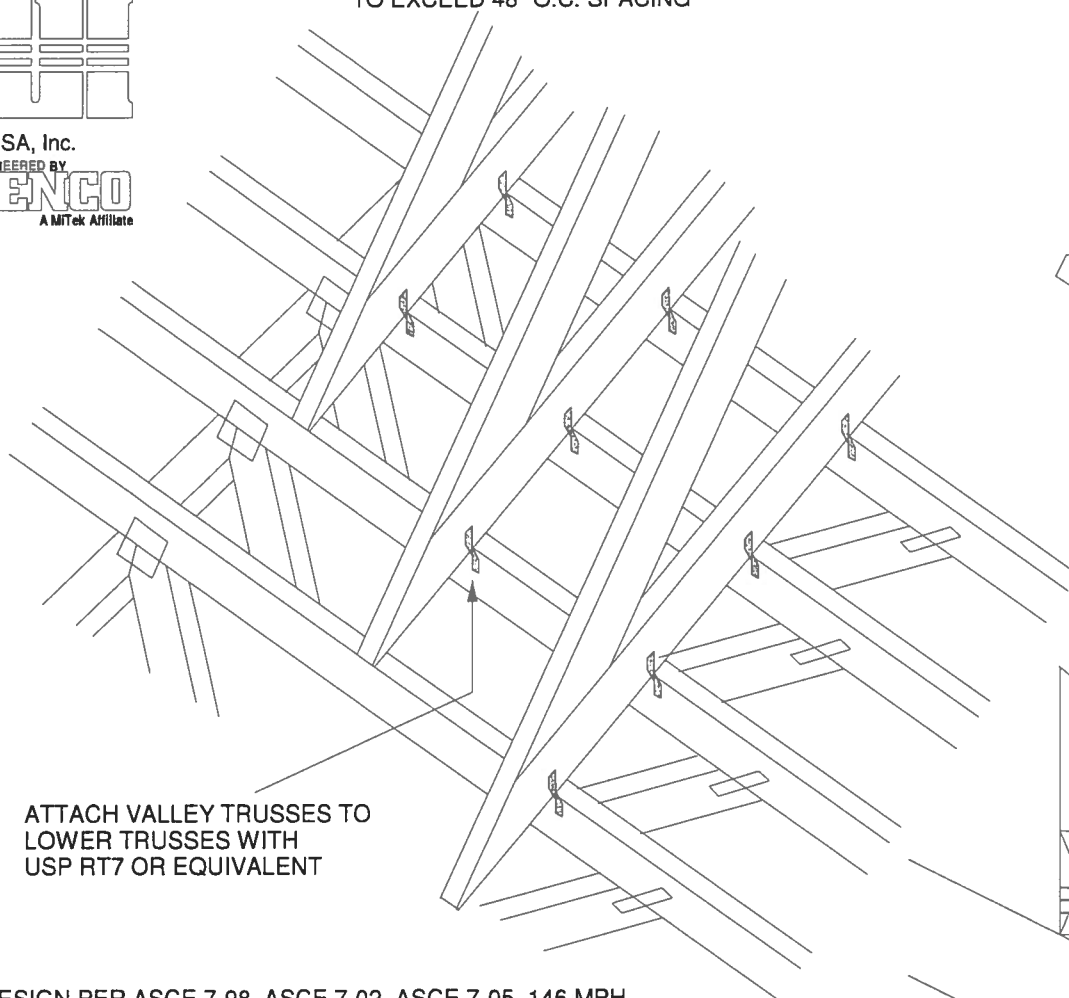
TRUSSED VALLEY SET DETAIL  
(HIGH WIND VELOCITY)

