

13

44783



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

RE: 3163304 - GIEBEIG - LOT 8 CW

**MiTek USA, Inc.**

6904 Parke East Blvd.  
Tampa, FL 33610-4115

**Site Information:**

Customer Info: GIEBEIG CONST. Project Name: Spec Hse Model: 1595  
Lot/Block: 8 Subdivision: Crosswinds  
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: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5  
Wind Code: ASCE 7-16 Wind Speed: 130 mph  
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 25 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	T27693417	CJ01	5/12/22	23	T27693439	T14	5/12/22
2	T27693418	CJ03	5/12/22	24	T27693440	T15	5/12/22
3	T27693419	CJ05	5/12/22	25	T27693441	T16	5/12/22
4	T27693420	CJ07	5/12/22				
5	T27693421	EJ01	5/12/22				
6	T27693422	EJ02	5/12/22				
7	T27693423	HJ10	5/12/22				
8	T27693424	HJ11	5/12/22				
9	T27693425	T01	5/12/22				
10	T27693426	T01G	5/12/22				
11	T27693427	T02	5/12/22				
12	T27693428	T03	5/12/22				
13	T27693429	T04	5/12/22				
14	T27693430	T05	5/12/22				
15	T27693431	T06	5/12/22				
16	T27693432	T07	5/12/22				
17	T27693433	T08	5/12/22				
18	T27693434	T09	5/12/22				
19	T27693435	T10	5/12/22				
20	T27693436	T11	5/12/22				
21	T27693437	T12	5/12/22				
22	T27693438	T13	5/12/22				



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-Lake City, FL.

Truss Design Engineer's Name: ORegan, Philip  
My license renewal date for the state of Florida is February 28, 2023.

**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.



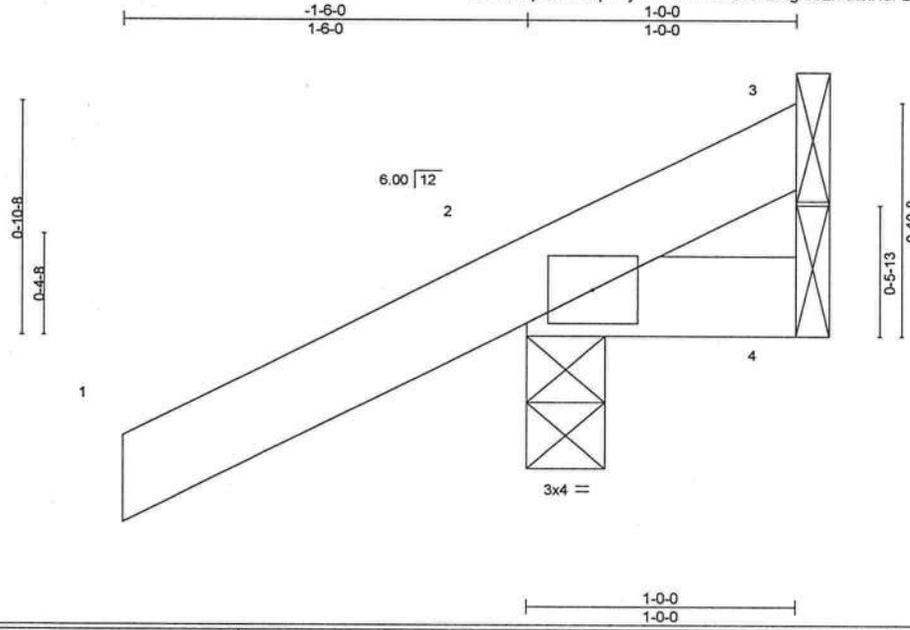
Philip J. O'Regan PE No. 58126  
MiTek USA, Inc. FL Cert 6634  
6904 Parke East Blvd. Tampa FL 33610  
Date:

May 12, 2022



Job 3163304	Truss CJ01	Truss Type Jack-Open	Qty 8	Ply 1	GIEBEIG - LOT 8 CW	T27693417
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:43 2022 Page 1  
 ID:MRUpuoKKMqHFlyM1PC4d7zYSsJ-Ecsgr9sEmddxHuFLMXSxB9YZ016JFluKrqy2m1zHY66



<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 0.14	Vert(LL)	0.00	7	>999	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.03	Vert(CT)	0.00	7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MP						
								Weight: 6 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=39(LC 12)  
 Max Uplift 3=6(LC 1), 2=67(LC 12), 4=19(LC 1)  
 Max Grav 3=7(LC 16), 2=179(LC 1), 4=18(LC 16)

