



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

RE: 2380547 - GIEBEIG HOMES - LOT 31 CCP

**MiTek USA, Inc.**

6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: Giebeig Const. Project Name: Spec Hse Model: Custom  
Lot/Block: 31 Subdivision: Cannon Creek Place  
Address: TBD, TBD  
City: Columbia Cty State: FL

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

Name: License #:  
Address: State:  
City:

**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 27 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	T20519002	CJ01	6/22/20	23	T20519024	T14	6/22/20
2	T20519003	CJ03	6/22/20	24	T20519025	T15	6/22/20
3	T20519004	CJ05	6/22/20	25	T20519026	T16	6/22/20
4	T20519005	EJ01	6/22/20	26	T20519027	T17	6/22/20
5	T20519006	EJ02	6/22/20	27	T20519028	T18	6/22/20
6	T20519007	EJ02A	6/22/20				
7	T20519008	EJ03	6/22/20				
8	T20519009	HJ06	6/22/20				
9	T20519010	HJ10	6/22/20				
10	T20519011	T01	6/22/20				
11	T20519012	T02	6/22/20				
12	T20519013	T03	6/22/20				
13	T20519014	T04	6/22/20				
14	T20519015	T05	6/22/20				
15	T20519016	T06	6/22/20				
16	T20519017	T07	6/22/20				
17	T20519018	T08	6/22/20				
18	T20519019	T09	6/22/20				
19	T20519020	T10	6/22/20				
20	T20519021	T11	6/22/20				
21	T20519022	T12	6/22/20				
22	T20519023	T13	6/22/20				



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

Truss Design Engineer's Name: Velez, Joaquin

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



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

June 22, 2020

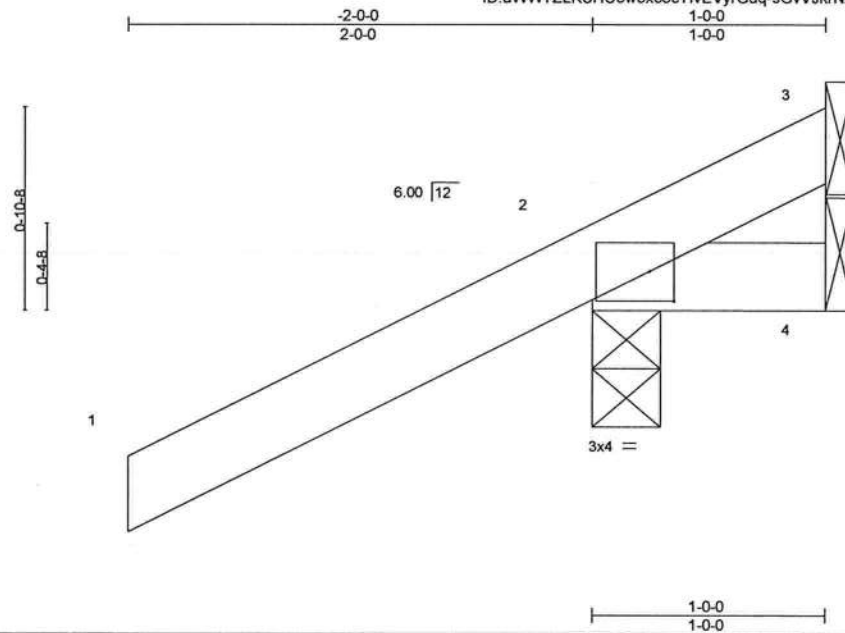


Job 2380547	Truss CJ01	Truss Type Jack-Open	Qty 12	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519002
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:26 2020 Page 1

ID:aWWYZLKSHCowoxc8cTivEVrGuq-sGvVJkrNXCKoDI\_olJfZfRnQwxc2ZxK18L1aYZz3pX?



Scale = 1:9.5

Plate Offsets (X,Y)- [2:0-1-4,0-1-9]

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)	0.00	7	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.07	Vert(CT)	0.00	7	>999	180	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a	n/a	
BCDL 10.0	Code FBC2017/TP12014		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.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=66(LC 12)  
Max Uplift 3=-27(LC 1), 2=-162(LC 12), 4=-46(LC 1)  
Max Grav 3=25(LC 16), 2=254(LC 1), 4=44(LC 16)

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

#### NOTES-

- 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;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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=162.



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Date:

June 22,2020

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK 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/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

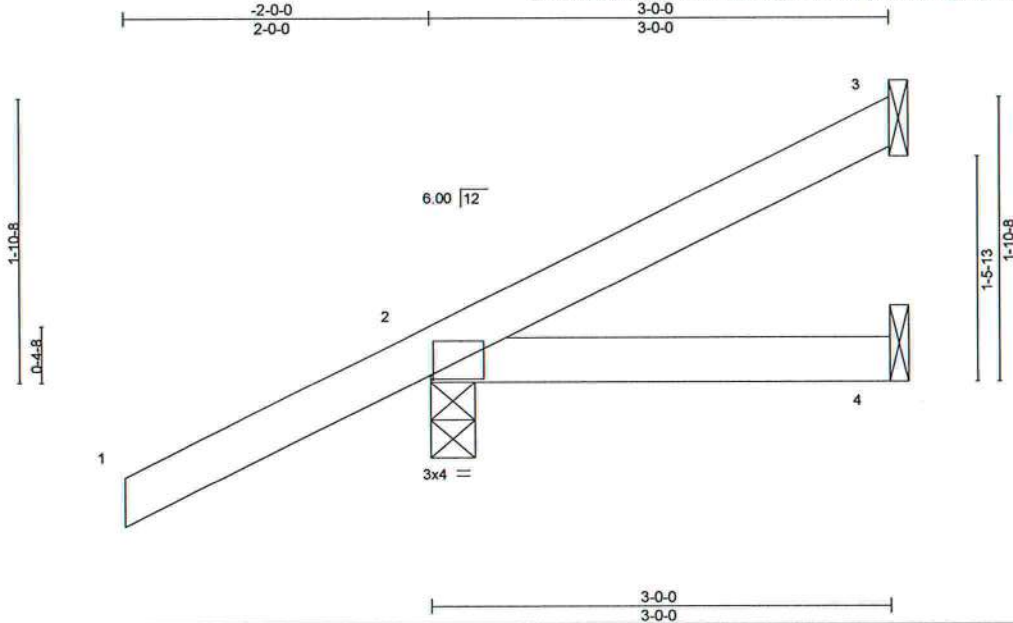
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Tampa, FL 33610

Job 2380547	Truss CJ03	Truss Type Jack-Open	Qty 12	Ply 1	GIEBEIG HOMES - LOT 31 CCP T20519003
Builders FirstSource, Jacksonville, FL - 32244,					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244,

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Scale = 1:14.6

Plate Offsets (X,Y)~ [2'-0-0-3,0-0-5]

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 0.32	Vert(LL)	-0.00	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'-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

#### REACTIONS.

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=113(LC 12)  
Max Uplift 3=48(LC 12), 2=126(LC 12)  
Max Grav 3=52(LC 1), 2=253(LC 1), 4=48(LC 3)

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

#### NOTES-

- 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; 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=126.



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Date:

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**MiTek**

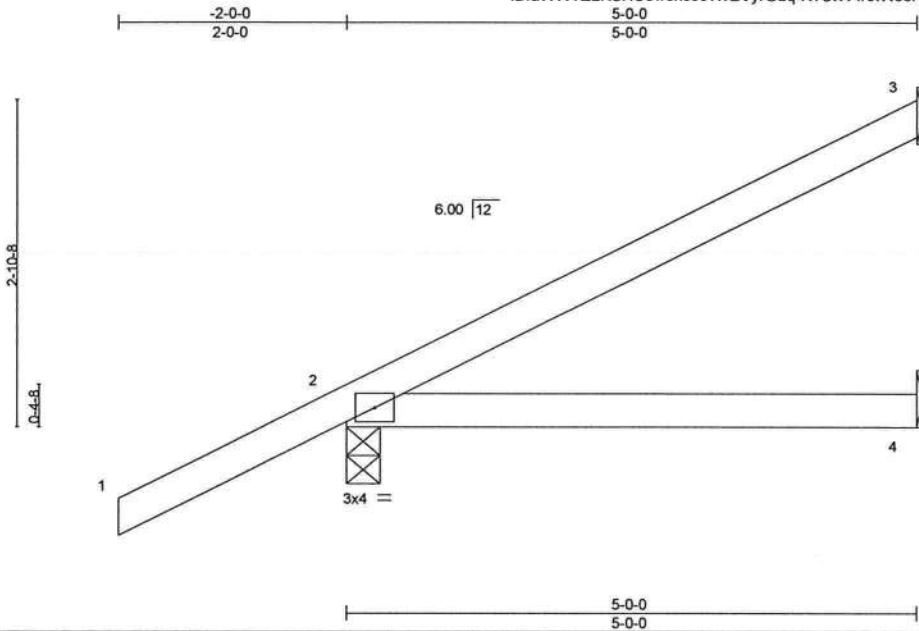
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Tampa, FL 33610



Job 2380547	Truss CJ05	Truss Type Jack-Open	Qty 8	Ply 1	GIEBEIG HOMES - LOT 31 CCP T20519004
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8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:27 2020 Page 1  
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Scale = 1:19.5

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 0.32	Vert(LL) 0.03	4-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.23	Vert(CT) -0.05	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: 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.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=162(LC 12)  
Max Uplift 3=-98(LC 12), 2=-137(LC 12), 4=-1(LC 12)  
Max Grav 3=108(LC 1), 2=313(LC 1), 4=87(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-10; 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
- 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=137.



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Date:

June 22,2020

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 2380547	Truss EJ01	Truss Type Jack-Partial	Qty 21	Ply 1	GIEBEIG HOMES - LOT 31 CCP T20519005
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:28 2020 Page 1  
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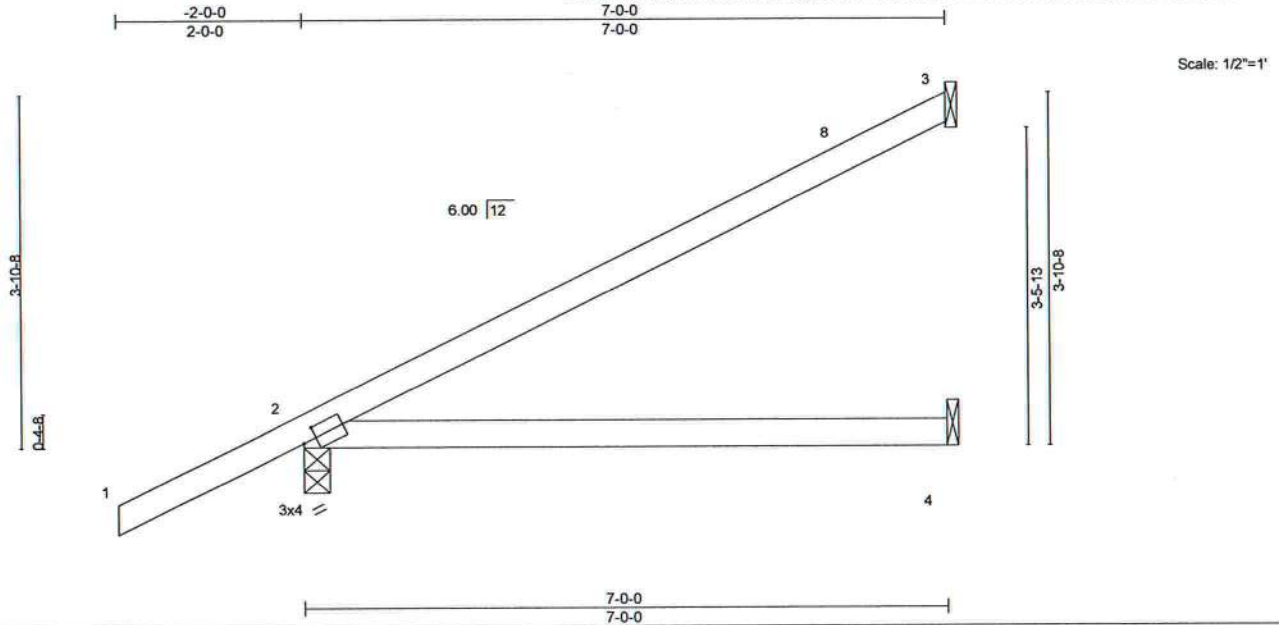


Plate Offsets (X,Y) -		[2-0-1-13, 0-1-8]									
LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL	1.25	TC 0.67		Vert(LL)	0.12 4-7	>666	240	MT20	244/190
TCDL 7.0		Lumber DOL	1.25	BC 0.51		Vert(CT)	-0.21 4-7	>393	180		
BCLL 0.0 *		Rep Stress Incr	YES	WB 0.00		Horz(CT)	0.01 3	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.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=204(LC 12)  
Max Uplift 3=130(LC 12), 2=156(LC 12), 4=5(LC 12)  
Max Grav 3=160(LC 1), 2=380(LC 1), 4=125(LC 3)

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

#### NOTES-

- 1) Wind: ASCE 7-10; 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
- 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=130, 2=156.



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6904 Parke East Blvd. Tampa FL 33610  
Date:

June 22,2020

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**MiTek**

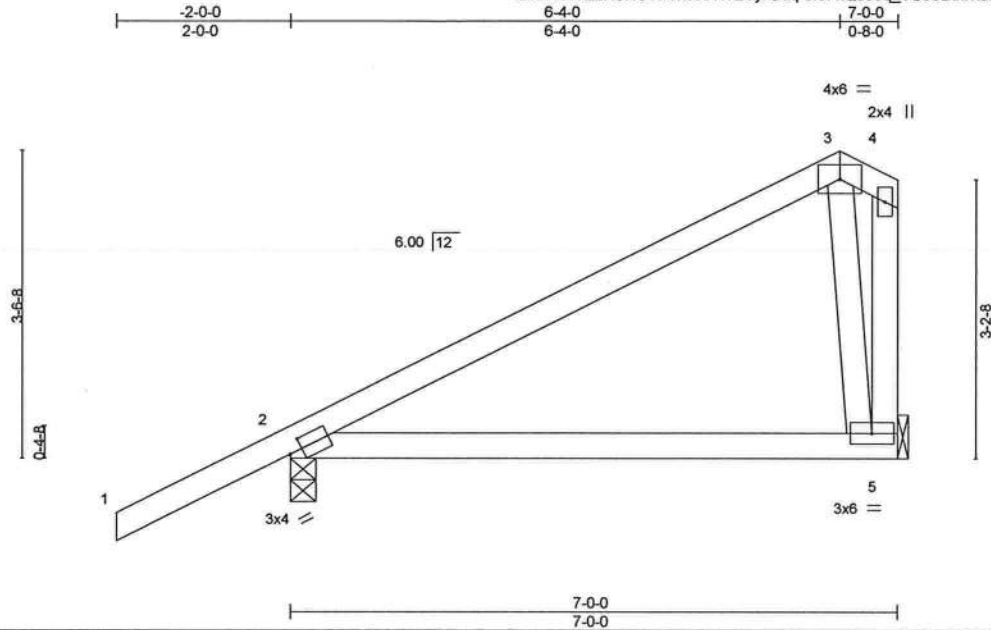
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2380547	Truss EJ02	Truss Type Common	Qty 2	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519006
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8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:28 2020 Page 1

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Scale = 1:25.5

Plate Offsets (X,Y) - [2-0-1-13,0-1-8]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.38	Vert(LL)	-0.07	5-8	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.38	Vert(CT)	-0.14	5-8	>577	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS							
									Weight: 34 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, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 5=Mechanical  
Max Horz 2=189(LC 12)  
Max Uplift 2=162(LC 12), 5=128(LC 12)  
Max Grav 2=377(LC 1), 5=238(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-5=304/407

#### 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) 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=162, 5=128.



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

June 22,2020

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**MiTek**

6904 Parke East Blvd.  
Tampa, FL 36610



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 31 CCP	T20519007
2380547	EJ02A	Common	1	1		

Builders FirstSource, Jacksonville, FL - 32244,

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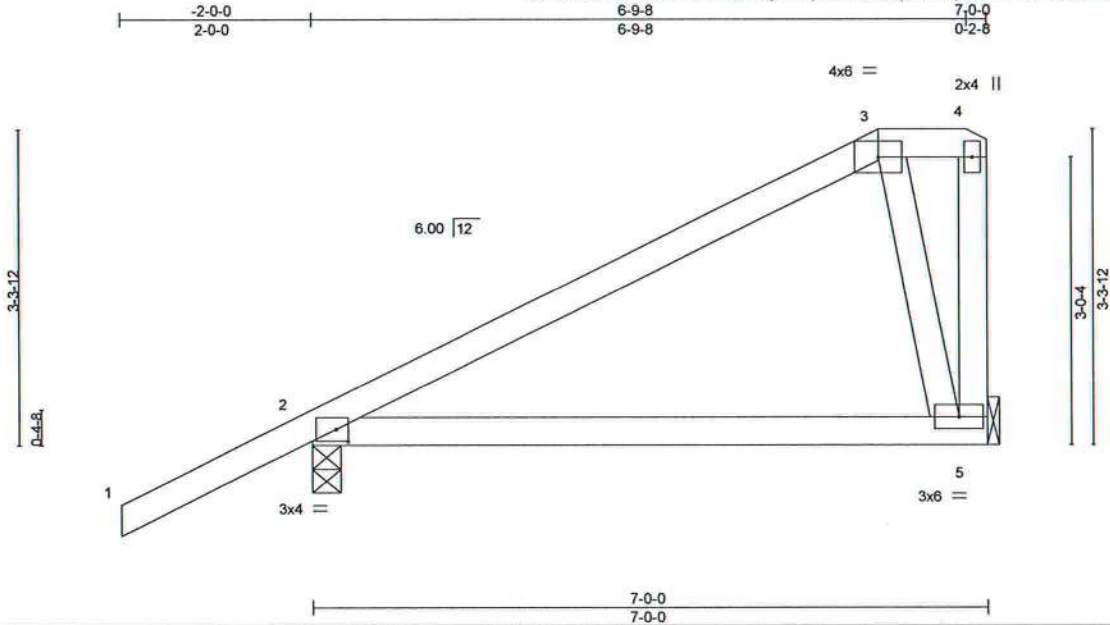


Plate Offsets (X,Y)=[2'-0-1-8,0-1-9]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	2'-0-0	TC 0.33	Vert(LL)	-0.06	5-8	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.38	Vert(CT)	-0.14	5-8	>598	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.00	2	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						Weight: 34 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, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10'-0-0 oc bracing.

#### REACTIONS.

(size) 2=0-3-8, 5=Mechanical  
Max Horz 2=185(LC 12)  
Max Uplift 2=162(LC 12), 5=118(LC 12)  
Max Grav 2=377(LC 1), 5=238(LC 1)

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

WEBS 3-5=-231/307

#### NOTES-

- 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) 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=162, 5=118.



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

June 22,2020

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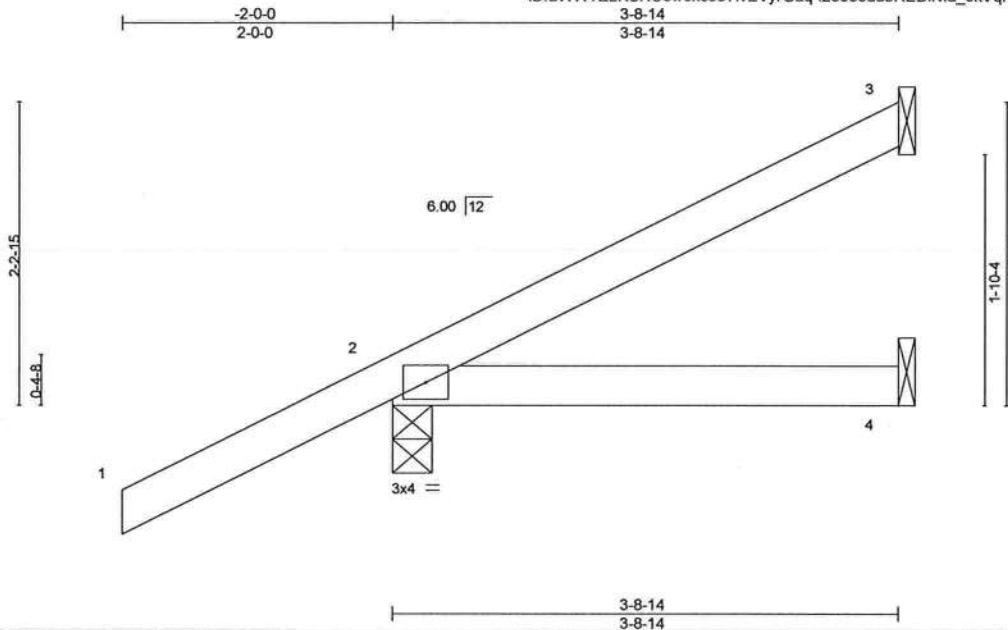
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Tampa, FL 33610



Job 2380547	Truss EJ03	Truss Type Jack-Open	Qty 4	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519008
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:30 2020 Page 1  
ID: aWWYZLKSHCowoxc8cTivEVyrGuq-l28086uubREDiNla\_9kVqHx6vZzOVkKd3z?ngLz3pWx



Scale = 1:16.4

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 0.32	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.11	Vert(CT)	-0.02	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: 15 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 3-8-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-3-8, 4=Mechanical  
Max Horz 2=131(LC 12)  
Max Uplift 3=67(LC 12), 2=129(LC 12)  
Max Grav 3=74(LC 1), 2=273(LC 1), 4=62(LC 3)

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

#### NOTES-

- 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; 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3 except (jt=lb) 2=129.