MII-VALLEY

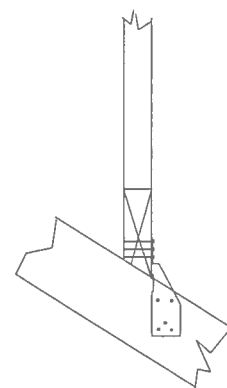
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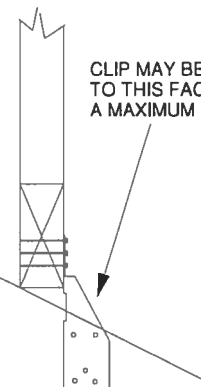
NOTE: VALLEY STUD SPACING NOT  
TO EXCEED 48" O.C. SPACING



ATTACH VALLEY TRUSSES TO  
LOWER TRUSSES WITH  
USP RT7 OR EQUIVALENT



FOR BEVELED BOTTOM  
CHORD, CLIP MAY BE  
APPLIED TO EITHER FACE



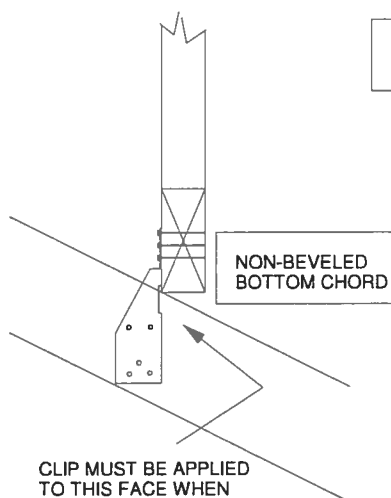
CLIP MAY BE APPLIED  
TO THIS FACE UP TO  
A MAXIMUM 6/12 PITCH

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
WIND DURATION OF LOAD INCREASE : 1.6  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C. (BASE AND VALLEY)

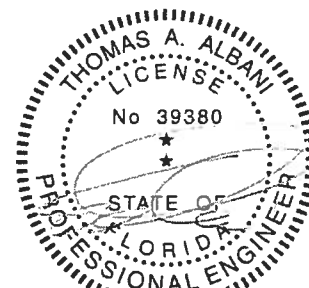
SUPPORTING TRUSSES DIRECTLY UNDER  
VALLEY TRUSSES MUST BE DESIGNED  
WITH A MAXIMUM UNBRACED LENGTH OF  
2'-10" ON AFFECTED TOP CHORDS.

NOTES:

- SHEATHING APPLIED AFTER  
INSTALLATION OF VALLEY TRUSSES
- THIS DETAIL IS NOT APPLICABLE FOR  
SPF-S SPECIES LUMBER.

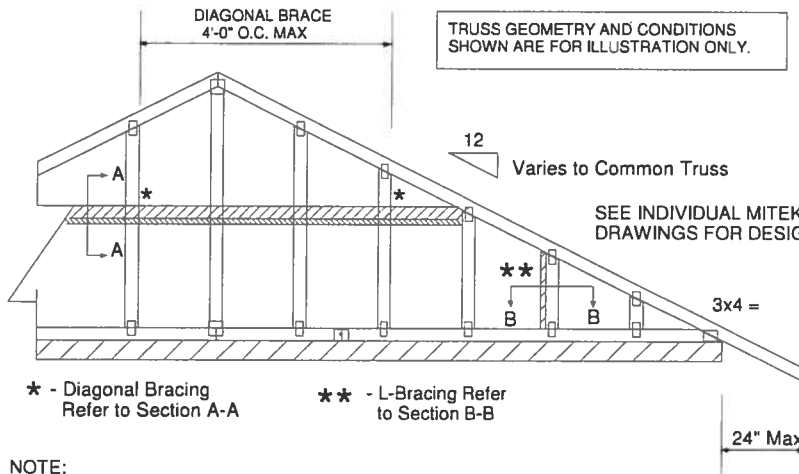
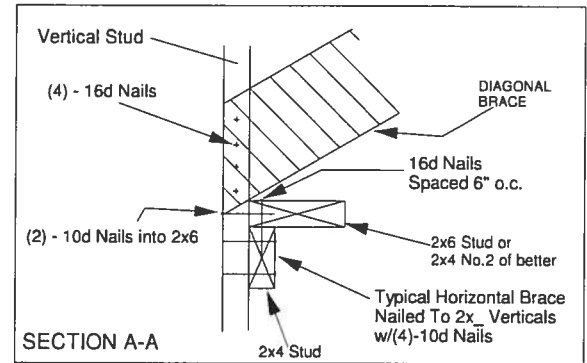
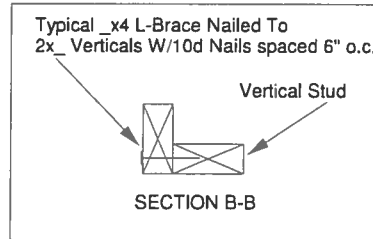
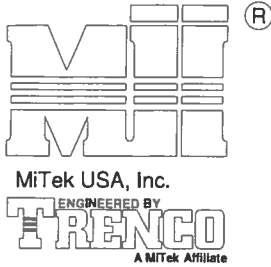