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

**NOTES-**

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



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

May 12, 2022

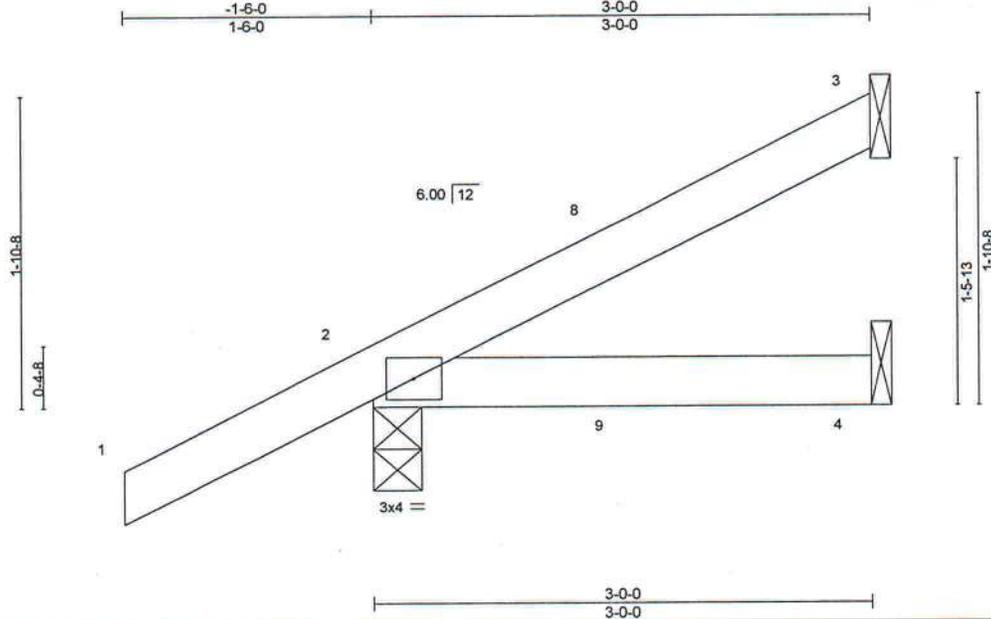
**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss CJ03	Truss Type Jack-Open	Qty 8	Ply 1	GIEBEIG - LOT 8 CW Job Reference (optional)	T27693418
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8,530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:44 2022 Page 1  
ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-ioQ22VtsXxlqv2qXwFzAjN5kmQRQ\_j8T4UibJUzHY65



<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 0.14	Vert(LL) 0.01	4-7	>999	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.10	Vert(CT) -0.01	4-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT) -0.00	3	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MP				Weight: 12 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 purins.  
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=73(LC 12)  
Max Uplift 3=-35(LC 12), 2=-58(LC 12), 4=-16(LC 9)  
Max Grav 3=60(LC 1), 2=210(LC 1), 4=50(LC 3)

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

**NOTES-**

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



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

May 12, 2022

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6904 Parke East Blvd.  
Tampa, FL 36610

Job 3163304	Truss CJ05	Truss Type Jack-Open	Qty 8	Ply 1	GIEBEIG - LOT 8 CW	T27693419
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Builders FirstSource (Lake City,FL),

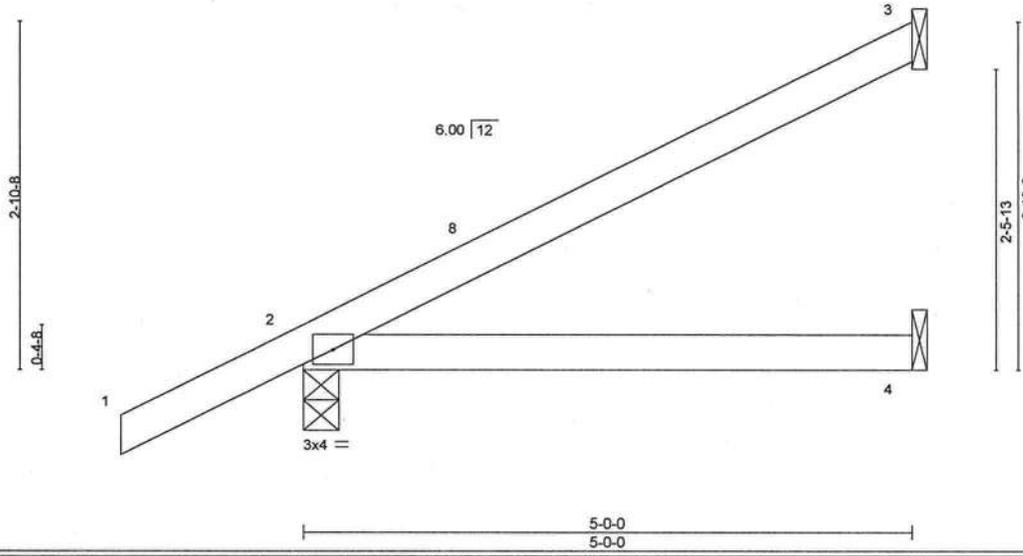
Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:44 2022 Page 1