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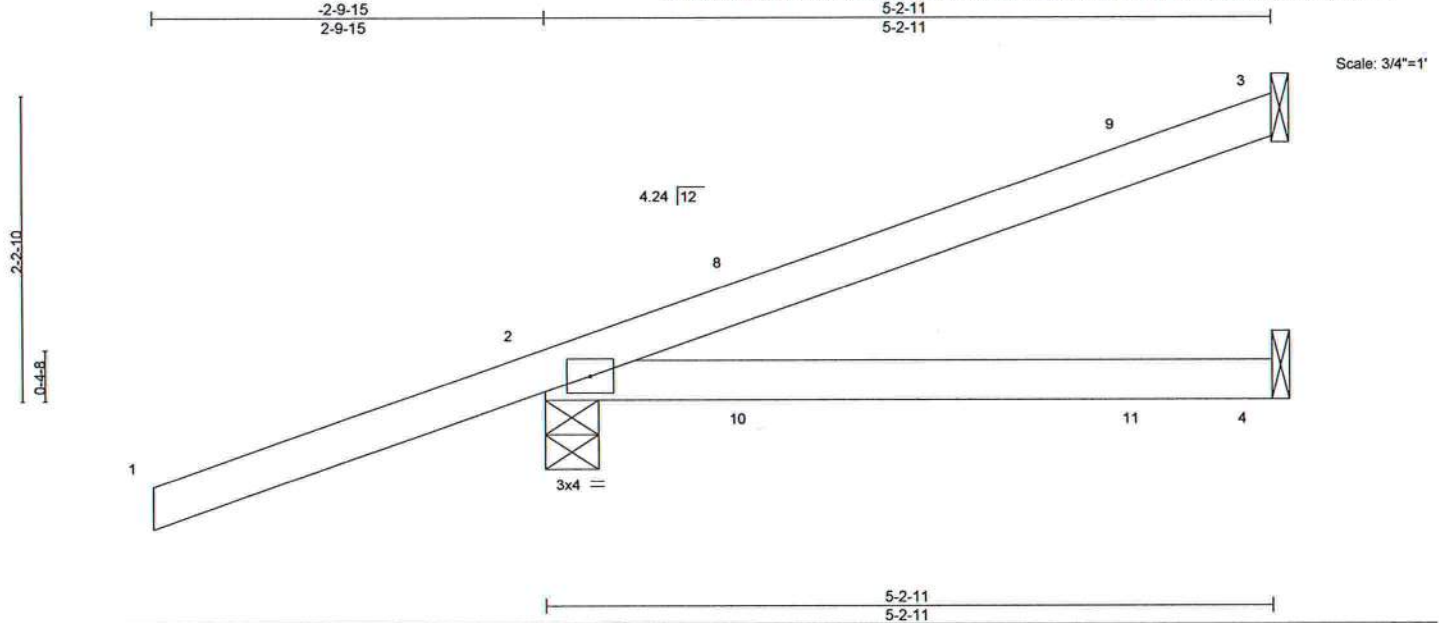
6904 Parke East Blvd.  
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Job 2380547	Truss HJ06	Truss Type Diagonal Hip Girder	Qty 2	Ply 1	GIEBEIG HOMES - LOT 31 CCP T20519009
Job Reference (optional)					

Builders FirstSource, Jacksonville, FL - 32244,

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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 0.56	Vert(LL)	-0.09	4-7	>662	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.41	Vert(CT)	-0.09	4-7	>657	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-MP						Weight: 21 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 5-2-11 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 3=Mechanical, 2=0-4-9, 4=Mechanical  
Max Horz 2=154(LC 4)  
Max Uplift 3=-75(LC 9), 2=-209(LC 4), 4=-4(LC 19)  
Max Grav 3=89(LC 1), 2=301(LC 1), 4=100(LC 22)

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

#### NOTES-

- 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; 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=209.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 103 lb up at 1-6-1, 86 lb down and 103 lb up at 1-6-1, and 26 lb down and 49 lb up at 4-4-0, and 26 lb down and 49 lb up at 4-4-0 on top chord, and 36 lb down and 74 lb up at 1-6-1, 36 lb down and 74 lb up at 1-6-1, and 30 lb down and 2 lb up at 4-4-0, and 30 lb down and 2 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 4-5=-20  
Concentrated Loads (lb)  
Vert: 8=50(F=25, B=25) 9=-3(F=-1, B=-1) 10=70(F=35, B=35) 11=3(F=2, B=2)



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

June 22,2020

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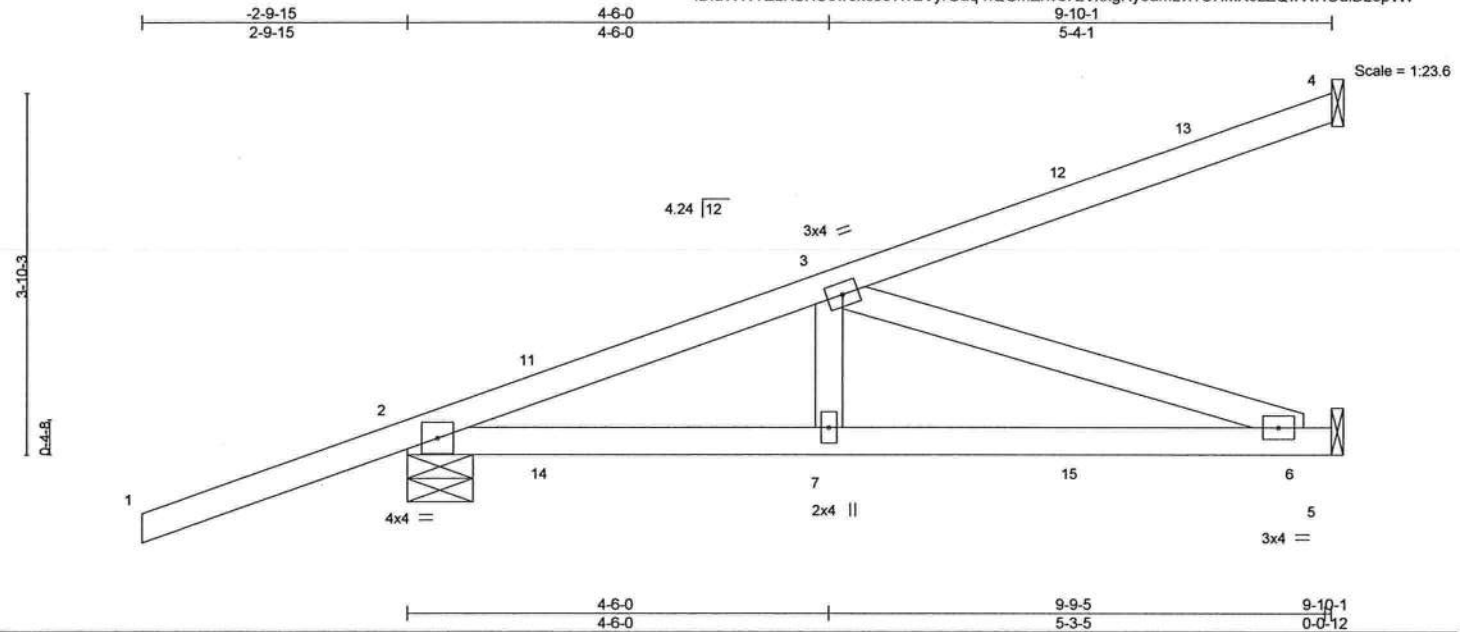
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2380547	Truss HJ10	Truss Type Diagonal Hip Girder	Qty 4	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519010
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Builders FirstSource, Jacksonville, FL - 32244,

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<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.59	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.61	Vert(LL) 0.06 6-7 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.35	Vert(CT) -0.12 6-7 >967 180		
BCDL 10.0	Code FBC2017/TP12014	Matrix-MS	Horz(CT) 0.01 5 n/a n/a	Weight: 44 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-9-15 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 4=Mechanical, 2=0-8-6, 5=Mechanical  
Max Horz 2=226(LC 4)  
Max Uplift 4=123(LC 4), 2=266(LC 4), 5=102(LC 8)  
Max Grav 4=150(LC 1), 2=463(LC 1), 5=266(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=628/272  
BOT CHORD 2-7=322/573, 6-7=322/573  
WEBS 3-6=603/339

#### NOTES-

- 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; 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) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=123, 2=266, 5=102.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 86 lb down and 103 lb up at 1-6-1, 86 lb down and 103 lb up at 1-6-1, 26 lb down and 46 lb up at 4-4-0, 26 lb down and 46 lb up at 4-4-0, and 50 lb down and 106 lb up at 7-1-15, and 50 lb down and 106 lb up at 7-1-15 on top chord, and 36 lb down and 74 lb up at 1-6-1, 36 lb down and 74 lb up at 1-6-1, 28 lb down and 2 lb up at 4-4-0, 28 lb down and 2 lb up at 4-4-0, and 44 lb down and 15 lb up at 7-1-15, and 44 lb down and 15 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=54, 5-8=20  
Concentrated Loads (lb)  
Vert: 7=5(F=2, B=2) 11=50(F=25, B=25) 12=64(F=32, B=32) 14=70(F=35, B=35) 15=49(F=24, B=24)



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

June 22, 2020

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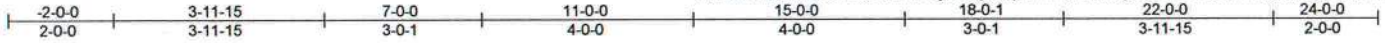


Job 2380547	Truss T01	Truss Type Hip Girder	Qty 1	Ply 1	GIEBEIG HOMES - LOT 31 CCP T20519011
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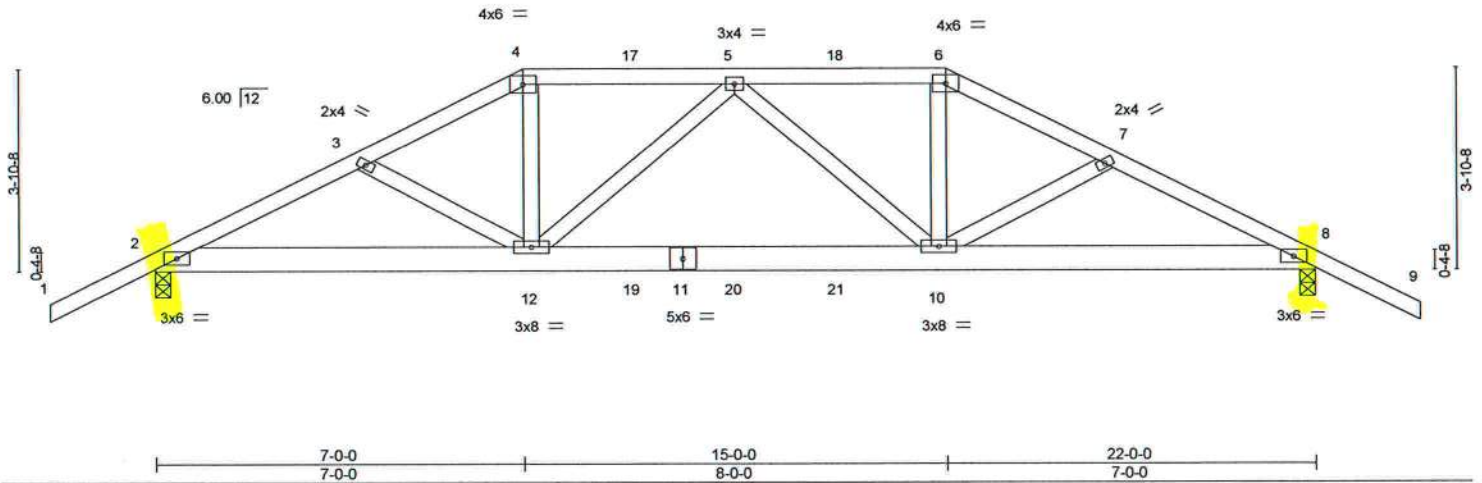
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Scale = 1:42.4



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 0.43	Vert(LL)	0.16 10-12	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.74	Vert(CT)	-0.26 10-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.34	Horz(CT)	0.06 8	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS					Weight: 128 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-3-6 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-4-2 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 8=0-3-8  
Max Horz 2=95(LC 9)  
Max Uplift 2=793(LC 8), 8=808(LC 9)  
Max Grav 2=1586(LC 1), 8=1613(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2947/1464, 3-4=-2777/1385, 4-5=-2494/1288, 5-6=-2545/1314, 6-7=-2836/1417, 7-8=-3006/1496  
BOT CHORD 2-12=-1297/2599, 10-12=-1366/2784, 8-10=-1231/2652  
WEBS 4-12=-365/899, 5-12=-447/357, 5-10=-365/278, 6-10=-313/855

- NOTES-**
- 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; 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=793, 8=808.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 130 lb up at 7-0-0, 106 lb down and 130 lb up at 9-0-12, 106 lb down and 119 lb up at 11-0-0, and 106 lb down and 130 lb up at 12-11-4, and 227 lb down and 253 lb up at 15-0-0 on top chord, and 294 lb down and 155 lb up at 7-0-0, 85 lb down and 25 lb up at 9-0-12, 85 lb down and 25 lb up at 11-0-0, and 85 lb down and 25 lb up at 12-11-4, and 294 lb down and 155 lb up at 14-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=-54, 4-6=-54, 6-9=-54, 2-8=-20  
Concentrated Loads (lb)  
Vert: 4=-106(B) 6=-180(B) 12=-284(B) 5=-106(B) 10=-284(B) 17=-106(B) 18=-106(B) 19=-61(B) 20=-61(B) 21=-61(B)



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Date:

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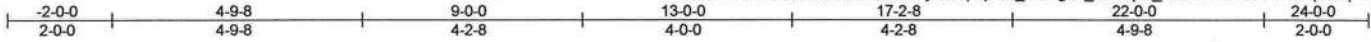


Job 2380547	Truss T02	Truss Type Hip	Qty 1	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519012
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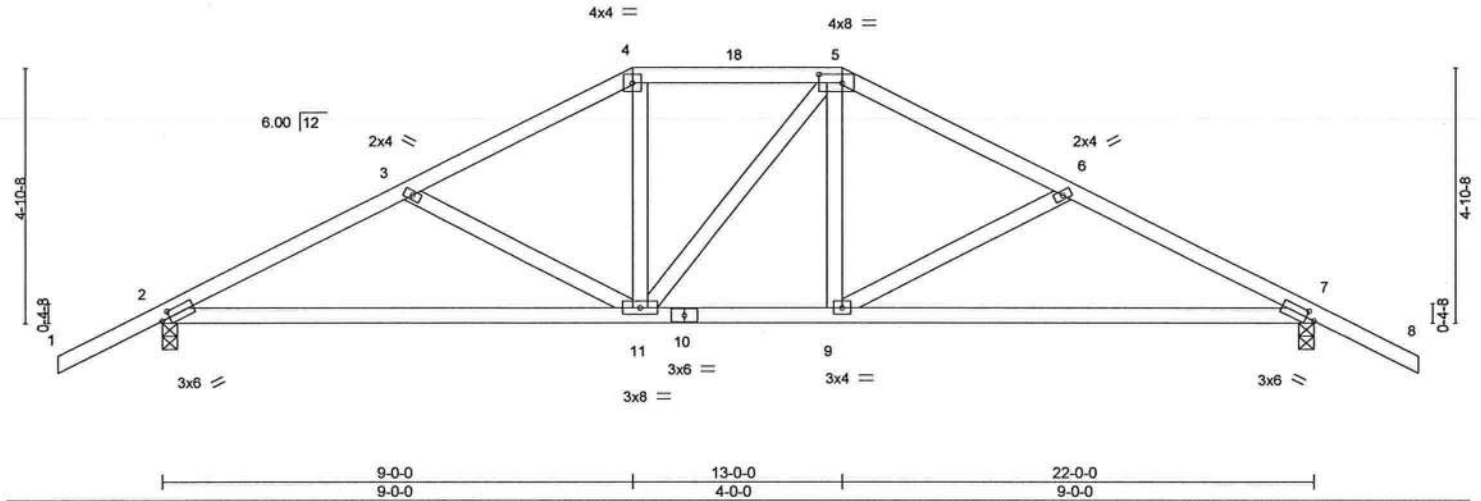


Plate Offsets (X,Y) - [2-0-1-15,0-1-8], [5-0-5-4,0-2-0], [7-0-1-15,0-1-8]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.42	Vert(LL)	-0.16	9-17	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.69	Vert(CT)	-0.32	9-17	>823	180	244/190
BCLL 0.0	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.04	7	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
									Weight: 111 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 4-10-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 7-11-15 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 7=0-3-8  
Max Horz 2=-116(LC 13)  
Max Uplift 2=-378(LC 12), 7=-378(LC 13)  
Max Grav 2=922(LC 1), 7=922(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1378/742, 3-4=-1115/596, 4-5=-952/583, 5-6=-1114/595, 6-7=-1378/742  
BOT CHORD 2-11=-513/1207, 9-11=-294/951, 7-9=-539/1207  
WEBS 3-11=-300/281, 4-11=-90/318, 5-9=-97/318, 6-9=-300/281

#### 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) 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=378, 7=378.



Joaquin Velez PE No.68182  
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Date:

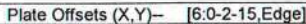
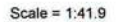
June 22,2020

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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.



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Job Reference (optional)

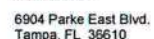
Weight: 105 lb      FT = 20%

BRACING-	
TOP CHORD	Structural wood sheathing directly applied or 3-11-6 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-7-9 oc bracing.

**NOTES-**

- June 22.2020

**WARNING – verify design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE 1014793160, 10032970 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.



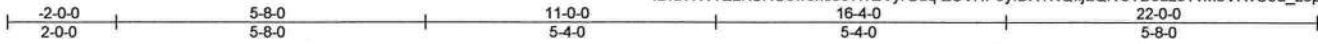
Job 2380547	Truss T04	Truss Type Common	Qty 5	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519014
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:36 2020 Page 1

ID: aWWYZLKHSCowoxc8cTivEVyrGuq-ZCVHP9yfBH?NQIjLQrv3YB6uzoTvMbVRvS6u\_z3pWv

Job Reference (optional)



Scale = 1:40.6

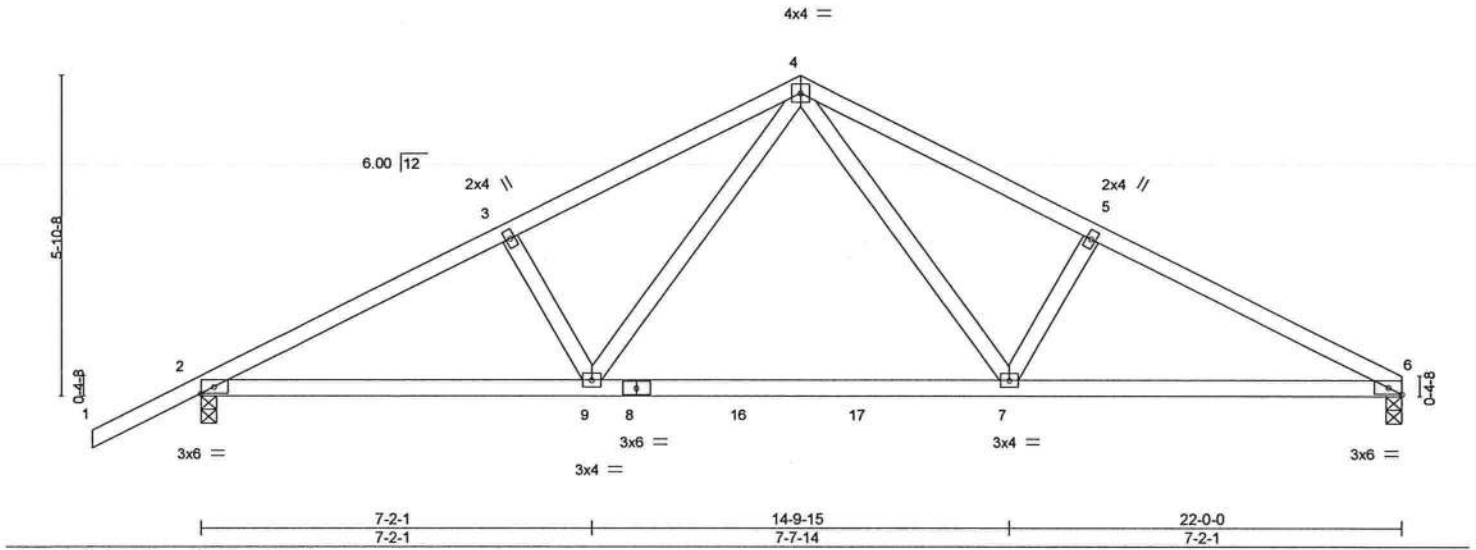


Plate Offsets (X,Y)-- [6:0-2-15,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.48	Vert(LL)	0.25	7-9	>999	240	
TCDL 7.0	Lumber DOL	1.25	BC 0.97	Vert(CT)	-0.42	7-9	>636	180	
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.40	Horz(CT)	0.04	6	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 101 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-11-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-3-10 oc bracing.