CLIP MUST BE APPLIED  
TO THIS FACE WHEN  
PITCH EXCEEDS 6/12.  
(MAXIMUM 12/12 PITCH)



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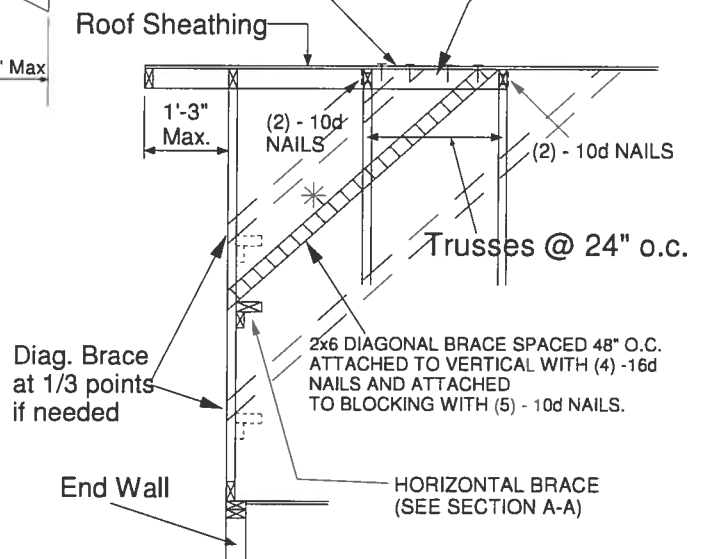


## NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
10. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS.

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SP BLOCK

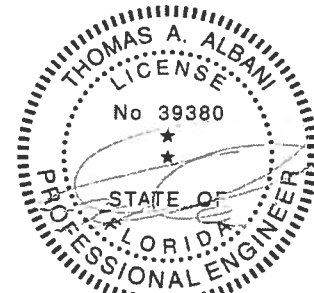


Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

- \* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

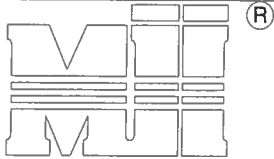
MAXIMUM WIND SPEED = 146 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE : 1.60

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



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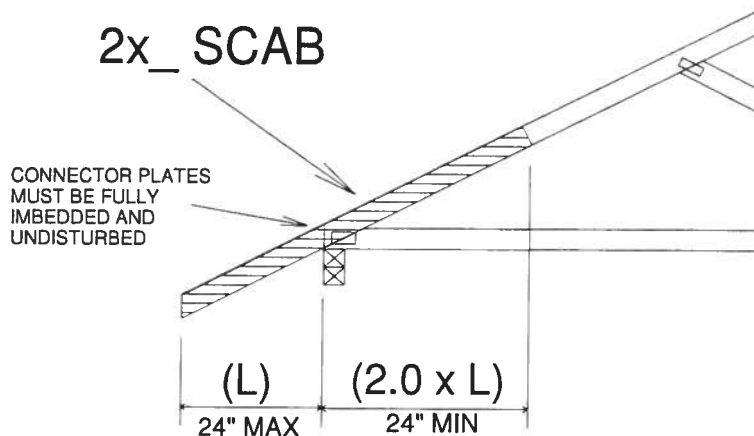