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Scale = 1:18.2



<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 0.28	Vert(LL) 0.03 4-7 >999 240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.24	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 FBC2020/TPI2014	Matrix-MP		Weight: 18 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=107(LC 12)  
Max Uplift 3=-67(LC 12), 2=-65(LC 12)  
Max Grav 3=113(LC 1), 2=276(LC 1), 4=88(LC 3)

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

**NOTES-**

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



Philip J. O'Regan PE No.58126  
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6904 Parke East Blvd. Tampa FL 33610  
Date:

May 12, 2022

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6904 Parke East Blvd.  
Tampa, FL 33610

Job 3163304	Truss CJ07	Truss Type Jack-Open	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693420
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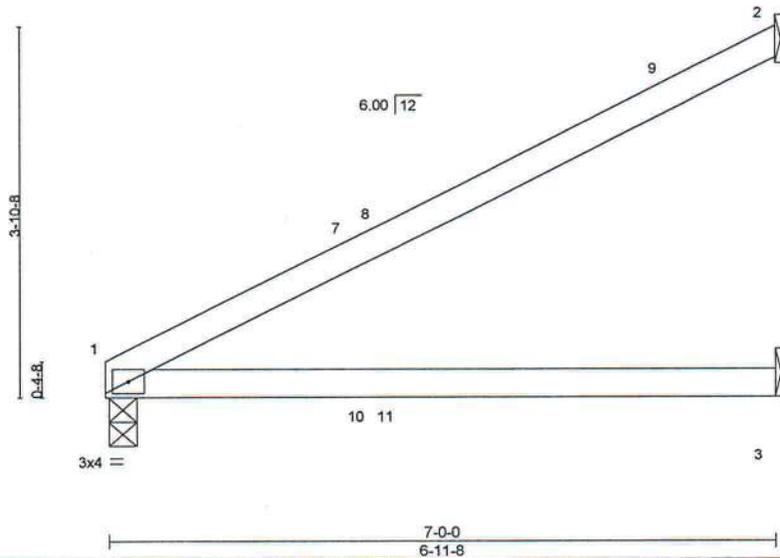
Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:45 2022 Page 1

ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-A?\_QGruVIEtFXCPkTyUPGadmQqc7jCOdJ8R8rwzHY64

7-0-0  
7-0-0

Scale = 1:23.0



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.72	Vert(LL)	0.32	3-6	>263	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.71	Vert(CT)	0.27	3-6	>312		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	-0.01	2	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						
								Weight: 22 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) 1=0-3-8, 2=Mechanical, 3=Mechanical  
Max Horz 1=114(LC 12)  
Max Uplift 1=-61(LC 9), 2=-88(LC 12), 3=-41(LC 9)  
Max Grav 1=257(LC 1), 2=168(LC 1), 3=127(LC 3)

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

**NOTES-**

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



Phillip J. O'Regan PE No.58126  
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Date:

May 12, 2022

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

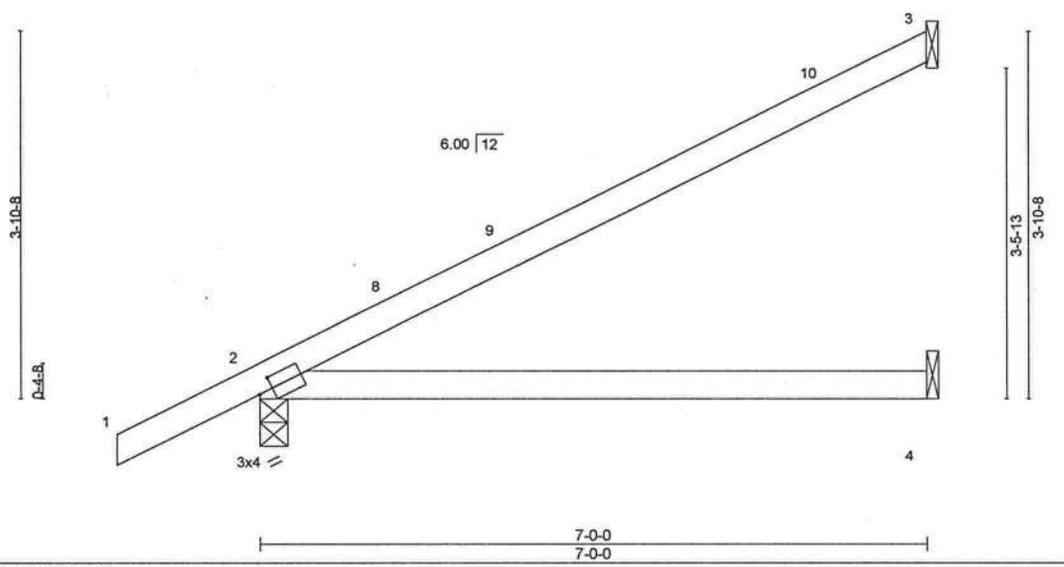
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6904 Parke East Blvd.  
Tampa, FL 33610