**REACTIONS.** (size) 6=0-3-8, 2=0-3-8  
Max Horz 2=157(LC 12)  
Max Uplift 6=409(LC 13), 2=481(LC 12)  
Max Grav 6=1039(LC 1), 2=1157(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1943/1036, 3-4=-1810/1044, 4-5=-1843/1068, 5-6=-1977/1060  
BOT CHORD 2-9=-836/1682, 7-9=-465/1127, 6-7=-861/1715  
WEBS 4-7=-450/822, 5-7=-276/296, 4-9=-412/774, 3-9=-267/285

#### 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) 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
- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=409, 2=481.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=54, 4-6=54, 9-13=20, 7-9=-80(F=60), 7-10=20



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MiTek USA, Inc. FL Cert 6634  
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Date:

June 22,2020

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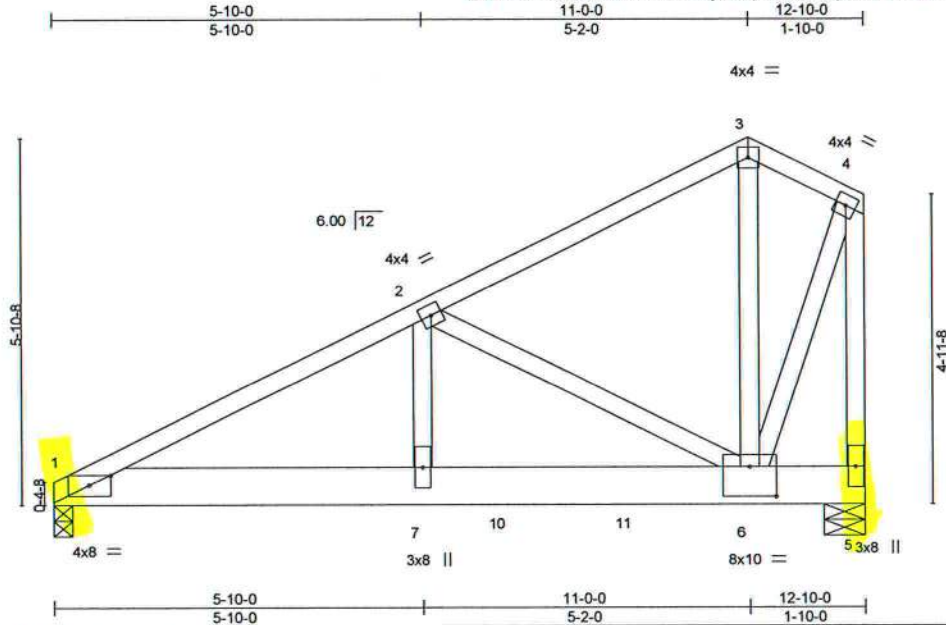


Job 2380547	Truss T05	Truss Type Common Girder	Qty 1	Ply 2	GIEBEIG HOMES - LOT 31 CCP	T20519015
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:37 2020 Page 1

ID: aVWVYZLKSHCOWoxc8cTlvEVyrGuq-1O3fdVzHyb7E1SKwu7M8clkLSNKreoCfz3pWq



Scale = 1:35.3

Plate Offsets (X,Y) - [1:0-4-0,0-1-15], [6:0-5-0,0-5-12]

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 0.24	Vert(LL)	0.05	6-7	>999	240	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.25	Vert(CT)	-0.08	6-7	>999	180	
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.50	Horz(CT)	0.01	5	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 186 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3

#### BRACING-

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

#### REACTIONS.

(size) 1=0-3-8, 5=0-7-15  
Max Horz 1=241(LC 27)  
Max Uplift 1=-717(LC 8), 5=-1193(LC 8)  
Max Grav 1=1572(LC 1), 5=2631(LC 1)

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

TOP CHORD 1-2=-3361/1550, 2-3=-1101/459, 3-4=-1046/490, 4-5=-2959/1374  
BOT CHORD 1-7=-1540/2955, 6-7=-1540/2955  
WEBS 2-7=-881/1850, 2-6=-2312/1261, 3-6=-362/779, 4-6=-1237/2636

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-6-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=717, 5=1193.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1752 lb down and 952 lb up at 7-0-12, and 761 lb down and 361 lb up at 9-0-12, and 761 lb down and 244 lb up at 11-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-3=-54, 3-4=-54, 1-5=-20  
Concentrated Loads (lb)  
Vert: 6=-761(F) 10=-1752(F) 11=-761(F)



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Date:

June 22,2020

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Tampa, FL 33610



Job 2380547	Truss T06	Truss Type Hip Girder	Qty 1	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519016
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Builders FirstSource, Jacksonville, FL - 32244,

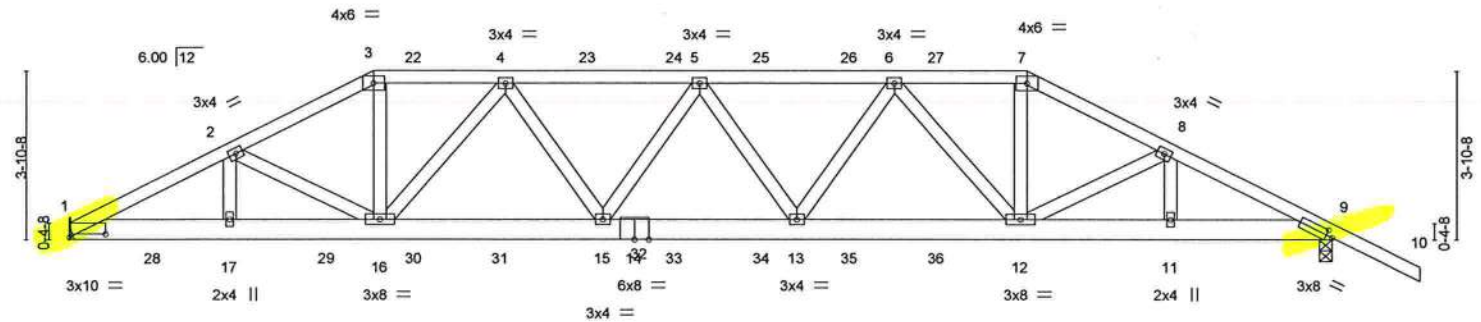
8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:38 2020 Page 1

ID: aWWWZLKSHCwoxc8cTlVrGuq-Wad1qr\_vjuF5fbv6SrtN9zHPGnVNDnouDxDytz3pWp

Job Reference (optional)

3-8-6	7-0-0	10-0-9	14-6-0	18-11-7	22-0-0	25-3-10	29-0-0	31-0-0
3-8-6	3-3-10	3-0-9	4-5-7	4-5-7	3-0-9	3-3-10	3-8-6	2-0-0

Scale = 1:50.9



3-8-6	7-0-0	12-3-5	16-8-12	22-0-0	25-3-10	29-0-0
3-8-6	3-3-10	5-3-5	4-5-7	5-3-5	3-3-10	3-8-6

LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.68	Vert(LL)	0.33 13-15 >999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.93	Vert(CT)	-0.47 13-15 >744	180			
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.11 9 n/a	n/a			
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							
										Weight: 176 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP M 26 \*Except\*  
9-14: 2x6 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 4-8-10 oc bracing.

**REACTIONS.** (size) 1=Mechanical, 9=0-3-8  
Max Horz 1=-116(LC 28)  
Max Uplift 1=-1233(LC 8), 9=-1114(LC 9)  
Max Grav 1=2356(LC 1), 9=2185(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-4697/2470, 2-3=-4095/2147, 3-4=-3698/1985, 4-5=-4733/2463, 5-6=-4740/2425,  
6-7=-3688/1945, 7-8=-4090/2108, 8-9=-4218/2130  
BOT CHORD 1-17=-2207/4180, 16-17=-2207/4180, 15-16=-2260/4435, 13-15=-2463/4898,  
12-13=-2205/4429, 11-12=-1804/3746, 9-11=-1804/3746  
WEBS 2-17=-204/385, 2-16=-622/422, 3-16=-794/1600, 4-16=-1205/702, 4-15=-246/595,  
5-15=-344/272, 5-13=-316/258, 6-13=-254/602, 6-12=-1195/689, 7-12=-662/1464

- 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) gable end zone; 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1233, 9=1114.
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 108 lb down and 130 lb up at 7-11-4, 106 lb down and 130 lb up at 9-11-4, 106 lb down and 130 lb up at 11-11-4, 106 lb down and 125 lb up at 13-11-4, 106 lb down and 130 lb up at 15-11-4, 106 lb down and 130 lb up at 17-11-4, and 106 lb down and 130 lb up at 19-11-4, and 227 lb down and 253 lb up at 22-0-0 on top chord, and 218 lb down and 148 lb up at 1-11-4, 218 lb down and 148 lb up at 3-11-4, 218 lb down and 148 lb up at 5-11-4, 85 lb down and 25 lb up at 7-11-4, 85 lb down and 25 lb up at 9-11-4, 85 lb down and 25 lb up at 11-11-4, 85 lb down and 25 lb up at 13-11-4, 85 lb down and 25 lb up at 15-11-4, 85 lb down and 25 lb up at 17-11-4, and 85 lb down and 25 lb up at 19-11-4, and 294 lb down and 155 lb up at 21-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
Continued on page 2



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June 22, 2020

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Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 31 CCP	T20519016
2380547	T06	Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

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#### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-3=-54, 3-7=-54, 7-10=-54, 1-9=-20

Concentrated Loads (lb)

Vert: 7=-180(F) 17=-218(F) 4=-106(F) 12=-284(F) 22=-106(F) 23=-106(F) 24=-106(F) 25=-106(F) 26=-106(F) 27=-106(F) 28=-218(F) 29=-218(F) 30=-61(F)  
31=-61(F) 32=-61(F) 33=-61(F) 34=-61(F) 35=-61(F) 36=-61(F)

#### 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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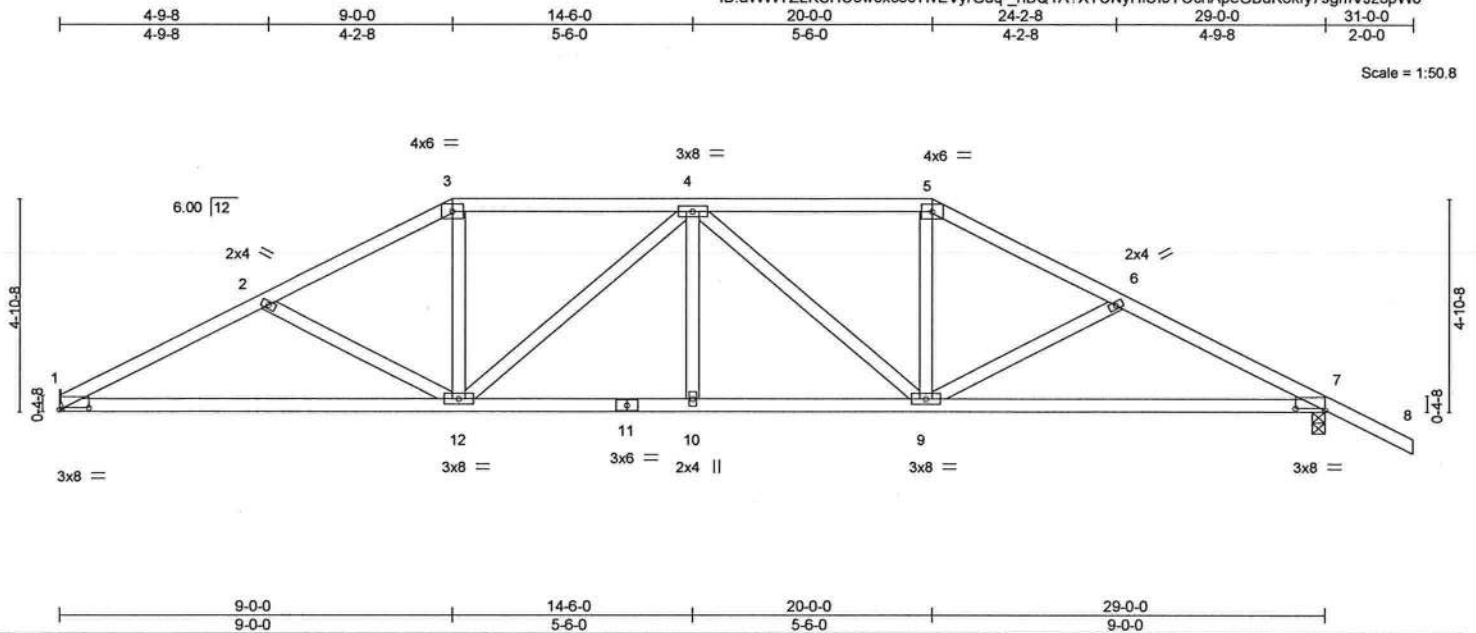


Plate Offsets (X,Y)– [1:0-8-0,0-0-7], [7:0-8-0,0-0-8]									
<b>LOADING</b> (psf)		<b>SPACING-</b> 2-0-0		<b>CSI.</b>		<b>DEFL.</b> in (loc) l/defl L/d		<b>PLATES</b>	<b>GRIP</b>
TCLL	20.0	Plate Grip DOL	1.25	TC	0.41	Vert(LL)	-0.15 12-15 >999 240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.76	Vert(CT)	-0.33 12-15 >999 180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.08 7 n/a n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS				Weight: 146 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 3-10-9 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-5-13 oc bracing.

**REACTIONS.** (size) 1=Mechanical, 7=0-3-8  
Max Horz 1=137(LC 13)  
Max Uplift 1=412(LC 12), 7=482(LC 13)  
Max Grav 1=1069(LC 1), 7=1185(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=1978/1052, 2-3=1710/896, 3-4=1492/855, 4-5=1481/845, 5-6=1696/883,  
 6-7=1959/1025  
 BOT CHORD 1-12=821/1746, 10-12=696/1723, 9-10=696/1723, 7-9=791/1713  
 WEBS 2-12=308/297, 3-12=206/506, 4-12=398/221, 4-9=405/227, 5-9=197/501,  
 6-9=282/273

**NOTES-**

- 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) 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=ib) 1=412. 7=482.



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Date:

June 22, 2020



**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 MH-1473 (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.



6904 Parke East Blvd.  
Tampa, FL 36610



Job 2380547	Truss T08	Truss Type Hip	Qty 1	Ply 1	GIEBEIG HOMES - LOT 31 CCP T20519018
Job Reference (optional)					

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:40 2020 Page 1

ID: aWWWYKSHCcowoxc8cTlvEVyrGuq-SzloFW79EWWouv3VaFvrEOMjubHGrBT5MWQJ1lz3pWn



Scale = 1:52.0

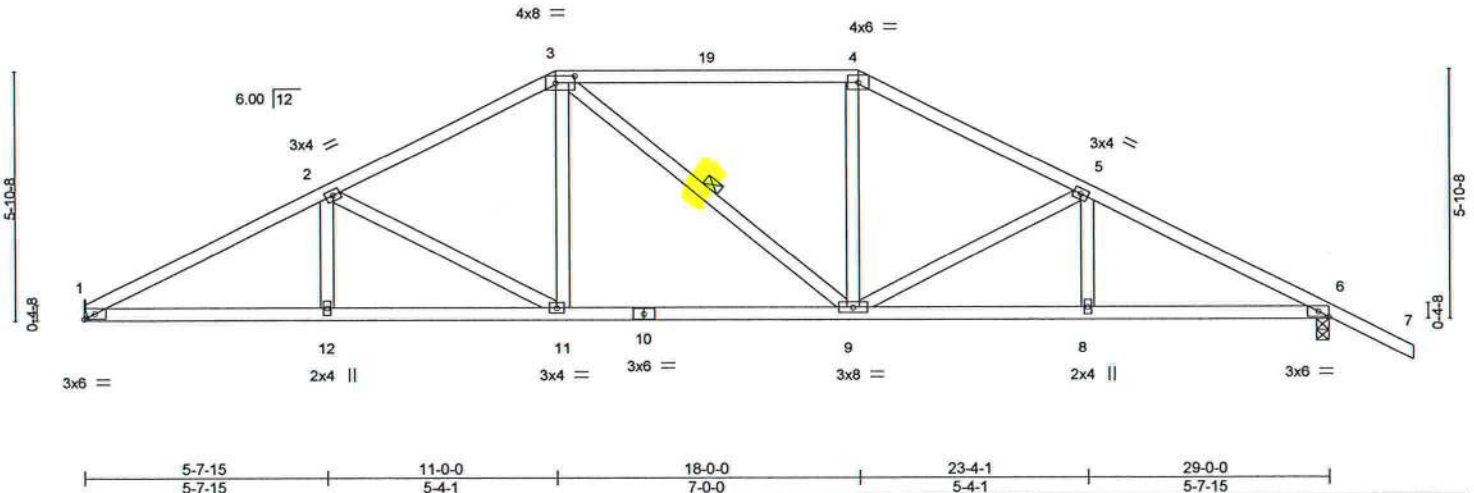


Plate Offsets (X,Y)=[3:0-5-4,0-2-0], [6:0-2-15,Edge]

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 0.74	Vert(LL)	-0.09	11	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.53	Vert(CT)	-0.20	9-11	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.07	6	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						Weight: 147 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 3-1-4 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-6-4 oc bracing.  
WEBS 1 Row at midpt 3-9

**REACTIONS.** (size) 1=Mechanical, 6=0-3-8  
Max Horz 1=-158(LC 13)  
Max Uplift 1=-408(LC 12), 6=-479(LC 13)  
Max Grav 1=1069(LC 1), 6=1185(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-2000/1034, 2-3=-1555/856, 3-4=-1336/823, 4-5=-1550/851, 5-6=-1969/1006  
BOT CHORD 1-12=-794/1740, 11-12=-794/1740, 9-11=-483/1339, 8-9=-765/1707, 6-8=-765/1707  
WEBS 2-11=-466/355, 3-11=-125/407, 4-9=-118/405, 5-9=-433/325

- 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) 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
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=408, 6=479.



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

June 22,2020

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**MiTek**

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Tampa, FL 33610



8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:41 2020 Page 1

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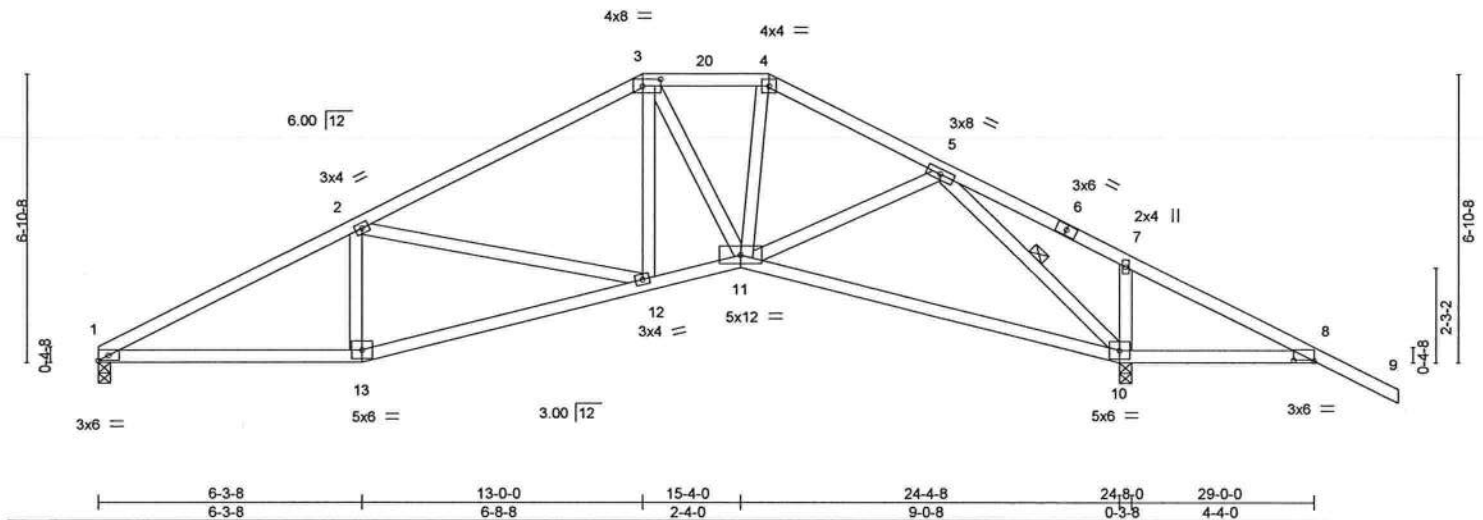


Plate Offsets (X,Y)– [3:0-5-4,0-2-0], [8:0-6-0,0-0-4]										
LOADING (psf)		SPACING- 2-0-0		CSI.	DEFL. in (loc)		l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC 0.49	Vert(LL)	-0.25 10-11	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC 0.81	Vert(CT)	-0.50 10-11	>583	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB 0.41	Horz(CT)	0.07 10	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS					Weight: 149 lb	FT = 20%

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

<b>BRACING-</b>	
<b>TOP CHORD</b>	Structural wood sheathing directly applied or 4-4-14 oc purlins.
<b>BOT CHORD</b>	Rigid ceiling directly applied or 6-0-0 oc bracing.
<b>WEBS</b>	1 Row at midpt                      5-10

**REACTIONS.** (size) 1=0-3-8, 10=0-3-8  
 Max Horz 1=-179(LC 13)  
 Max Uplift 1=-345(LC 12), 10=-564(LC 13)  
 Max Grav 1=844(LC 1), 10=1410(LC 1)

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

**TOP CHORD** 1-2=-1485/740, 2-3=-1199/523, 3-4=-1000/469, 4-5=-1120/463, 5-7=-693/624,  
7-8=-816/614

**BOT CHORD** 1-13=-582/1294, 12-13=-596/1343, 11-12=-292/1032, 10-11=-159/610, 8-10=-498/864

**WEBS** 2-12=-319/417, 3-12=-157/265, 4-11=-148/357, 5-11=-144/420, 5-10=-1577/1005,  
7-10=-250/292

**NOTES-**

- 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; cantilever right exposed ;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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)  
1=345, 10=564.