## TRUSS CRITERIA:

LOADING: 40-10-0-10  
 DURATION FACTOR: 1.15  
 SPACING: 24" O.C.  
 TOP CHORD: 2x4 OR 2x6  
 PITCH: 4/12 - 12/12  
 HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL  
 END BEARING CONDITION

## NOTES:

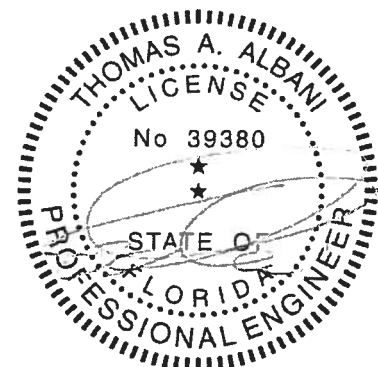
1. ATTACH 2x SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED TO AVOID LOOSENING OF THE CONNECTOR PLATES AT THE JOINTS OR SPLICES.



## IMPORTANT

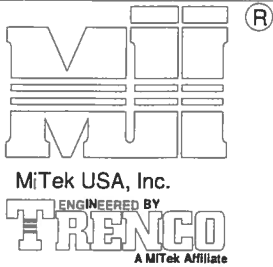
This detail to be used only with trusses (spans less than 40') spaced 24" o.c. maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf. Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN  
 FOR PLATE SIZES AND LUMBER GRADES