Job 3163304	Truss EJ01	Truss Type Jack-Partial	Qty 26	Ply 1	GIEBEIG - LOT 8 CW	T27693421
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:46 2022 Page 1  
 ID:MRUpuoKMKmQHfYtM1PC4d7zYSsJ-eBXoTBv73Y?WBL\_w1g?epoAzBE?PSfdmYoBINMzHY63



Scale = 1:23.2

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

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 0.63	Vert(LL)	0.10	4-7	>794	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.51	Vert(CT)	-0.22	4-7	>385	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.01	2	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS						Weight: 25 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=137(LC 12)  
 Max Uplift 3=86(LC 12), 2=76(LC 12)  
 Max Grav 3=164(LC 1), 2=346(LC 1), 4=126(LC 3)

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

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



Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

May 12, 2022

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6904 Parke East Blvd.  
 Tampa, FL 33610

Job 3163304	Truss EJ02	Truss Type Jack-Partial	Qty 9	Ply 1	GIEBEIG - LOT 8 CW Job Reference (optional)	T27693422
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Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:47 2022 Page 1  
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Scale = 1:23.2

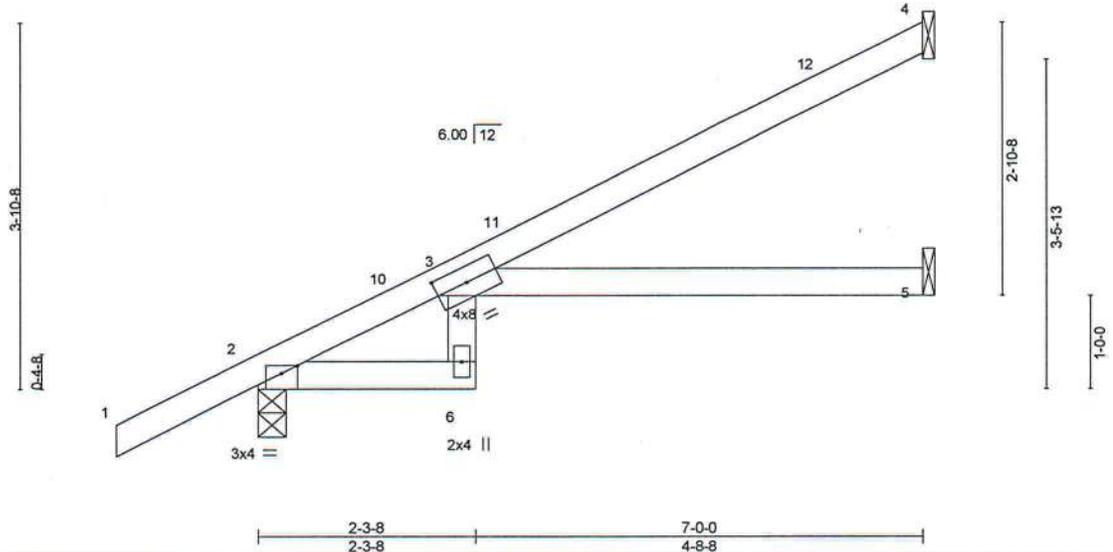


Plate Offsets (X,Y)--	[3:0-4-0,0-1-15]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.68	Vert(LL)	0.16	3-5	>529	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.58	Vert(CT)	-0.26	3-5	>315		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.13	5	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MR					Weight: 26 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 *Except* 3-6: 2x4 SP No.3		BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS.** (size) 4=Mechanical, 2=0-3-8, 5=Mechanical  
 Max Horz 2=137(LC 12)  
 Max Uplift 4=72(LC 12), 2=76(LC 12), 5=12(LC 12)  
 Max Grav 4=151(LC 1), 2=347(LC 1), 5=118(LC 3)