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

June 22, 2020

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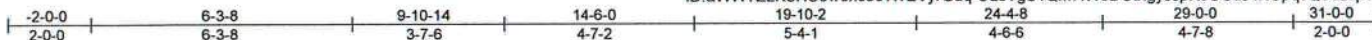
6904 Parke East Blvd.  
Tampa, FL 36610

Job 2380547	Truss T10	Truss Type Roof Special	Qty 2	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519020
Job Reference (optional)						

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:42 2020 Page 1

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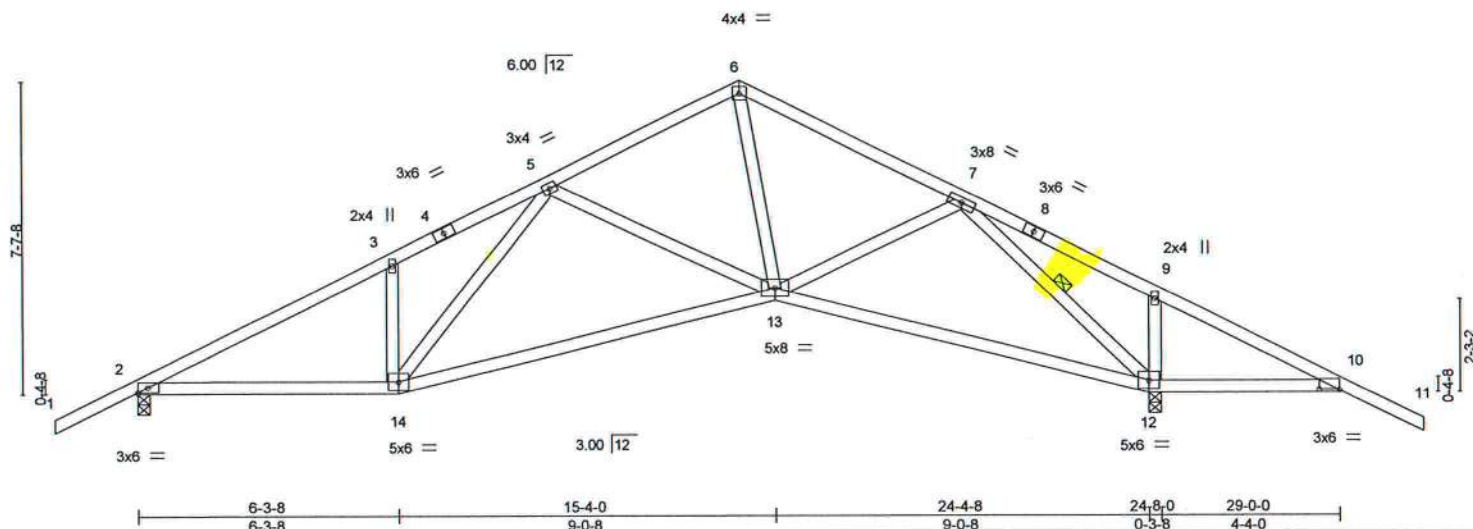


Plate Offsets (X,Y)---		[10-0-6-0,0-0-3]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0		Plate Grip DOL 1.25		TC 0.37		Vert(LL)	-0.24 13-14	>999	240	MT20	244/190
TCDL 7.0		Lumber DOL 1.25		BC 0.85		Vert(CT)	-0.50 13-14	>580	180		
BCLL 0.0 *		Rep Stress Incr YES		WB 0.44		Horz(CT)	0.07 12	n/a	n/a		
BCDL 10.0		Code FBC2017/TPI2014		Matrix-MS						Weight: 148 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 4-4-14 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
WEBS 1 Row at midpt 7-12

#### REACTIONS.

(size) 2=0-3-8, 12=0-3-8  
Max Horz 2=173(LC 12)  
Max Uplift 2=411(LC 12), 12=558(LC 13)  
Max Grav 2=957(LC 1), 12=1405(LC 1)

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

TOP CHORD 2-3=-1451/663, 3-5=-1420/786, 5-6=-974/429, 6-7=-1100/454, 7-9=-694/636,  
9-10=-816/618  
BOT CHORD 2-14=-529/1238, 13-14=-463/1181, 12-13=-173/658, 10-12=-502/864  
WEBS 3-14=-262/282, 5-13=-369/395, 6-13=-221/631, 7-13=-82/346, 7-12=-1619/1039,  
9-12=-248/288

#### 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) gable end zone and C-C Exterior(2) zone; cantilever 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=411, 12=558.



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

June 22,2020

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6904 Parke East Blvd.  
Tampa, FL 33610

Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 31 CCP	T20519021
2380547	T11	Roof Special	12	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

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-2-0-0	6-3-8	9-10-14	14-6-0	19-10-2	24-4-8	29-0-0	31-0-0
2-0-0	6-3-8	3-7-6	4-7-2	5-4-1	4-6-6	4-7-8	2-0-0

Scale = 1:53.8

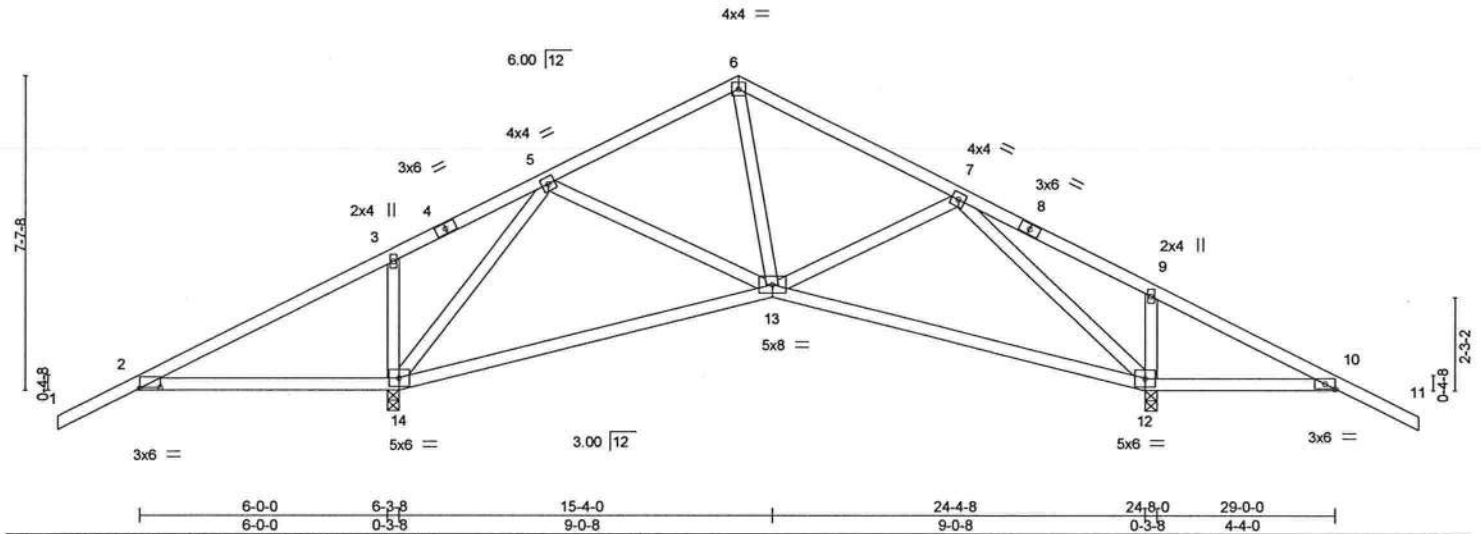


Plate Offsets (X,Y)-- [2-0-6-0,0-0-3], [10-0-2-15,Edge]									
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.48	Vert(LL)	-0.22 12-13	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.70	Vert(CT)	-0.43 12-13	>501	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.85	Horz(CT)	0.02 12	n/a	n/a		
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
								Weight: 148 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 5-6-15 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:  
10-0-0 oc bracing: 12-13.

**REACTIONS.** (size) 14=0-3-8, 12=0-3-8  
Max Horz 14=173(LC 12)  
Max Uplift 14=553(LC 12), 12=482(LC 13)  
Max Grav 14=1290(LC 1), 12=1074(LC 24)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-947/767, 3-5=-791/739, 5-6=-358/112, 6-7=-390/126, 7-9=-698/639,  
9-10=-817/619  
BOT CHORD 2-14=-616/1000, 13-14=-121/600, 12-13=0/464, 10-12=-504/866  
WEBS 3-14=-296/350, 5-14=-996/690, 5-13=-165/356, 6-13=0/305, 7-12=-1018/631,  
9-12=-242/284

#### NOTES-

- 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; cantilever 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 14=553, 12=482.



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

June 22,2020

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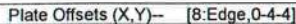


6904 Parke East Blvd.  
Tampa, FL 33610



T20519022

Scale = 1:39.3



**LUMBER-**

**BRACING-**

TOP CHORD	Structural wood sheathing directly applied or 3-2-14 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-4-11 oc bracing.
WEBS	1 Row at midpt                      6-8

REACTIONS. (size) 8=Mechanical, 2=0-3-8  
Max Horz 2=213(LC 27)  
Max Uplift 8=932(LC 5), 2=751(LC 8)  
Max Grav 8=1772(LC 1), 2=1499(LC 1)

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

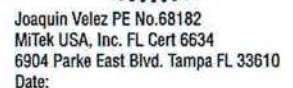
TOP CHORD	2-3=-2738/1367, 3-4=-2570/1294, 4-5=-2307/1205, 5-6=-2278/1136, 7-8=-291/230
BOT CHORD	2-11=-1328/2413, 9-11=-1347/2532, 8-9=-947/1758
WEBS	4-11=-279/778, 5-11=-344/275, 5-9=-451/386, 6-9=-374/936, 6-8=-2152/1162

**NOTES-**

- 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., GCpi=0.18; MWFRS (envelope) gable end zone; 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) Refer to girder(s) for truss to truss connections.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=932, 2=751.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 125 lb down and 130 lb up at 7-0-0, 106 lb down and 130 lb up at 9-0-12, 106 lb down and 130 lb up at 11-0-12, 106 lb down and 130 lb up at 13-0-12, 106 lb down and 129 lb up at 15-0-12, 106 lb down and 130 lb up at 17-0-12, and 106 lb down and 130 lb up at 19-0-12, and 128 lb down and 130 lb up at 21-3-2 on top chord, and 294 lb down and 155 lb up at 7-0-0, 85 lb down and 25 lb up at 9-0-12, 85 lb down and 25 lb up at 11-0-12, 85 lb down and 25 lb up at 13-0-12, 85 lb down and 25 lb up at 15-0-12, 85 lb down and 25 lb up at 17-0-12, and 85 lb down and 25 lb up at 19-0-12, and 101 lb down and 17 lb up at 21-3-2 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

- 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
Uniform Loads (plf)  
Vert: 1-4=54, 4-7=54, 2-8=20



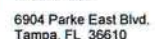
June 22, 2020

Continued on page 2

**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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**Safety Information** - available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



Job	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 31 CCP	T20519022
2380547	T12	Half Hip Girder	1	1	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

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**LOAD CASE(S) Standard**  
**Concentrated Loads (lb)**

Vert: 4=-106(B) 7=-128(B) 8=-69(B) 11=-284(B) 14=-106(B) 15=-106(B) 16=-106(B) 18=-106(B) 19=-106(B) 20=-106(B) 21=-61(B) 22=-61(B) 23=-61(B) 24=-61(B)  
25=-61(B) 26=-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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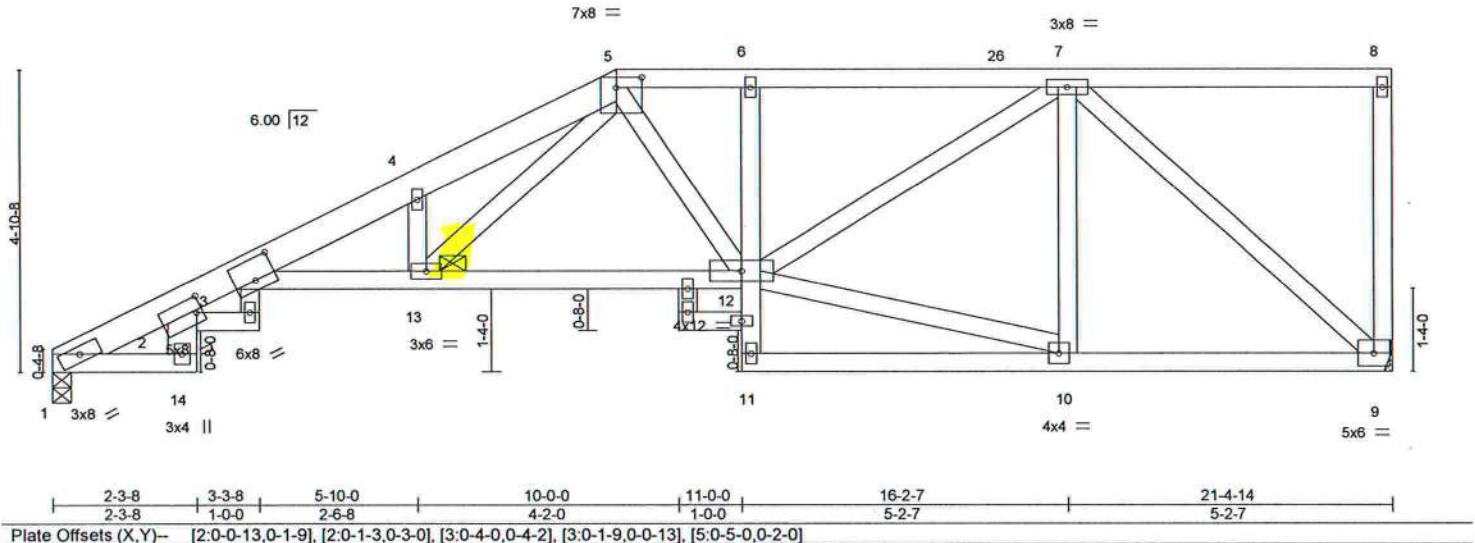


6904 Parke East Blvd.  
Tampa, FL 36610



Job 2380547	Truss T13	Truss Type Half Hip	Qty 1	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519023
Builders FirstSource, Jacksonville, FL - 32244,						Job Reference (optional)

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:46 2020 Page 1  
ID: aWWWZLKSHCOWOxc8cTivEVyrGuq-H763Va4wqMGycqWewW0FTfco\_7KsFni\_kSteEPz3pWh  
-0-0 2-3-8 5-10-0 9-0-0 11-0-0 16-2-7 21-4-14  
-0-0 2-3-8 3-6-8 3-2-0 2-0-0 5-2-7 5-2-7  
Scale = 1:35.6



<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.57	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.51	Vert(LL) 0.28 13-25 >899 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.81	Vert(CT) -0.38 13-25 >673 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.23 9 n/a n/a		
	Code FBC2017/TPI2014			Weight: 136 lb	FT = 20%

**LUMBER-**  
**TOP CHORD** 2x6 SP M 26 \*Except\*  
5-8: 2x4 SP No.2  
**BOT CHORD** 2x4 SP No.3 \*Except\*  
1-14, 9-11: 2x4 SP No.2, 2-14: 2x6 SP No.2, 3-12: 2x4 SP M 31  
**WEBS** 2x4 SP No.3

**BRACING-**  
**TOP CHORD** Structural wood sheathing directly applied or 5-0-2 oc purlins, except end verticals.  
**BOT CHORD** Rigid ceiling directly applied or 9-1-6 oc bracing. Except: 10-0-0 oc bracing: 11-12  
**JOINTS** 1 Brace at Jt(s): 13

**REACTIONS.** (size) 1=0-3-8, 9=Mechanical  
Max Horz 1=221(LC 12)  
Max Uplift 1=323(LC 12), 9=342(LC 9)  
Max Grav 1=768(LC 1), 9=779(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-2=-903/362, 2-3=-279/11, 3-4=-2262/1234, 4-5=-2531/1500, 5-6=-1279/722, 6-7=-1273/722  
**BOT CHORD** 1-14=-399/591, 3-13=-1351/2185, 12-13=-730/1223, 9-10=-371/695  
**WEBS** 4-13=-718/559, 5-13=-890/1377, 10-12=-362/678, 7-12=-417/686, 7-9=-923/494

- 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) 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
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 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.
  - Refer to girder(s) for truss to truss connections.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=323, 9=342.



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

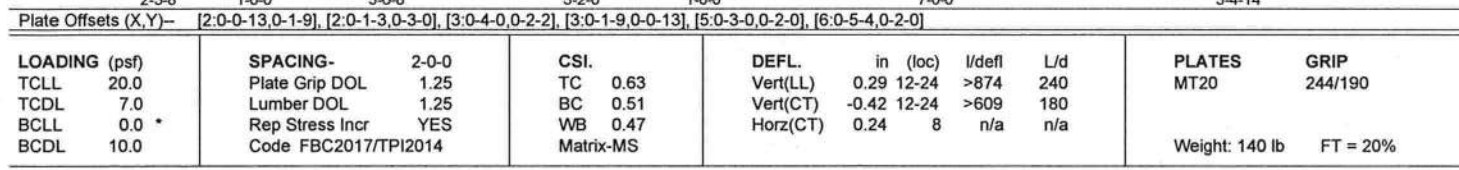
June 22, 2020

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Tampa, FL 33610



Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:47 2020 Page 1  
 ID: aWWWYZLKSHCoxowc8TivEVyrGuq-lJgRjw5YbfOpE\_5rUEXV0s8ylPh9\_J77z6cBnrz3pWg  
 -2-0-0 | 2-3-8 | 6-10-0 | 11-0-0 | 18-0-0 | 21-4-14  
 2-0-0 | 2-3-8 | 4-6-8 | 4-2-0 | 7-0-0 | 3-4-14



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

TOP CHORD	1-2=-903/393, 2-3=-279/25, 3-4=-1985/1093, 4-5=-1176/661, 5-6=-997/634, 6-7=-497/277, 7-8=-766/418
BOT CHORD	1-13=-393/591, 3-12=-1155/1903, 11-12=-1155/1903, 5-11=-73/307
WEBS	4-11=-1015/680, 9-11=-196/368, 6-11=-403/690, 6-9=-442/320, 7-9=-315/649, 4-12=-71/279

- 
- A circular professional engineer seal for the State of Florida. The outer ring contains the text "JOAQUIN VELEZ" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. Inside this ring, the word "LICENSE" is at the top and "STATE OF FLORIDA" is at the bottom, also separated by two stars. In the center, the license number "No 68182" is printed above a handwritten signature.

June 22, 2020

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

Job 2380547	Truss T15	Truss Type HIP	Qty 1	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519025
Builders FirstSource, Jacksonville, FL - 32244,						8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:48 2020 Page 1
Job Reference (optional)						ID: aWWYZLKSHCwoxoc8cTivEVyrGuq-DVEpwF6BMzWgs8g12x3kY4h7LpujlmNHBmMkJl3pWf

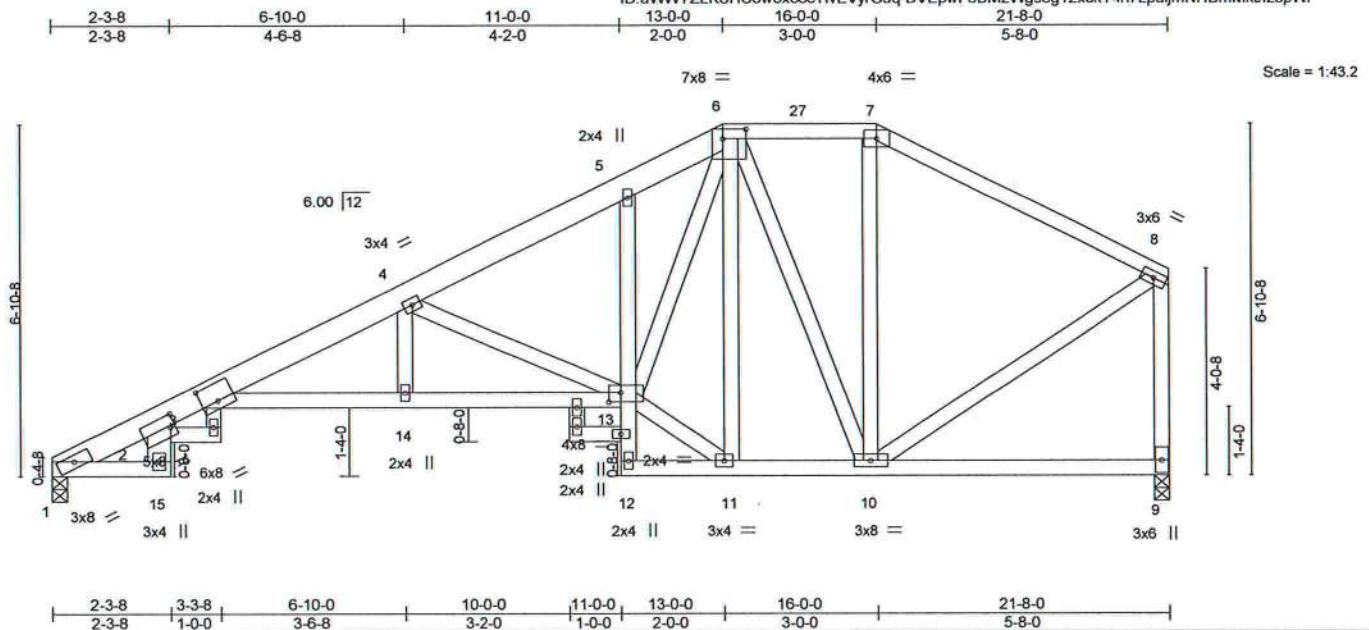


Plate Offsets (X,Y)--- [2:0-0-13,0-1-9], [2:0-1-3,0-3-0], [3:0-4-0,0-4-2], [3:0-1-9,0-0-13], [6:0-5-8,0-2-4], [13:0-2-12,0-2-4]									
LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL. in (loc) l/defl L/d		PLATES GRIP	
TCLL	20.0	Plate Grip DOL 1.25		TC	0.58	Vert(LL)	0.33 14-26 >777 240	MT20	244/190
TCDL	7.0	Lumber DOL 1.25		BC	1.00	Vert(CT)	-0.45 14-26 >578 180		
BCLL	0.0 *	Rep Stress Incr YES		WB	0.47	Horz(CT)	0.27 9 n/a n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS				Weight: 156 lb	FT = 20%

#### LUMBER-

TOP CHORD 2x4 SP No.2 \*Except\*  
1-6: 2x6 SP M 26  
BOT CHORD 2x4 SP No.2 \*Except\*  
2-15: 2x6 SP No.2, 5-12, 2-16, 17-18: 2x4 SP No.3  
WEBS 2x4 SP No.3

#### BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-11-13 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 10-0-0 oc bracing: 12-13

#### REACTIONS.

(size) 1=0-3-8, 9=0-3-8  
Max Horz 1=241(LC 12)  
Max Uplift 1=315(LC 12), 9=274(LC 12)  
Max Grav 1=778(LC 1), 9=789(LC 1)

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

TOP CHORD 1-2=-915/410, 2-3=-283/53, 3-4=-2019/1130, 4-5=-1186/678, 5-6=-1100/737,  
6-7=-515/400, 7-8=-642/374, 8-9=-735/443  
BOT CHORD 1-15=-399/599, 3-14=-1192/1951, 13-14=-1192/1951, 10-11=-316/619  
WEBS 4-13=-1078/722, 11-13=-350/707, 6-13=-633/1013, 6-11=-354/192, 6-10=-313/192,  
8-10=-281/590, 4-14=-49/252

#### 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) 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
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=315, 9=274.