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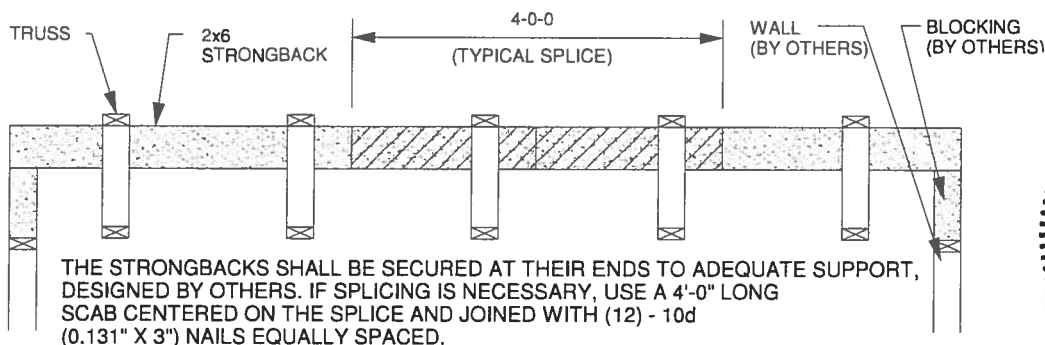
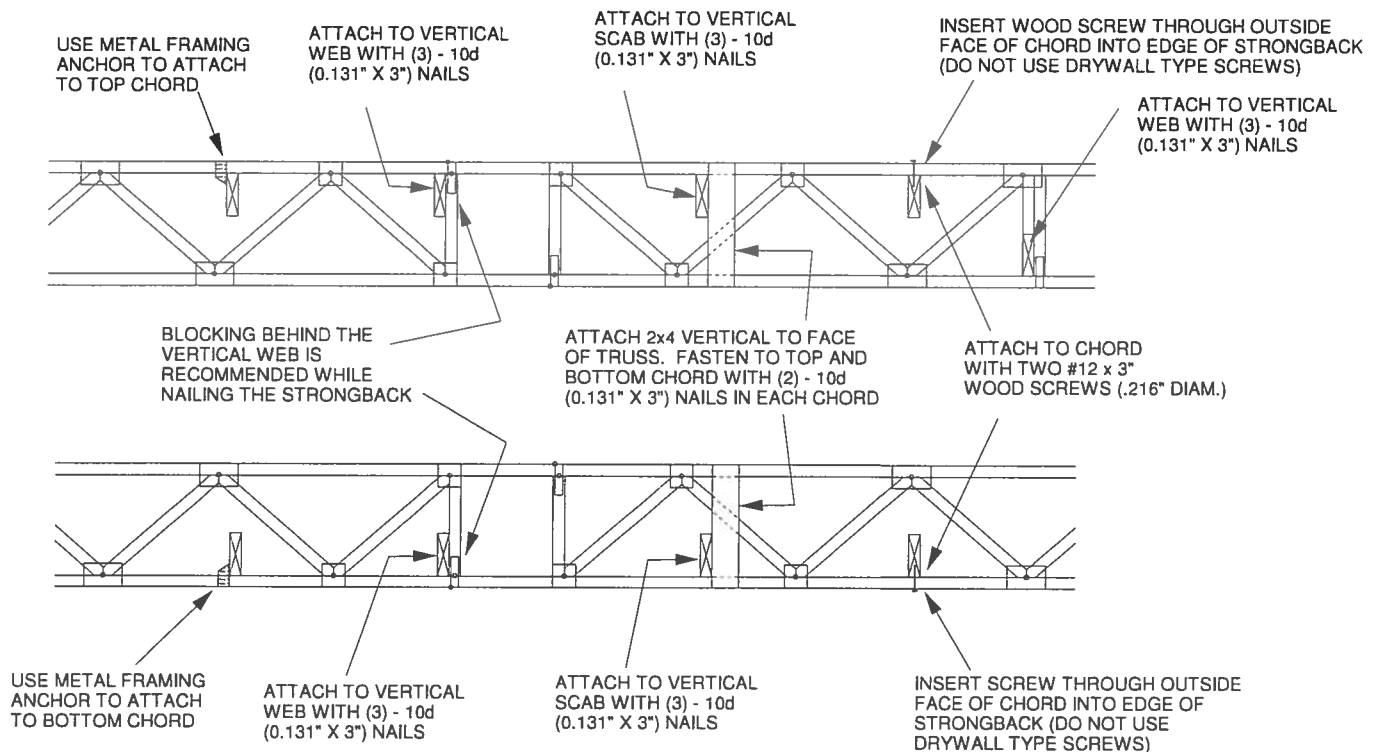
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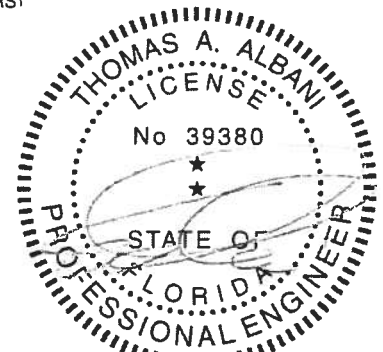
TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

NOTE 1: 2X6 STRONGBACK ORIENTED VERTICALLY MAY BE POSITIONED DIRECTLY UNDER THE TOP CHORD OR DIRECTLY ABOVE THE BOTTOM CHORD. SECURELY FASTENED TO THE TRUSS USING ANY OF THE METHODS ILLUSTRATED BELOW.

NOTE 2: STRONGBACK BRACING ALSO SATISFIES THE LATERAL BRACING REQUIREMENTS FOR THE BOTTOM CHORD OF THE TRUSS WHEN IT IS PLACED ON TOP OF THE BOTTOM CHORD, IS CONTINUOUS FROM END TO END, CONNECTED WITH A METHOD OTHER THAN METAL FRAMING ANCHOR, AND PROPERLY CONNECTED, BY OTHERS, AT THE ENDS.



ALTERNATE METHOD OF SPLICING:  
OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED.  
(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)



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