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

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

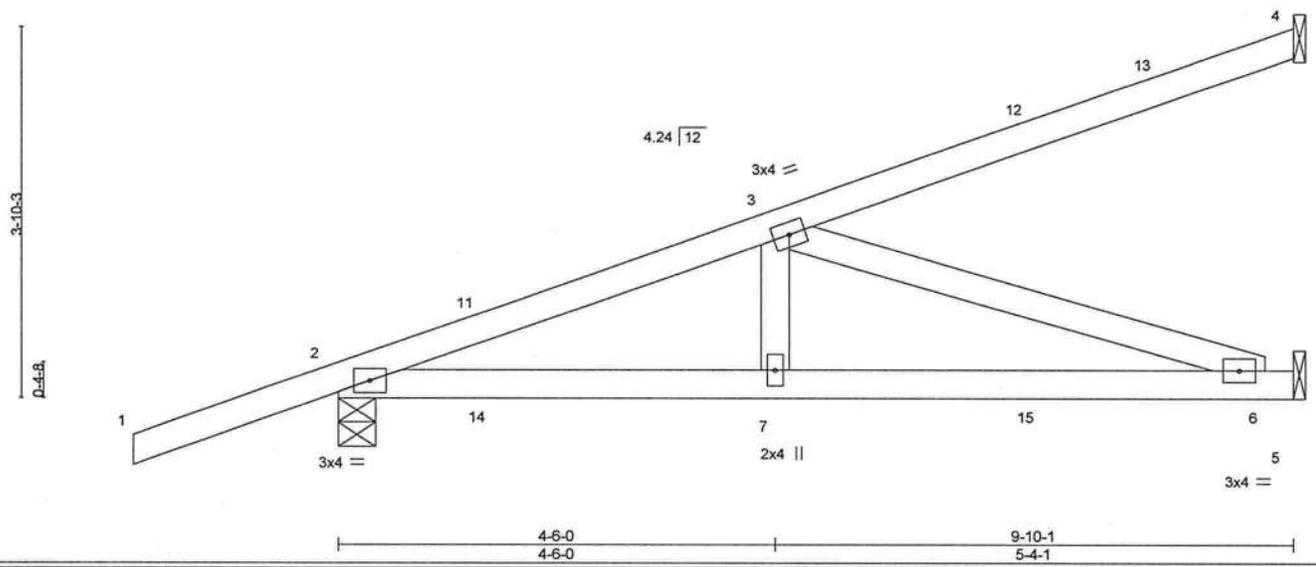


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 Date: May 12, 2022

<p><b>WARNING</b> - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.          Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	 6904 Parke East Blvd. Tampa, FL 36610
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Job 3163304	Truss HJ10	Truss Type Diagonal Hip Girder	Qty 3	Ply 1	GIEBEIG - LOT 8 CW	T27693423
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8 530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:48 2022 Page 1  
 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-aafZutwNb9FEO7I9526uDFIn2gHwTG376goSFzHY61



Scale = 1:22.8

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 0.58	Vert(LL) 0.06 6-7 >999 240	MT20 244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.62	Vert(CT) -0.12 6-7 >992 180	
BCLL 0.0 *	Rep Stress Incr NO	WB 0.44	Horz(CT) 0.01 5 n/a n/a	
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS		Weight: 43 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 9-2-14 oc bracing.
WEBS 2x4 SP No.3	

**REACTIONS.** (size) 4=Mechanical, 2=0-4-9, 5=Mechanical  
 Max Horz 2=149(LC 22)  
 Max Uplift 4=-77(LC 4), 2=-298(LC 4), 5=-142(LC 4)  
 Max Grav 4=149(LC 1), 2=527(LC 1), 5=299(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-799/340  
 BOT CHORD 2-7=-395/729, 6-7=-395/729  
 WEBS 3-7=-60/281, 3-6=-768/416

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 5) Refer to girder(s) for truss to truss connections.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 2=298, 5=142.
  - 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 73 lb up at 1-6-1, 59 lb down and 73 lb up at 1-6-1, 22 lb down and 38 lb up at 4-4-0, 22 lb down and 38 lb up at 4-4-0, and 43 lb down and 78 lb up at 7-1-15, and 43 lb down and 78 lb up at 7-1-15 on top chord, and 41 lb down and 43 lb up at 1-6-1, 41 lb down and 43 lb up at 1-6-1, 19 lb down and 24 lb up at 4-4-0, 19 lb down and 24 lb up at 4-4-0, and 64 lb down at 7-1-15, and 64 lb down at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
  - 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
 1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-4=-54, 5-8=-20  
 Concentrated Loads (lb)  
 Vert: 7=-6(F=-3, B=3) 12=-73(F=-36, B=36) 15=-59(F=-29, B=29)