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

June 22,2020

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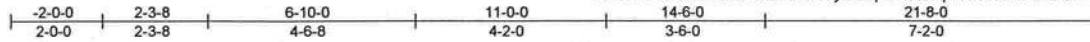
6904 Parke East Blvd.  
Tampa, FL 33610

Job 2380547	Truss T16	Truss Type Roof Special	Qty 3	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519026
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Builders FirstSource, Jacksonville, FL - 32244,

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ID: aWWYVLKSHCowoxc8cTlvEVyrGuq-hinC8b6p7HeXTIFDbeaz5HEH7DM6SDHQQ5lrkz3pWe



5x8 =

Scale: 1/4"=1'

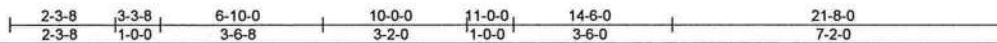
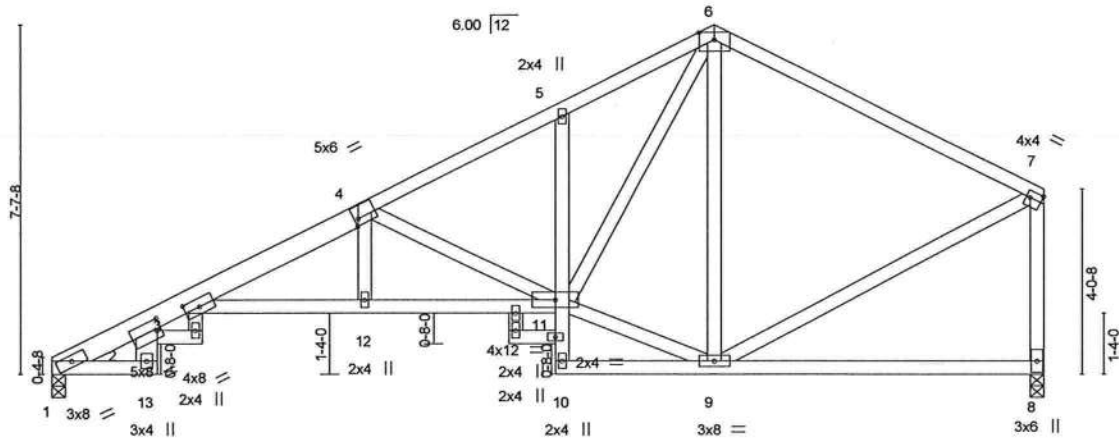


Plate Offsets (X,Y) - [2:0-0-13,0-1-9], [2:0-1-3,0-3-0], [3:0-4-0,0-2-2], [3:0-1-9,0-0-13], [4:0-1-0,0-1-12], [7:Edge,0-1-12]

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 0.64	Vert(LL)	0.32 12-24	>796	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.48	Vert(CT)	-0.43 12-24	>596	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.50	Horz(CT)	0.25 8	n/a	n/a		
BCDL 10.0	Code FBC2017/TP12014		Matrix-MS						
								Weight: 139 lb	FT = 20%

**LUMBER-**  
**TOP CHORD** 2x4 SP No.2 \*Except\*  
1-4: 2x6 SP M 26  
**BOT CHORD** 2x4 SP No.3 \*Except\*  
1-13,8-10: 2x4 SP No.2, 2-13: 2x6 SP No.2, 3-11: 2x4 SP M 31  
**WEBS** 2x4 SP No.3

**BRACING-**  
**TOP CHORD** Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals.  
**BOT CHORD** Rigid ceiling directly applied or 6-11-13 oc bracing. Except: 10-0-0 oc bracing: 10-11

**REACTIONS.** (size) 1=0-3-8, 8=0-3-8  
Max Horz 1=257(LC 12)  
Max Uplift 1=310(LC 12), 8=279(LC 12)  
Max Grav 1=778(LC 1), 8=789(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 1-2=-915/415, 2-3=-283/69, 3-4=-1927/1091, 4-5=-1164/678, 5-6=-1110/758, 6-7=-682/405, 7-8=-724/455  
**BOT CHORD** 1-13=-402/599, 3-12=-1140/1838, 11-12=-1145/1855  
**WEBS** 4-12=-77/284, 4-11=-964/654, 9-11=-238/537, 6-11=-580/886, 6-9=-336/258, 7-9=-258/563

- 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) 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
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=310, 8=279.



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MiTek USA, Inc. FL Cert 6634  
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Job 2380547	Truss T17	Truss Type Common	Qty 1	Ply 1	GIEBEIG HOMES - LOT 31 CCP	T20519027
Builders FirstSource, Jacksonville, FL - 32244,						8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:50 2020 Page 1
ID:aWWYVLKSHCowoxc8cTlvEVyrGuq-9uLaLx7RuamO5SpQ9M5CeVmSsdhLBbmZifrrOAz3pWd						Job Reference (optional)

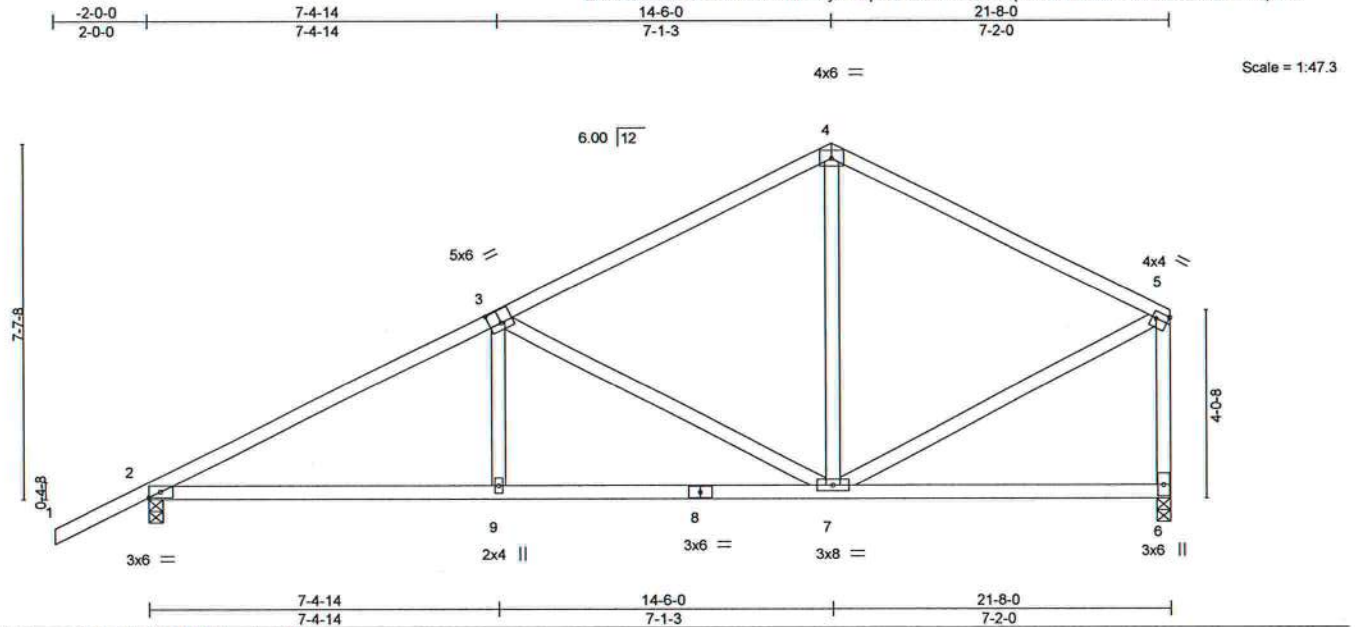


Plate Offsets (X,Y) - [3:0-3-0,0-3-4], [5:Edge,0-1-12]

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 0.64	Vert(LL)	0.09	9-12	>999	240	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.54	Vert(CT)	-0.16	9-12	>999	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.80	Horz(CT)	0.03	6	n/a	n/a	
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						
Weight: 116 lb									FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-6-15 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 7-0-1 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
Max Horz 2=297(LC 12)  
Max Uplift 2=-380(LC 12), 6=-277(LC 12)  
Max Grav 2=909(LC 1), 6=791(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-1307/646, 3-4=-698/413, 4-5=-687/403, 5-6=-727/451  
BOT CHORD 2-9=-669/1104, 7-9=-669/1104  
WEBS 3-9=0/298, 3-7=-652/466, 4-7=-43/313, 5-7=-258/572

#### 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) 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=380, 6=277.



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June 22,2020

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 2380547	Truss T18	Truss Type Hip Girder	Qty 1	Ply 2	GIEBEIG HOMES - LOT 31 CCP	T20519028
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Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:52 2020 Page 1

ID: aWWWY2LKSHCOWoxc8cTlVcYrGuq-5HTKmd9hQC05LzoHn7gjuwsuPQP5fZis6OKyS3z3pWb

-2-0-0	3-8-14	6-4-0	8-11-2	12-8-0
2-0-0	3-8-14	2-7-2	2-7-2	3-8-14

Scale: 1/2"=1'

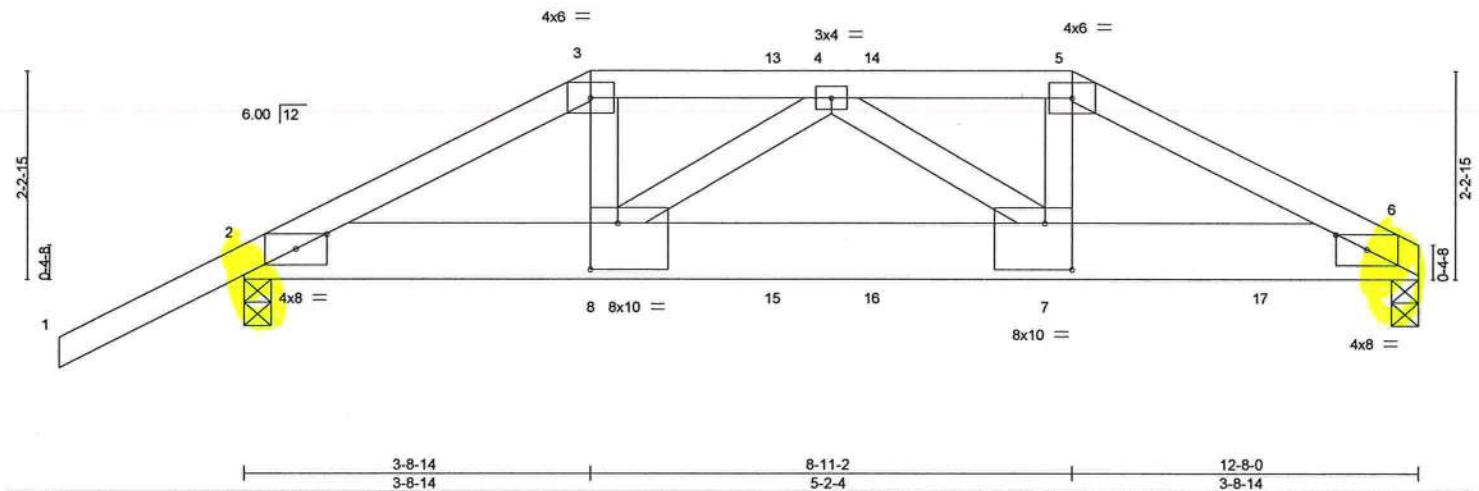


Plate Offsets (X, Y) -- [2-0-4-0, 0-1-15], [6-0-4-0, 0-1-15], [7-0-3-8, 0-6-0], [8-0-3-8, 0-6-0]									
LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES
TCCL 20.0	Plate Grip DOL	1.25	TC 0.32	Vert(LL)	0.08	7-8	>999	240	MT20
TCDL 7.0	Lumber DOL	1.25	BC 0.40	Vert(CT)	-0.12	7-8	>999	180	GRIP
BCCL 0.0	Rep Stress Incr	NO	WB 0.52	Horz(CT)	0.02	6	n/a	n/a	244/190
BCDL 10.0	Code FBC2017/TPI2014		Matrix-MS						Weight: 150 lb
									FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 6=0-3-8, 2=0-3-8  
Max Horz 2=83(LC 12)  
Max Uplift 6=-1566(LC 9), 2=-1060(LC 8)  
Max Grav 6=3438(LC 1), 2=2156(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-4494/2169, 3-4=-4119/2025, 4-5=-5810/2784, 5-6=-6307/2982  
BOT CHORD 2-8=-1905/3965, 7-8=-2448/5102, 6-7=-2596/5591  
WEBS 3-8=-897/1911, 4-8=-1237/624, 4-7=-376/889, 5-7=-1244/2710

#### NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-5-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; 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; 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=1566, 2=1060.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 38 lb down and 66 lb up at 3-8-14, 35 lb down and 61 lb up at 5-9-10, and 35 lb down and 61 lb up at 6-10-6, and 38 lb down and 66 lb up at 8-11-2 on top chord, and 130 lb down and 20 lb up at 3-8-14, 36 lb down at 5-9-10, 36 lb down at 6-10-6, 2336 lb down and 1253 lb up at 7-0-12, 130 lb down and 20 lb up at 8-10-6, and 1049 lb down and 432 lb up at 9-0-12, and 1049 lb down and 428 lb up at 11-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

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

Continued on page 2



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

June 22, 2020

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

Design valid for use only with MiTek® connectors. This design is based only 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-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	Truss	Truss Type	Qty	Ply	GIEBEIG HOMES - LOT 31 CCP	T20519028
2380547	T18	Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource, Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Mon Jun 22 06:19:52 2020 Page 2  
ID:aVWWYZLKSHCowoxc8cTlvEVyrGuq-5HTKmd9hQC05LzoHn7gjwsuPQP5fZis6OKyS3z3pWb

#### LOAD CASE(S) Standard

##### Uniform Loads (plf)

Vert: 1-3=-54, 3-5=-54, 5-6=-54, 2-6=-20

##### Concentrated Loads (lb)

Vert: 3=-20(B) 5=-20(B) 8=-11(B) 7=-1061(F=-1049, B=-11) 13=-20(B) 14=-20(B) 15=-13(B) 16=-2350(F=-2336, B=-13) 17=-1049(F)

#### 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.

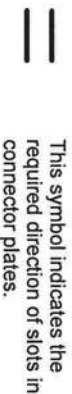
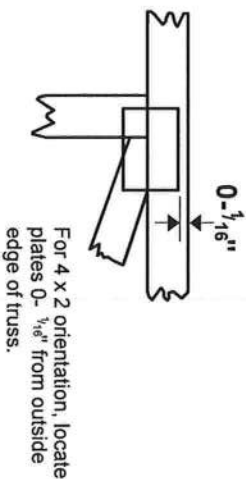
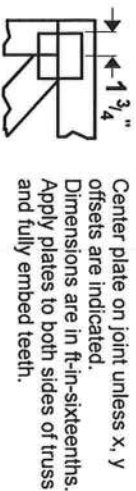


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# Symbols

## PLATE LOCATION AND ORIENTATION



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

## PLATE SIZE

4 X 4

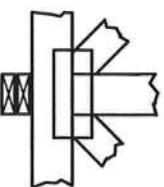
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



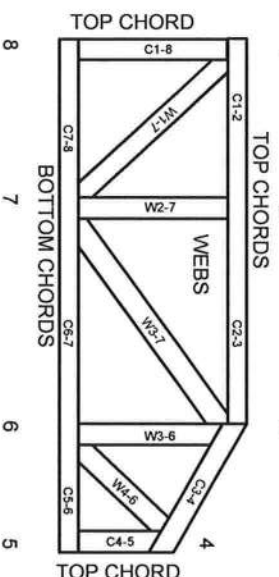
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP11: 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/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: MIL-7473 rev. 10/03/2015



# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

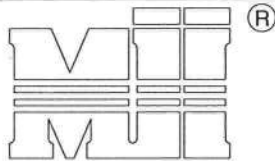
1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor 1 bracing should be considered.
3. Never exceed 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 ware 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.



AUGUST 1, 2016

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

MII-T-BRACE 2



MiTek USA, Inc.

ENGINEERED BY  
**TRENCO**  
A MiTek Affiliate

MiTek USA, Inc. Page 1 of 1

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

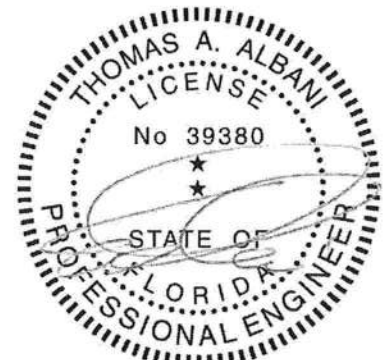
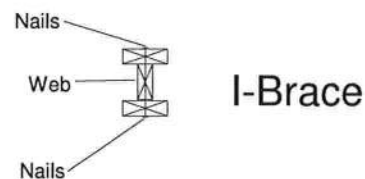
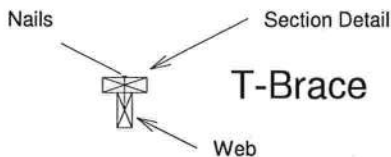
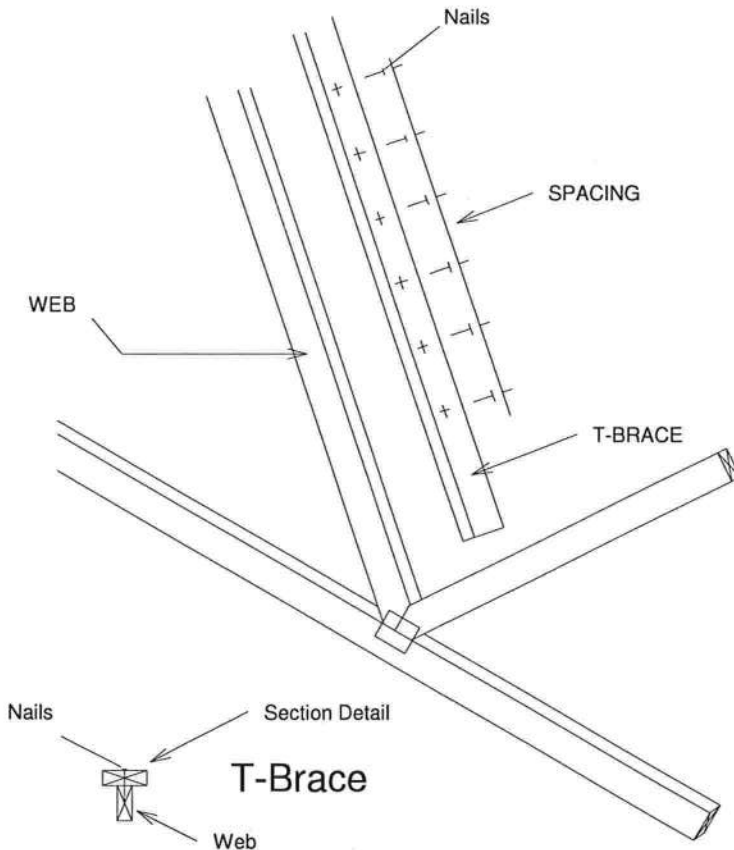
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

## 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



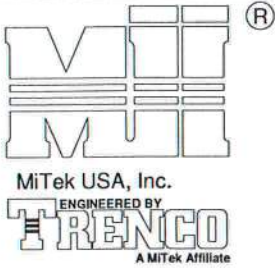
AUGUST 1, 2016

## SCAB-BRACE DETAIL

MII-SCAB-BRACE

MiTek USA, Inc.

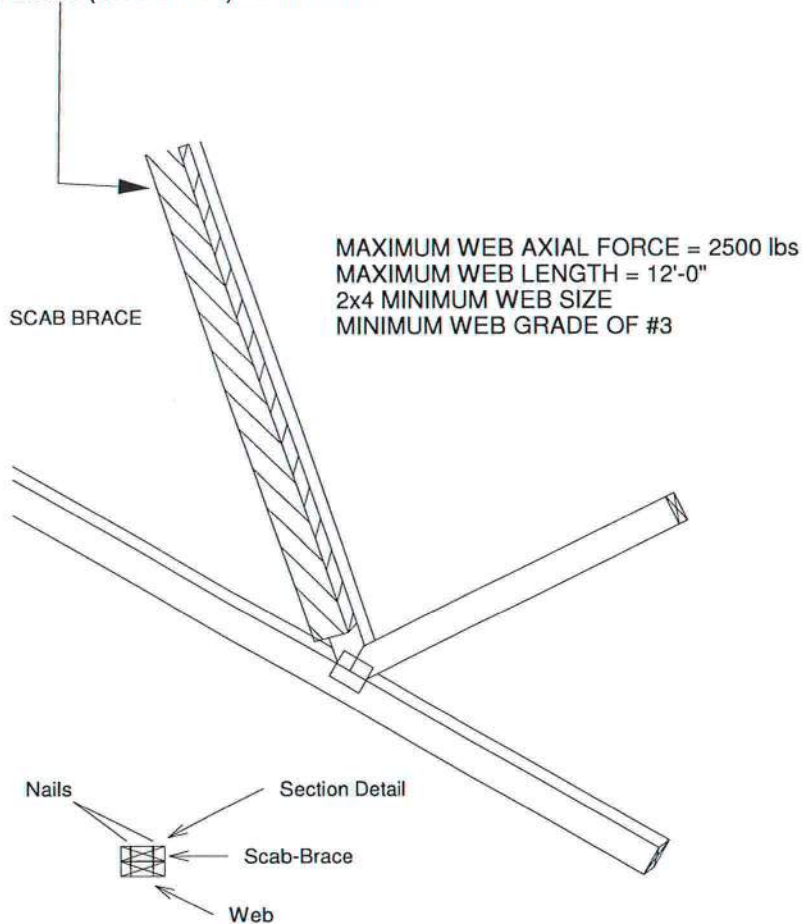
Page 1 of 1



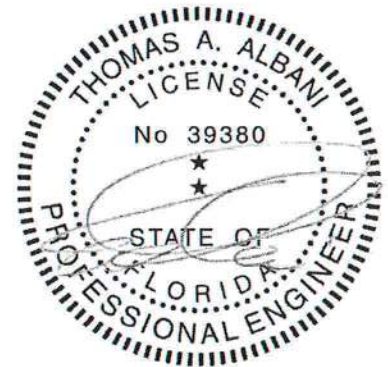
Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.  
Scab must cover full length of web +/- 6".