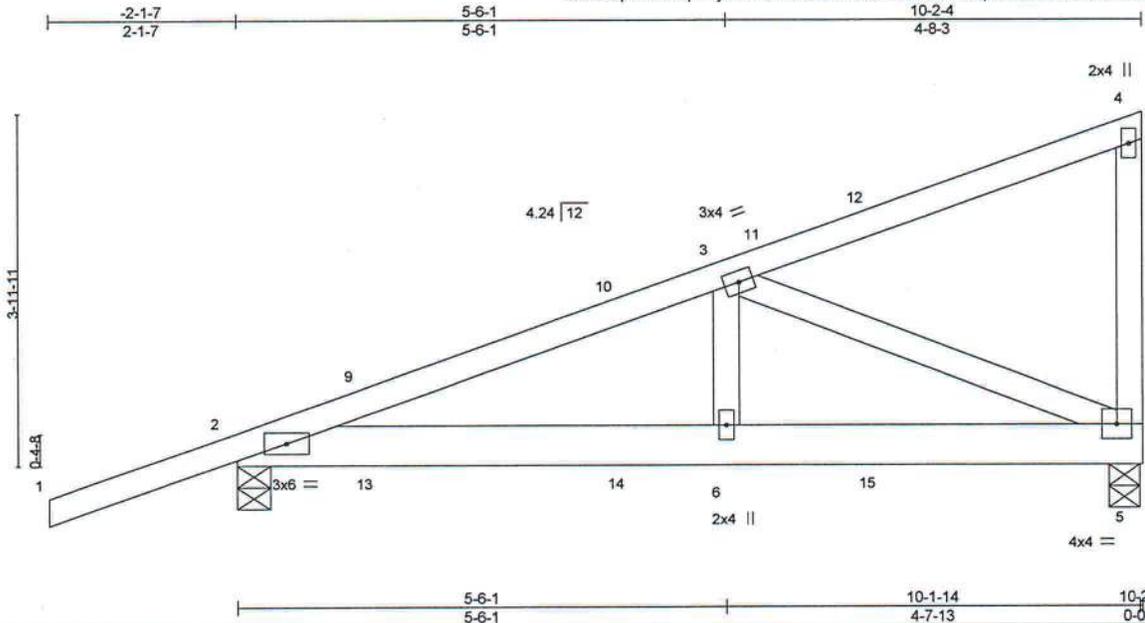


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 Date:

May 12, 2022

Job 3163304	Truss HJ11	Truss Type Roof Special Girder	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693424
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:49 2022 Page 1  
 ID:MRUpuoKKMqHFlyM1PC4d7zYSsJ-2mDx5Dx7MTN5?piVioZLQoYnR6mfKDEmPM\_hzHY60



<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.31	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.22	Vert(LL) 0.02 6-8 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.32	Vert(CT) -0.03 6-8 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.01 5 n/a n/a		
	Code FBC2020/TPI2014			Weight: 57 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 6-0-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 2=0-4-9, 5=0-4-3  
 Max Horz 2=157(LC 4)  
 Max Uplift 2=-304(LC 4), 5=405(LC 4)  
 Max Grav 2=539(LC 1), 5=782(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-727/297, 4-5=-373/209  
 BOT CHORD 2-6=-351/656, 5-6=-351/656  
 WEBS 3-6=-65/278, 3-5=-693/371

- NOTES-**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 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) 2=304, 5=405.
  - 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 59 lb down and 73 lb up at 1-6-1, 59 lb down and 73 lb up at 1-6-1, 22 lb down and 38 lb up at 4-4-0, 22 lb down and 38 lb up at 4-4-0, 43 lb down and 78 lb up at 7-1-15, 43 lb down and 78 lb up at 7-1-15, and 124 lb down and 92 lb up at 10-0-8, and 128 lb down and 94 lb up at 10-0-8 on top chord, and 41 lb down and 43 lb up at 1-6-1, 41 lb down and 43 lb up at 1-6-1, 19 lb down and 24 lb up at 4-4-0, 19 lb down and 24 lb up at 4-4-0, 64 lb down at 7-1-15, and 64 lb down at 7-1-15, and 98 lb down and 56 lb up at 10-0-8 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, 2-5=20  
 Concentrated Loads (lb)  
 Vert: 4=-252(F=-124, B=-128) 5=-74(B) 12=-73(F=-36, B=-36) 14=-6(F=-3, B=-3) 15=-59(F=-29, B=-29)



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 Date:

May 12, 2022

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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/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss T01	Truss Type Common	Qty 10	Ply 1	GIEBEIG - LOT 8 CW	T27693425
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:50 2022 Page 1  
 ID:MRUpuoKKMqHFlytM1PC4d7zYsSj-XynJJZyd7nVyzdHhGW4azelGMrGkOPMMSQ9vW7zHY6?  
 1-6-0 5-3-14 10-10-0 16-4-2 21-8-0 23-2-0  
 1-6-0 5-3-14 5-6-2 5-6-2 5-3-14 1-6-0