\*\*\* 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.



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Date:

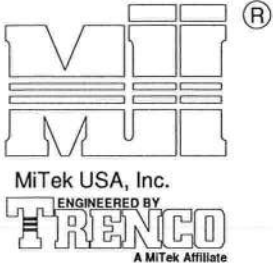
February 12, 2018

AUGUST 1, 2016

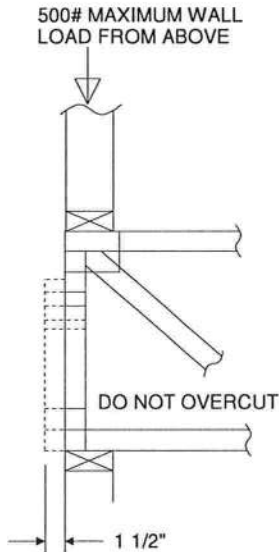
# STANDARD REPAIR TO REMOVE END VERTICAL (RIBBON NOTCH VERTICAL)

MII-REP05

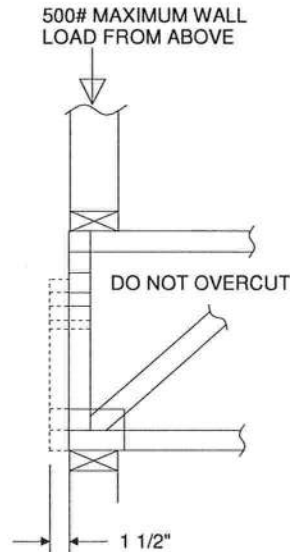
MiTek USA, Inc. Page 1 of 1



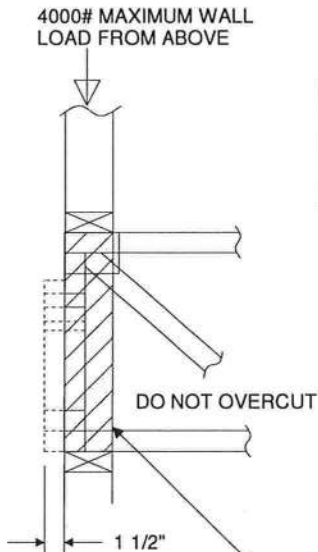
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS 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



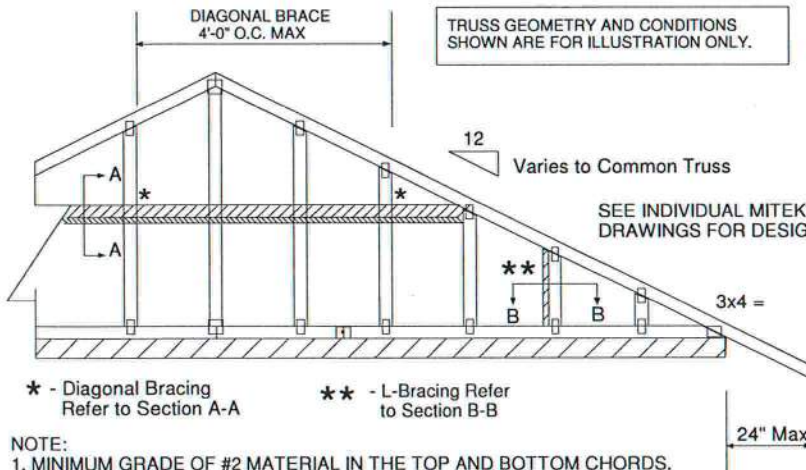
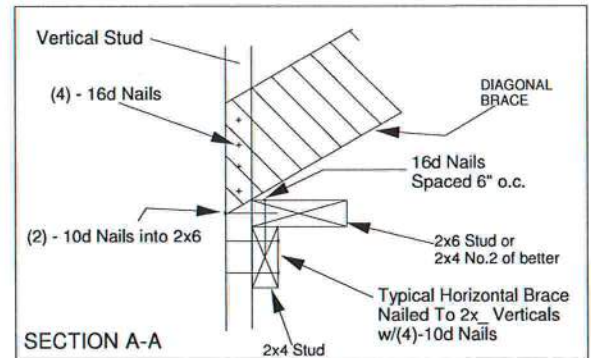
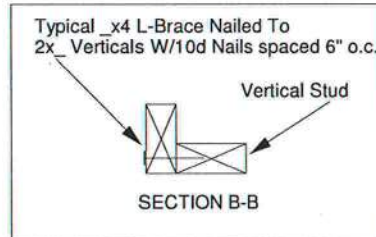
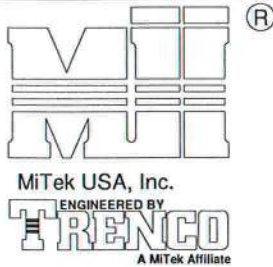
TRUSSES BUILT WITH 4x2 MEMBERS

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



## NOTE:

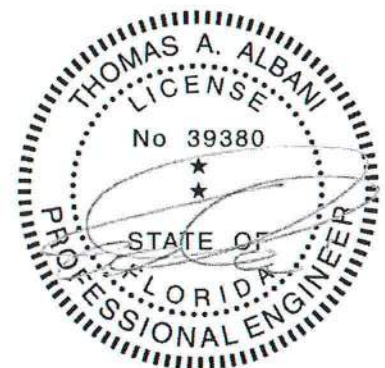
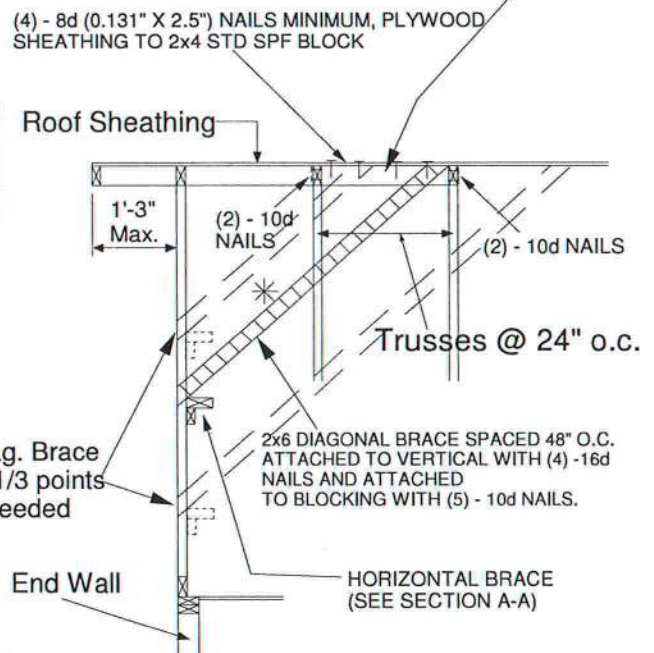
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF 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 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 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.



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 Date:

February 12, 2018



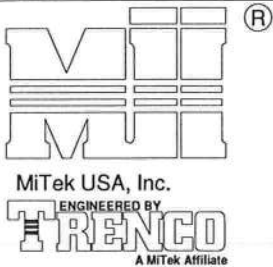
AUGUST 1, 2016

## Standard Gable End Detail

MII-GE130-SP

MiTek USA, Inc.

Page 1 of 2

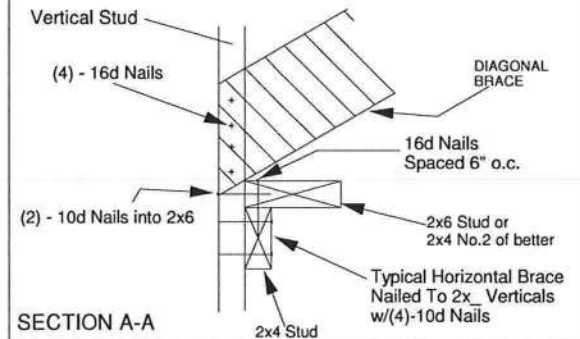


Typical  $\frac{1}{4}$  L-Brace Nailed To  
2x Verticals W/10d Nails spaced 6" o.c.

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.

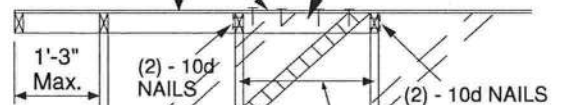


SECTION A-A

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



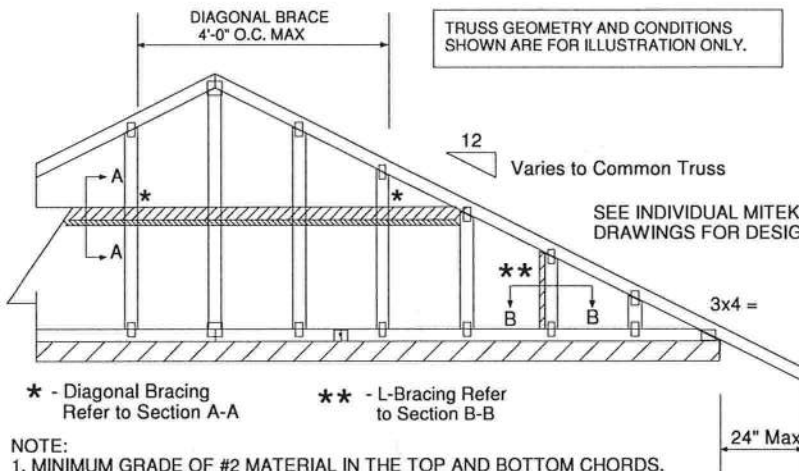
Trusses @ 24" o.c.

Diag. Brace  
at 1/3 points  
if needed

2x6 DIAGONAL BRACE SPACED 48" O.C.  
ATTACHED TO VERTICAL WITH (4) - 16d  
NAILS AND ATTACHED  
TO BLOCKING WITH (5) - 10d NAILS.

End Wall

HORIZONTAL BRACE  
(SEE SECTION A-A)



\* - Diagonal Bracing  
Refer to Section A-A

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

## NOTE:

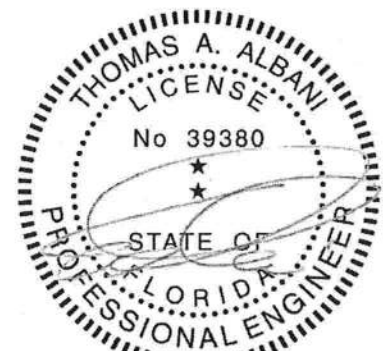
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF 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.	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 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 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.



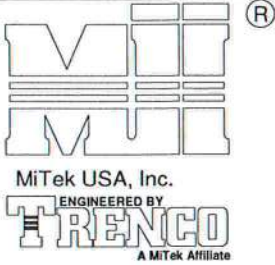
Thomas A. Albani PE No. 39380  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018

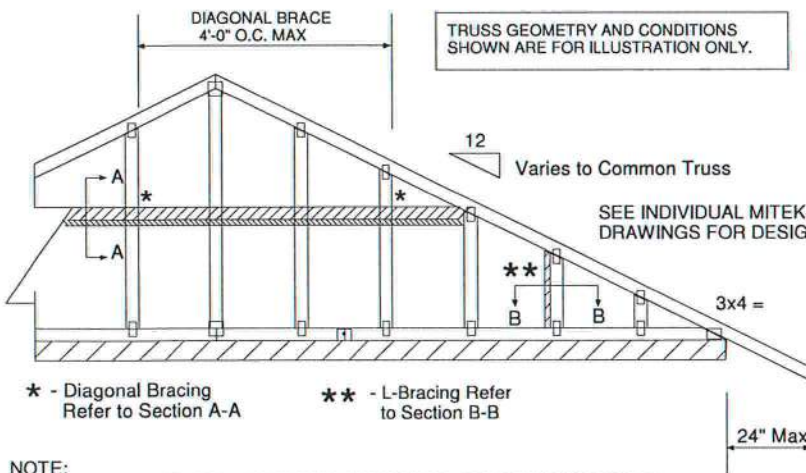
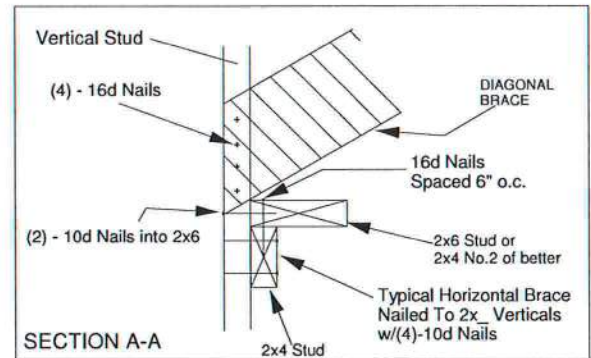
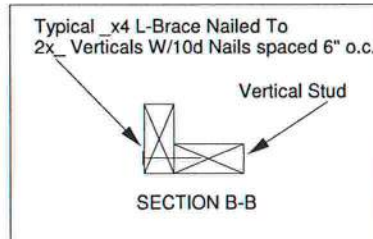
JANUARY 6, 2017

## Standard Gable End Detail

MII-GE140-001



MiTek USA, Inc. Page 1 of 2

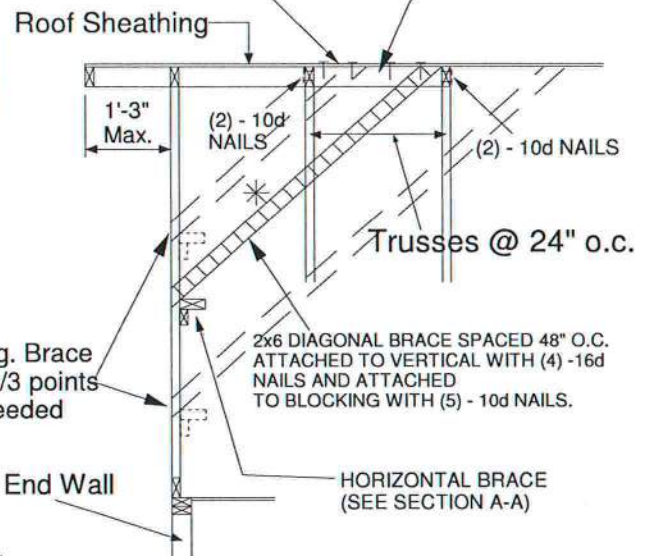


## NOTE:

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

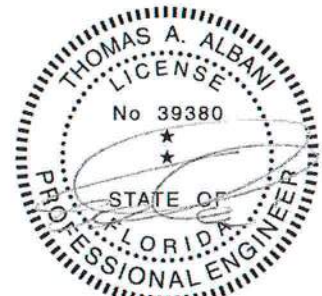


Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length				
2x4 DF/SPF Std/Stud	12" O.C.	3-10-1	3-11-7	5-7-2	7-8-2	11-6-4
2x4 DF/SPF Std/Stud	16" O.C.	3-3-14	3-5-1	4-10-2	6-7-13	9-11-11
2x4 DF/SPF Std/Stud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

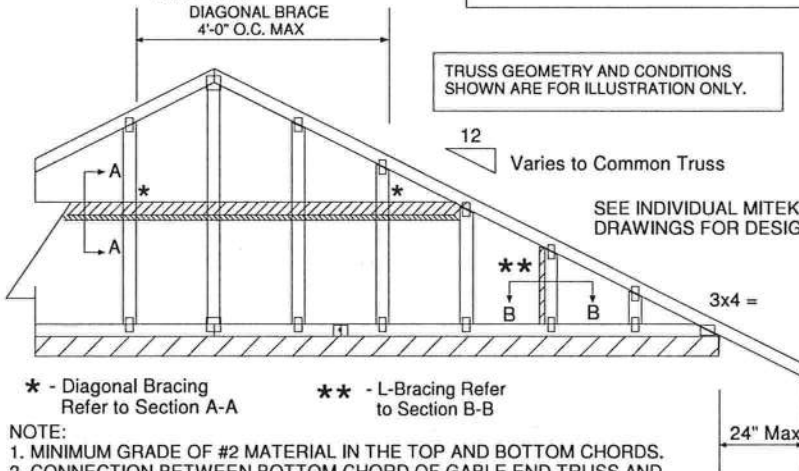
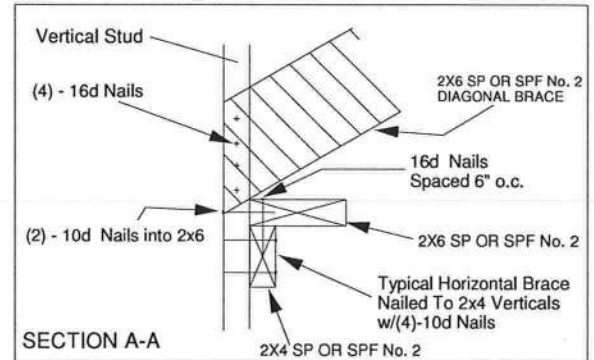
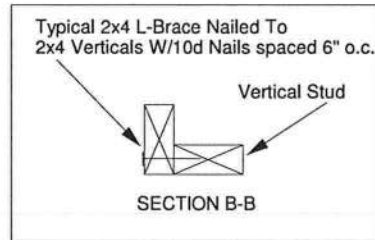
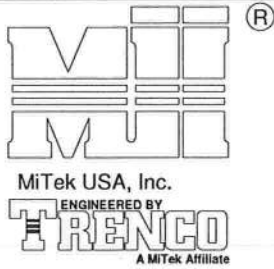
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.  
CONNECTION OF BRACING IS BASED ON MWFRS.



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Date:

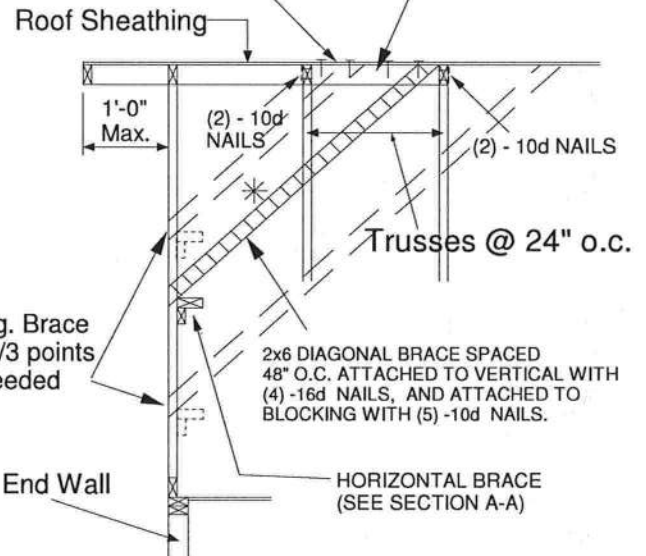
January 19, 2018





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



## 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.



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Date:

February 12, 2018

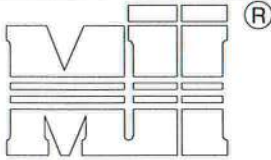


AUGUST 1, 2016

## 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. MAX

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

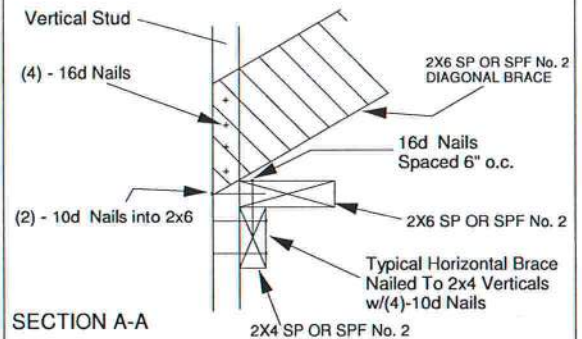
Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS  
SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss

SEE INDIVIDUAL MITEK ENGINEERING  
DRAWINGS FOR DESIGN CRITERIA



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.

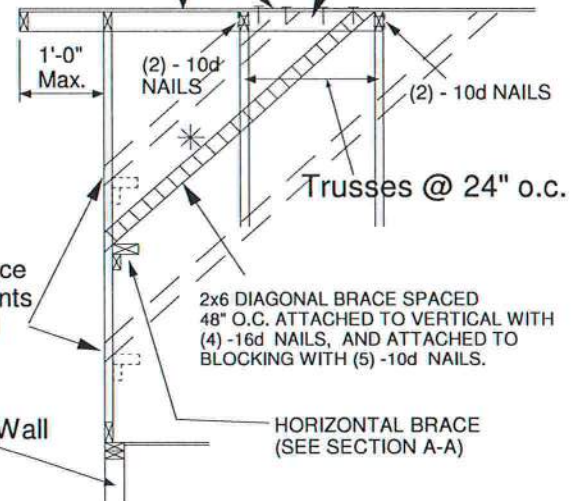
(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

Diag. Brace at 1/3 points if needed

End Wall

HORIZONTAL BRACE  
(SEE SECTION A-A)



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

## NOTE:

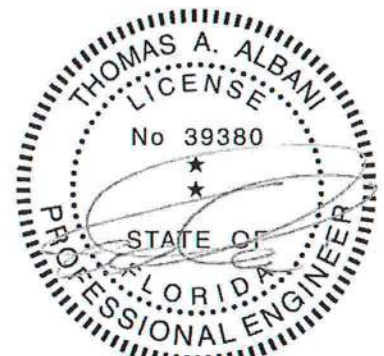
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF 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 I-braces attached to both edges. Fasten T and I 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 I braces must be 2x4 SPF No. 2 or SP No. 2.

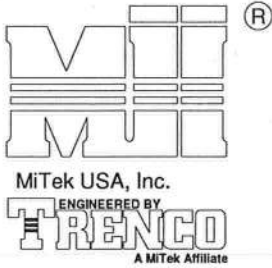
MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D  
ASCE 7-10 180 MPH  
DURATION OF LOAD INCREASE : 1.60

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



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Date:

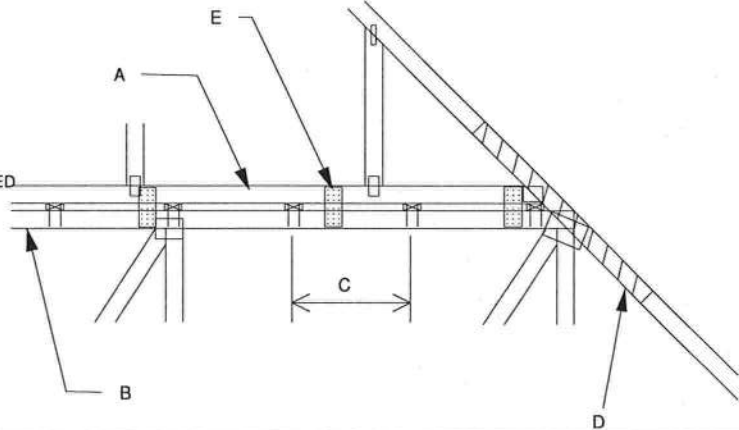
February 12, 2018



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  
 TRANSFERRING DRAG LOADS (SHEAR TRUSSES).  
 ADDITIONAL CONSIDERATIONS BY BUILDING  
 ENGINEER/DESIGNER ARE REQUIRED.

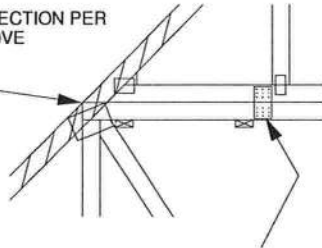
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. 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)



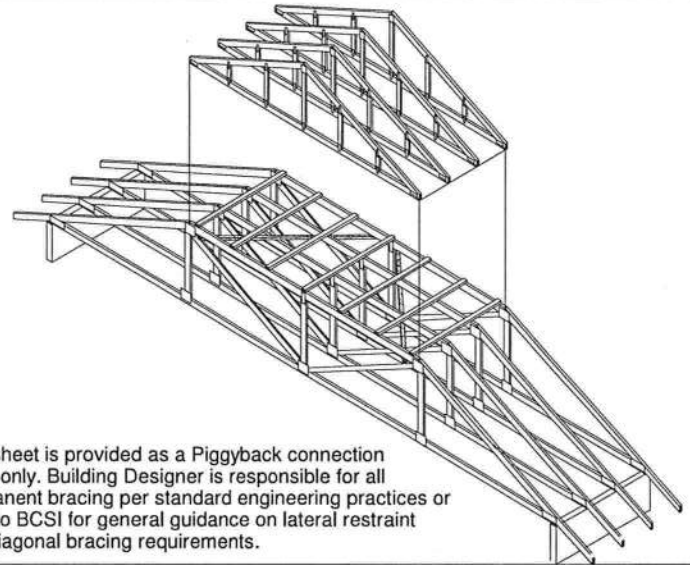
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

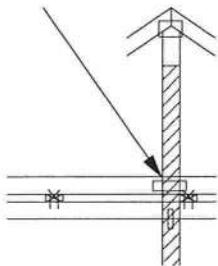


FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) (0.131" X 1.5") PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



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.



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February 12, 2018

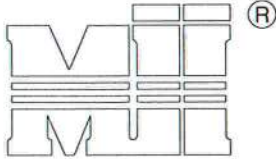


AUGUST 1, 2016

# STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

MII-PIGGY-ALT  
7-10

MiTek USA, Inc. Page 1 of 1



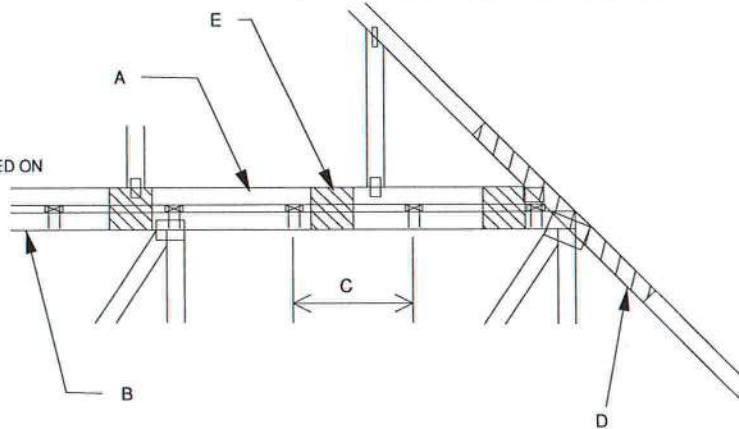
MiTek USA, Inc.



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.

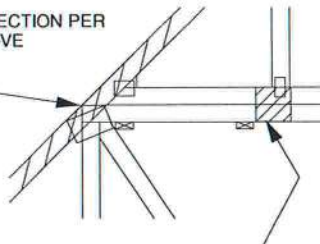
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. 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)



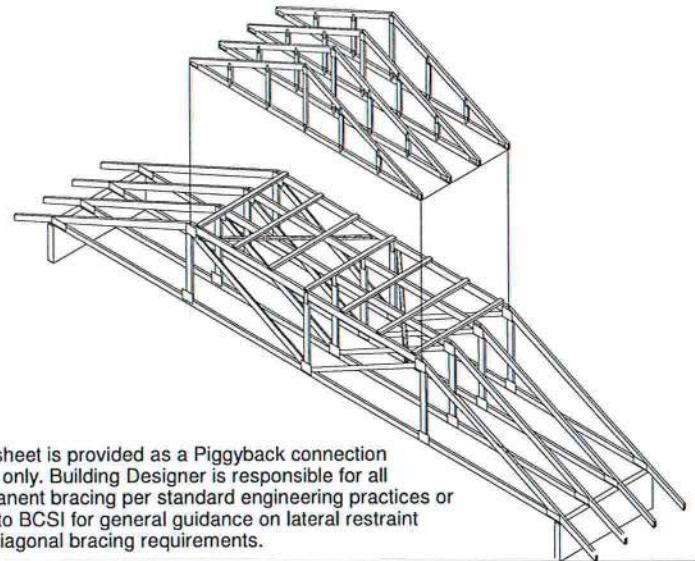
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

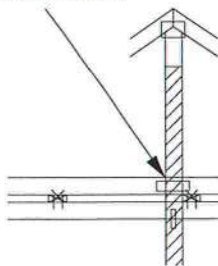


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



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

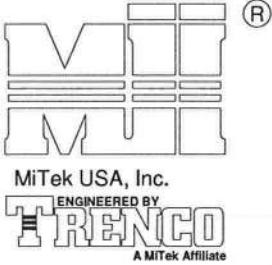


AUGUST 1, 2016

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

MII-REP01A1

MiTek USA, Inc. Page 1 of 1



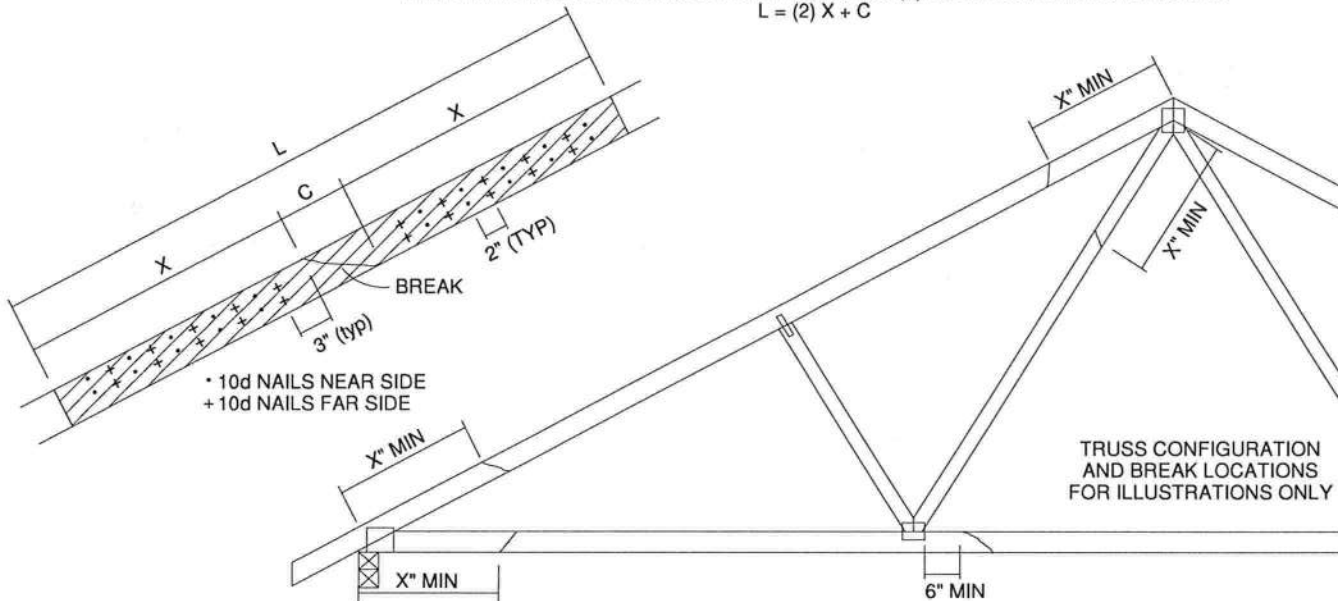
TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125	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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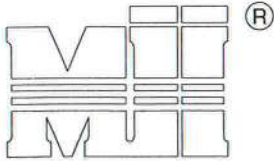
AUGUST 1, 2016

## LATERAL TOE-NAIL DETAIL

MII-TOENAIL\_SP

MiTek USA, Inc.

Page 1 of 1



MiTek USA, Inc.

ENGINEERED BY  
**TRENCO**  
 A MiTek Affiliate

## 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

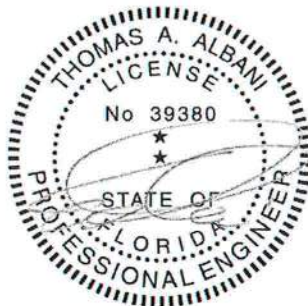
VALUES SHOWN ARE CAPACITY PER TOE-NAIL.  
 APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

## EXAMPLE:

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

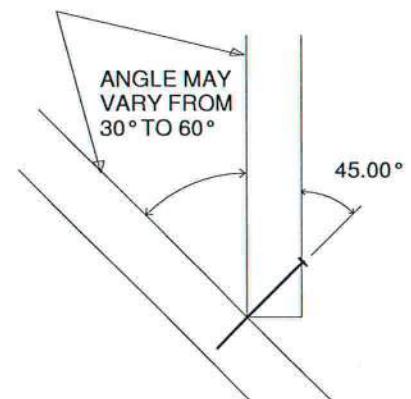
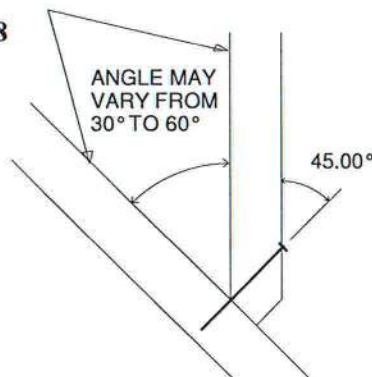
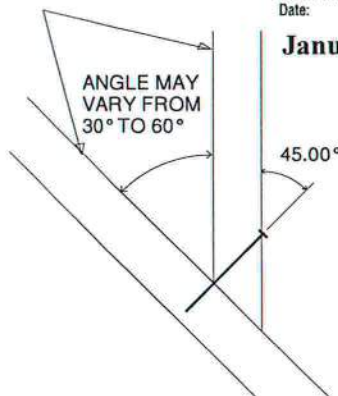
For load duration increase of 1.15:

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

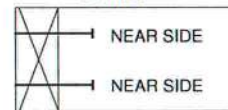


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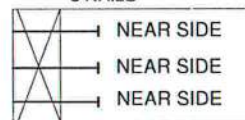
January 19, 2018



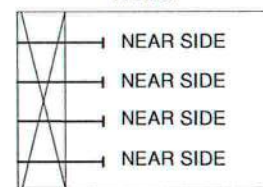
SIDE VIEW  
 (2x3)  
 2 NAILS

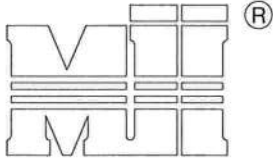


SIDE VIEW  
 (2x4)  
 3 NAILS



SIDE VIEW  
 (2x6)  
 4 NAILS



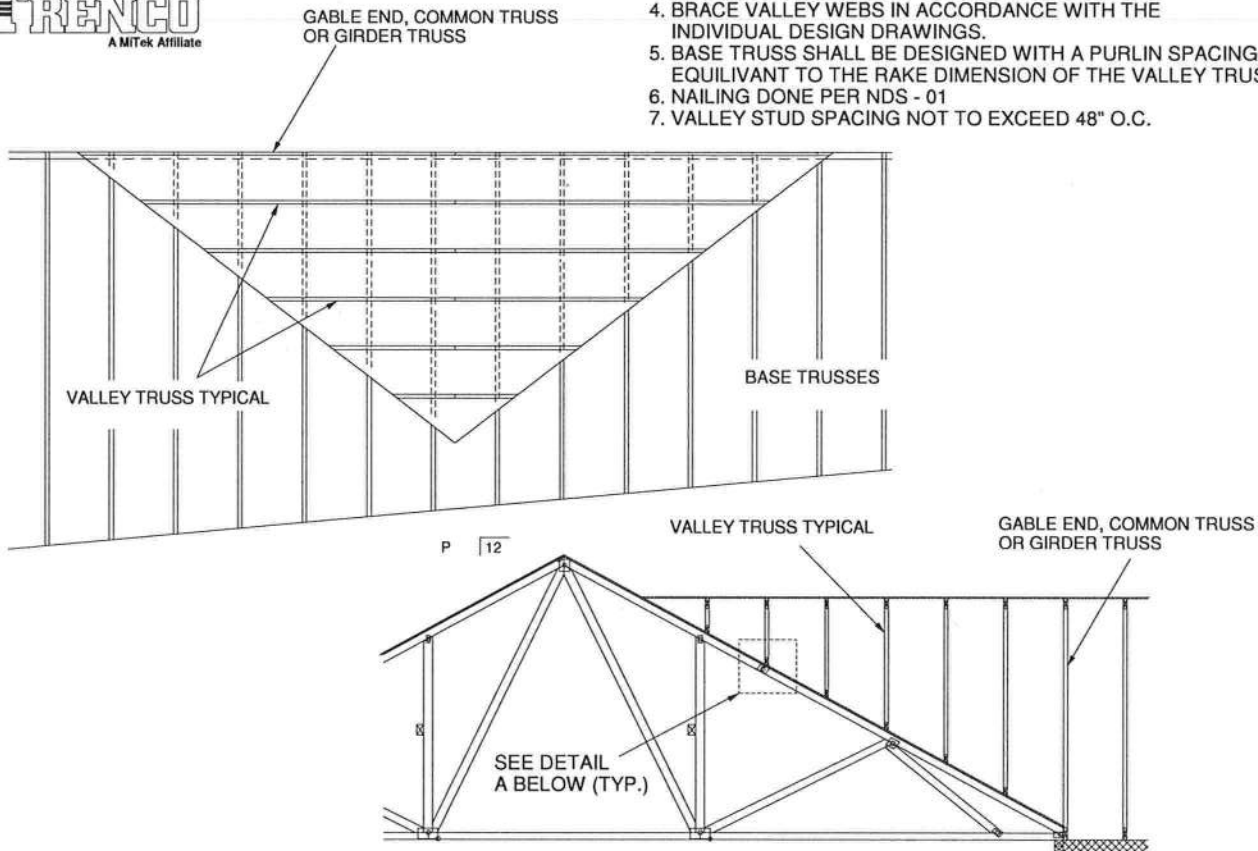


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## GENERAL SPECIFICATIONS

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.

ATTACH 2x4 CONTINUOUS NO.2 SP  
TO THE ROOF W/ TWO USP WS3 (1/4" X 3")  
WOOD SCREWS INTO EACH BASE TRUSS.

DETAIL A  
(NO SHEATHING)  
N.T.S.

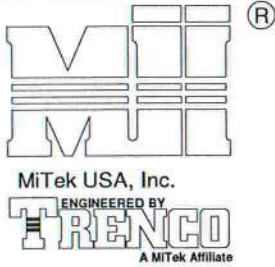
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C.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



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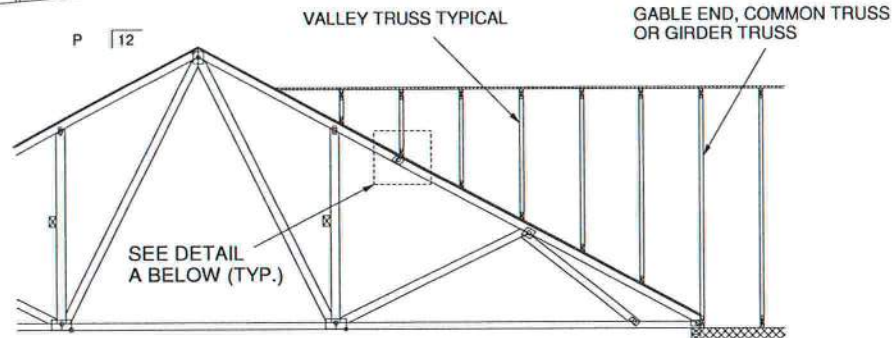
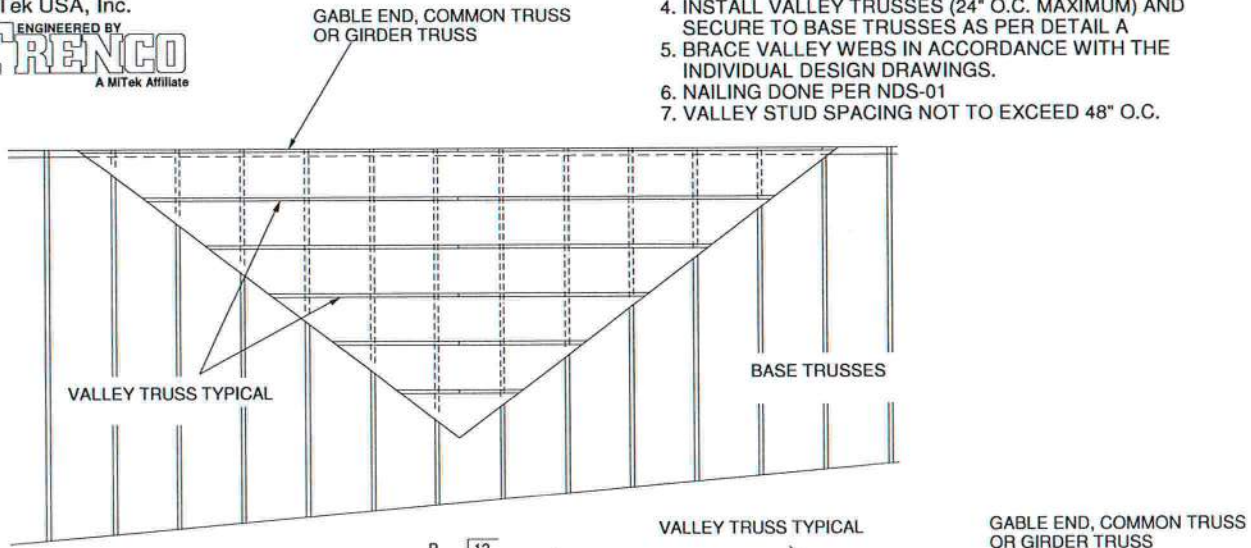
January 19, 2018



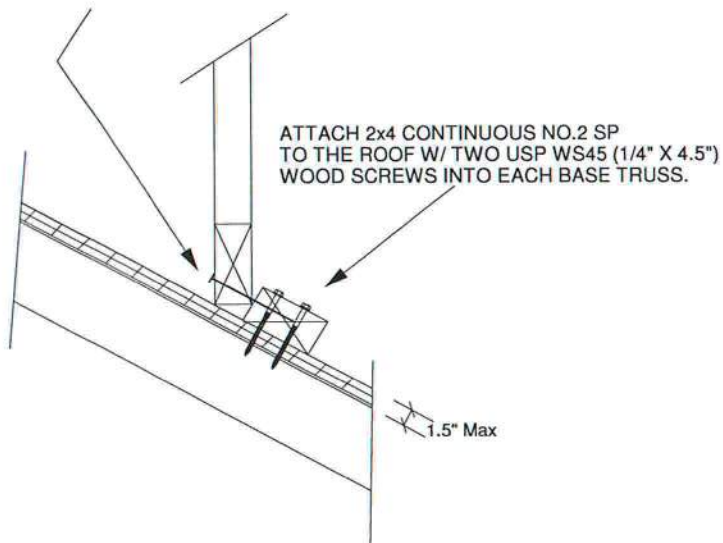


## GENERAL SPECIFICATIONS

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.