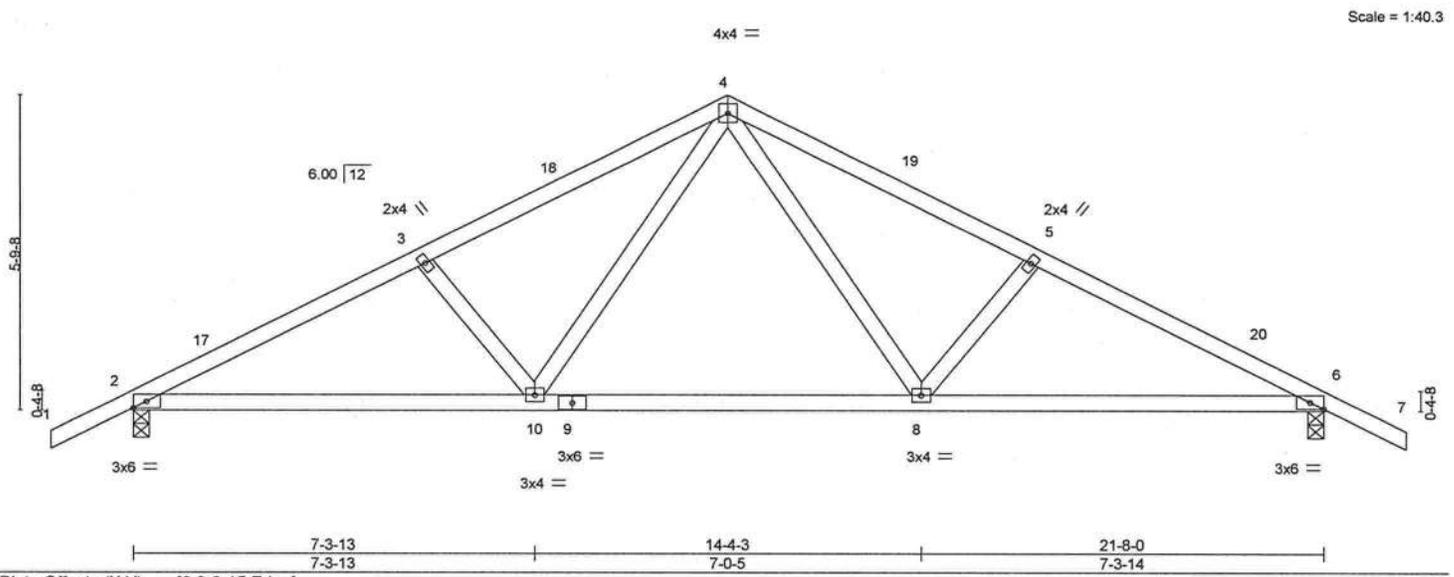


Plate Offsets (X,Y)- [6:0-2-15,Edge]

LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.45	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 1.00	Vert(LL) -0.19 8-10 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.27	Vert(CT) -0.38 8-10 >686 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.05 6 n/a n/a		
	Code FBC2020/TP12014			Weight: 102 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 4-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 9-3-2 oc bracing.

**REACTIONS.** (size) 2=0-3-8, 6=0-3-8  
 Max Horz 2=-92(LC 13)  
 Max Uplift 2=-256(LC 12), 6=-256(LC 13)  
 Max Grav 2=1093(LC 1), 6=1093(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1891/520, 3-4=-1724/510, 4-5=-1724/510, 5-6=-1891/520  
 BOT CHORD 2-10=-393/1643, 8-10=-193/1099, 6-8=-393/1643  
 WEBS 4-8=-193/717, 5-8=-277/176, 4-10=-193/717, 3-10=-277/176

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-10-0, Exterior(2R) 10-10-0 to 13-10-0, Interior(1) 13-10-0 to 23-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 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=256, 6=256.
  - 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, 10-11=-20, 8-10=-80(F=-60), 8-14=-20

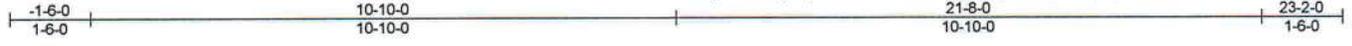


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 Date:

May 12, 2022

Job 3163304	Truss T01G	Truss Type Common Supported Gable	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693426
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:41:51 2022 Page 1  
 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-79LhWuyGt4dpF7stqDbbWrtx8Fro7w2Vh4Ut2azHY6\_