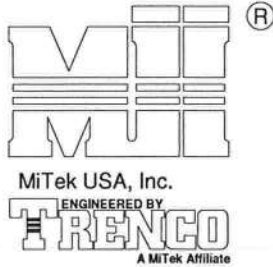


WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
WIND DESIGN PER ASCE 7-10 160 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12  
CATEGORY II BUILDING  
EXPOSURE C  
WIND DURATION OF LOAD INCREASE : 1.60  
MAX TOP CHORD TOTAL LOAD = 50 PSF  
MAX SPACING = 24" O.C.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



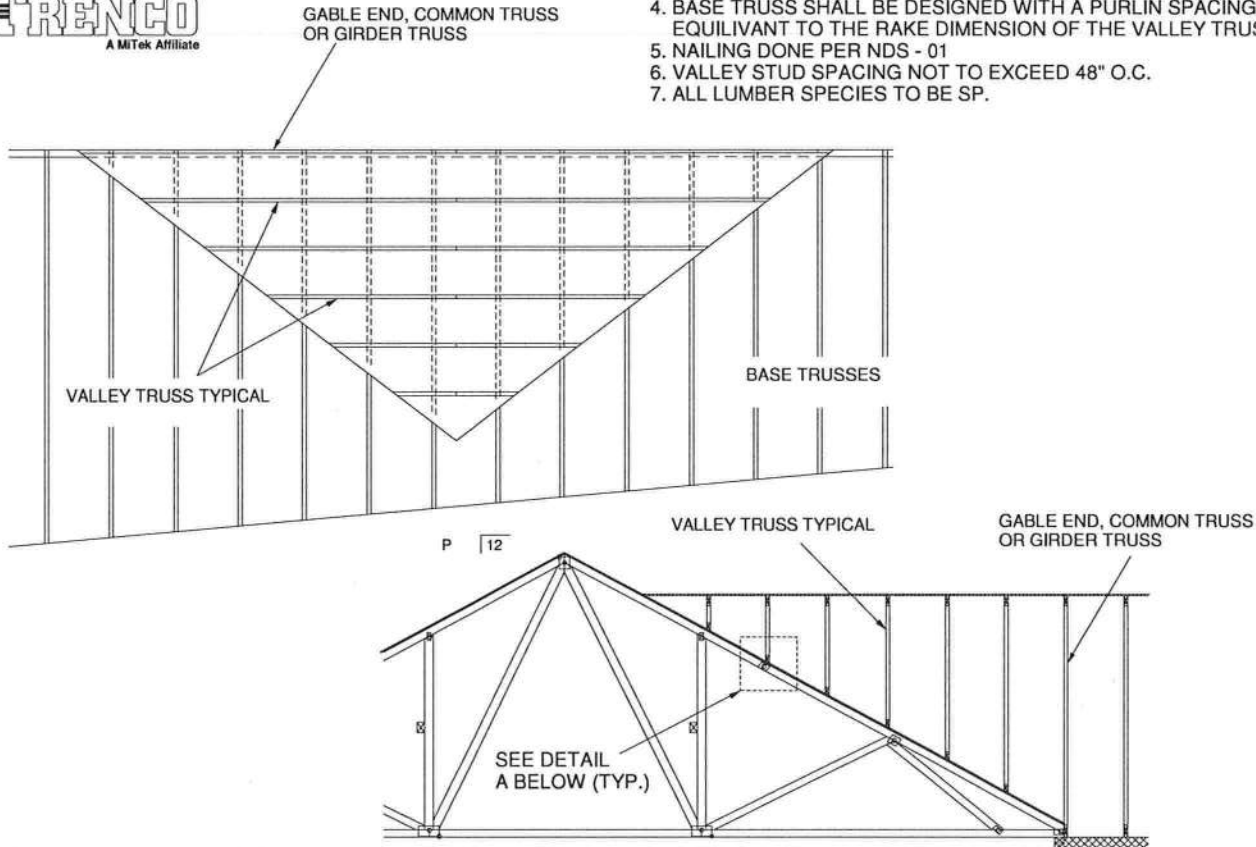
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Date:

February 12, 2018

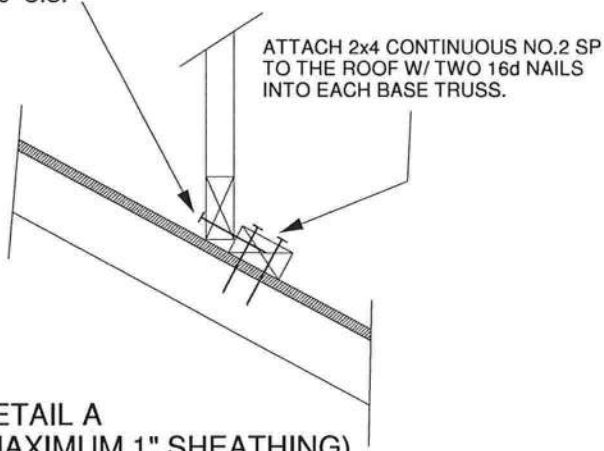


## GENERAL SPECIFICATIONS

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.



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

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

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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Date:

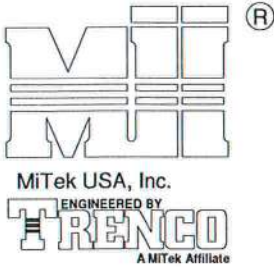
February 12, 2018

AUGUST 1, 2016

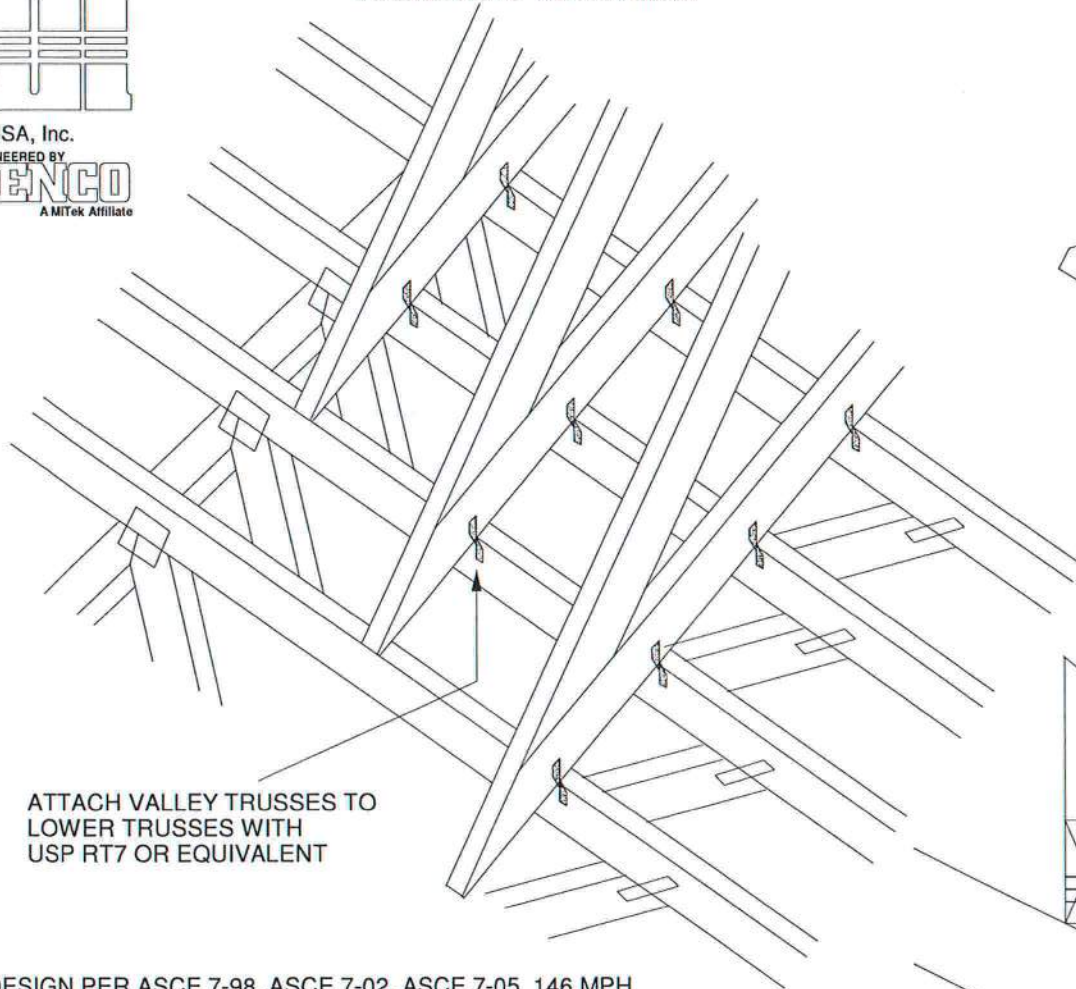
TRUSSED VALLEY SET DETAIL  
(HIGH WIND VELOCITY)

MII-VALLEY

MiTek USA, Inc. Page 1 of 1



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



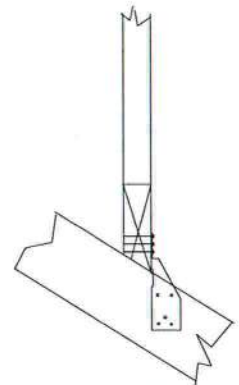
ATTACH VALLEY TRUSSES TO  
LOWER TRUSSES WITH  
USP RT7 OR EQUIVALENT

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)

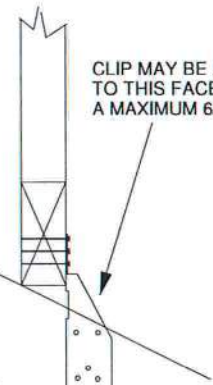
SUPPORTING TRUSSES DIRECTLY UNDER  
VALLEY TRUSSES MUST BE DESIGNED  
WITH A MAXIMUM UNBRACED LENGTH OF  
2'-10" ON AFFECTED TOP CHORDS.

NOTES:

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

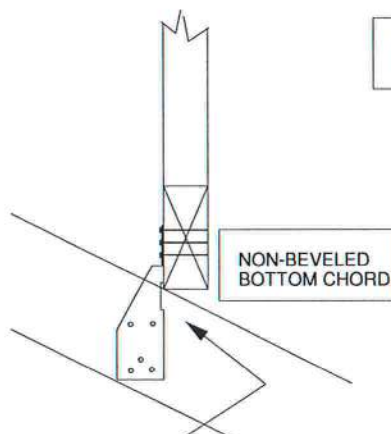


FOR BEVELED BOTTOM  
CHORD, CLIP MAY BE  
APPLIED TO EITHER FACE



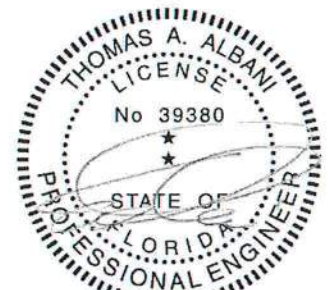
CLIP MAY BE APPLIED  
TO THIS FACE UP TO  
A MAXIMUM 6/12 PITCH

NON-BEVELED  
BOTTOM CHORD



NON-BEVELED  
BOTTOM CHORD

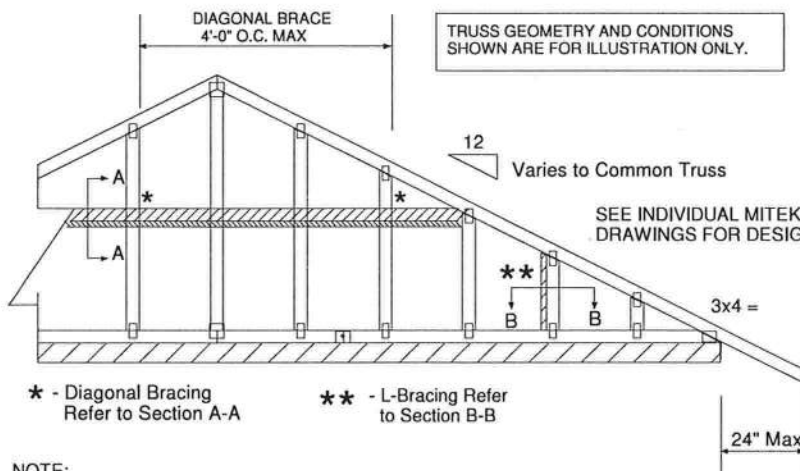
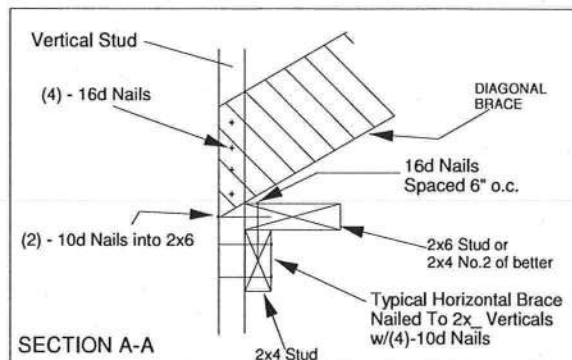
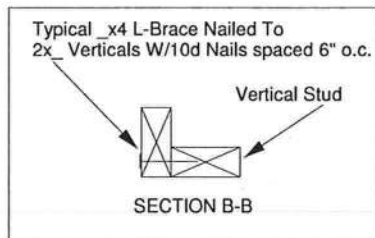
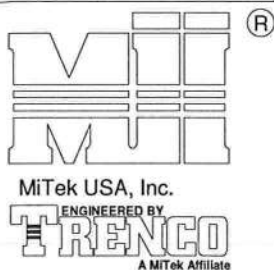
CLIP MUST BE APPLIED  
TO THIS FACE WHEN  
PITCH EXCEEDS 6/12.  
(MAXIMUM 12/12 PITCH)



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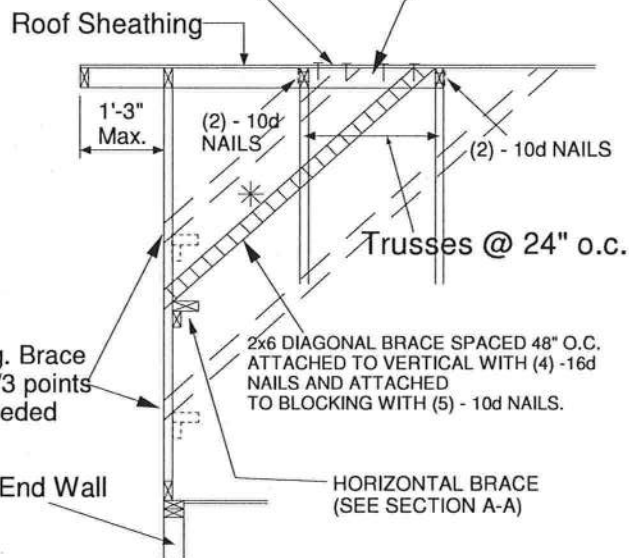


## NOTE:

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

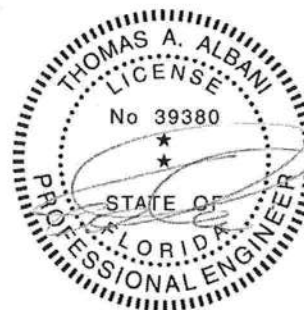


Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
		Maximum Stud Length			
2x4 SP No 3/Stud	12" O.C.	3-11-3	6-8-0	7-2-14	11-9-10
2x4 SP No 3/Stud	16" O.C.	3-6-14	5-9-5	7-1-13	10-8-11
2x4 SP No 3/Stud	24" O.C.	3-1-8	4-8-9	6-2-15	9-4-7

- \* 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.

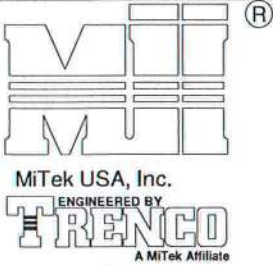
MAXIMUM WIND SPEED = 146 MPH  
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE B or C  
ASCE 7-98, ASCE 7-02, ASCE 7-05  
DURATION OF LOAD INCREASE : 1.60

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

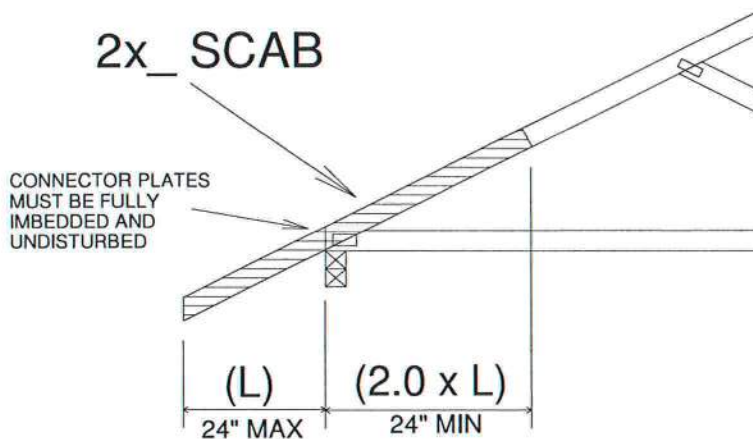
PITCH: 4/12 - 12/12

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.

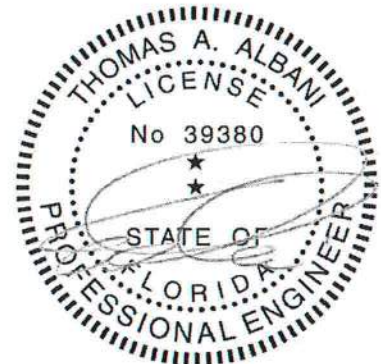


## IMPORTANT

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.

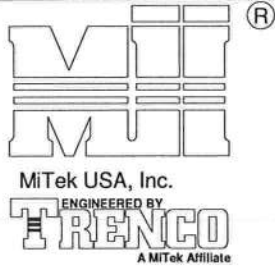
Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN  
FOR PLATE SIZES AND LUMBER GRADES



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Date:

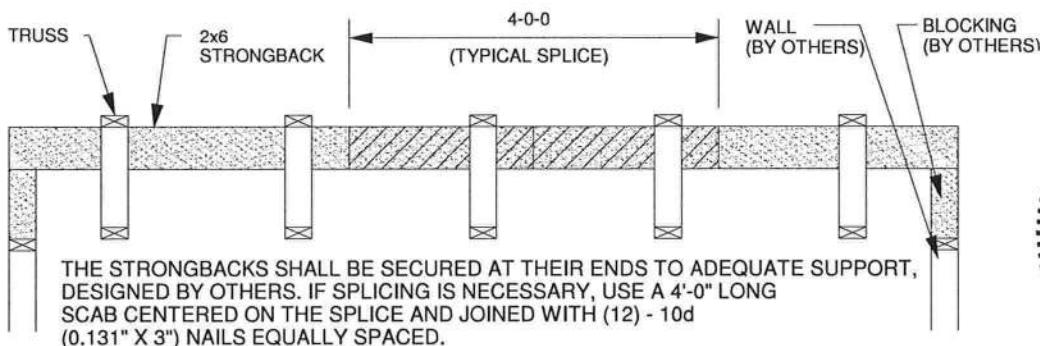
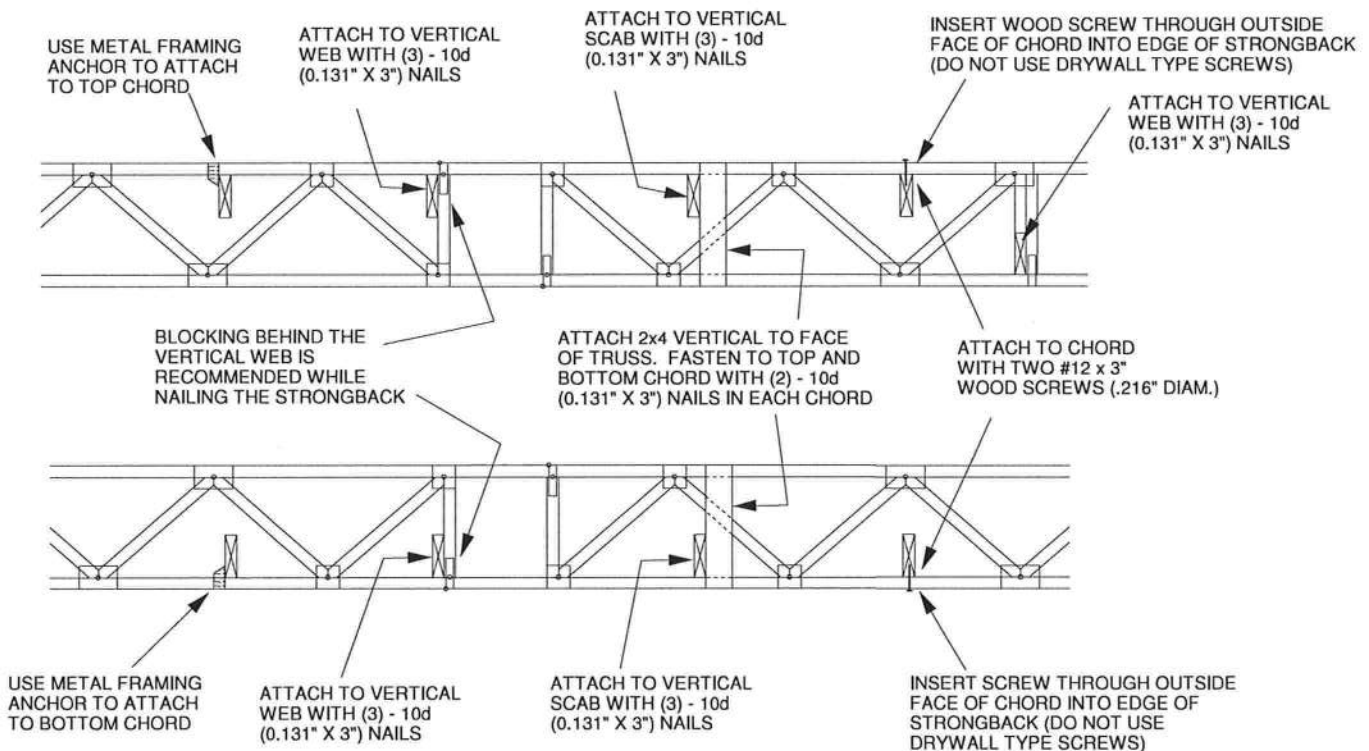
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TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

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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