Scale = 1:40.8

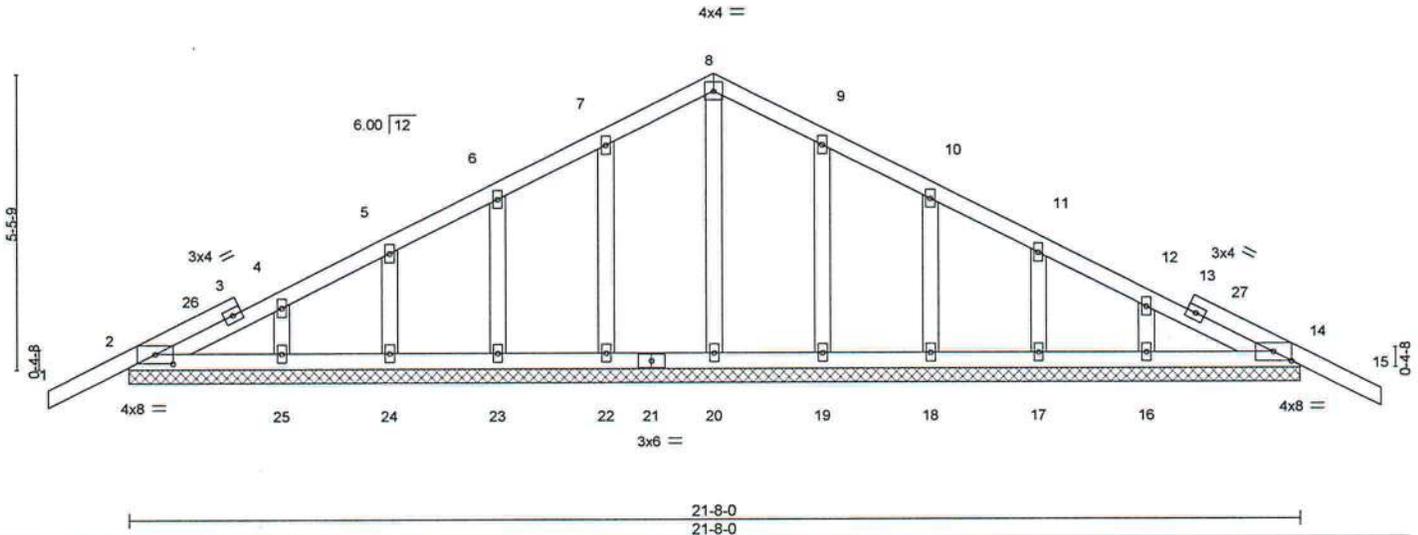


Plate Offsets (X,Y)-- [2:0-4-0,0-2-1], [14:0-4-0,0-2-1]

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.13	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.05	Vert(LL) -0.01 15 n/r 120		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.05	Vert(CT) -0.01 15 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.00 14 n/a n/a		
	Code FBC2020/TPI2014			Weight: 114 lb	FT = 20%

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

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

**REACTIONS.** All bearings 21-8-0.  
 (lb) - Max Horz 2=87(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 14, 22, 23, 24, 25, 19, 18, 17, 16  
 Max Grav All reactions 250 lb or less at joint(s) 2, 14, 20, 22, 23, 24, 25, 19, 18, 17, 16

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 10-10-0, Corner(3R) 10-10-0 to 13-10-0, Exterior(2N) 13-10-0 to 23-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Gable studs spaced at 2-0-0 oc.
  - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 9) \* 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.
  - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 14, 22, 23, 24, 25, 19, 18, 17, 16.



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 Date: May 12, 2022

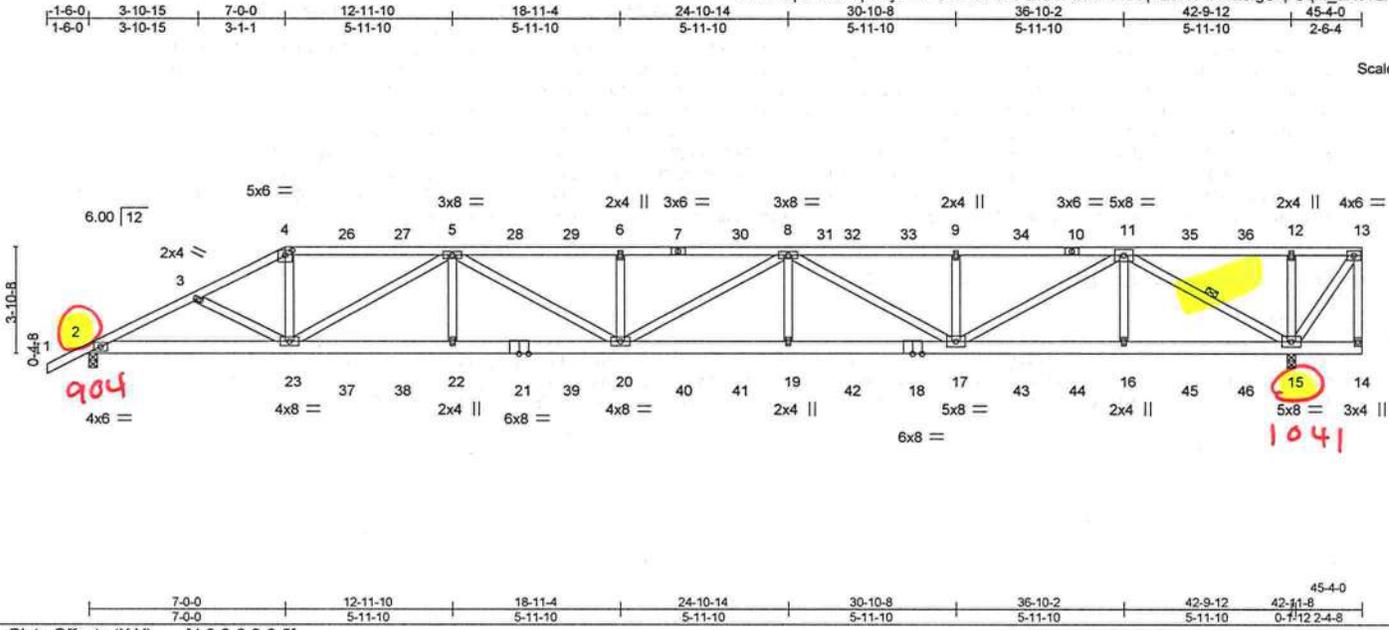
**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss T02	Truss Type Half Hip Girder	Qty 1	Ply 2	GIEBEIG - LOT 8 CW	T27693427
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:00 2022 Page 1  
 ID:MRUpuoKKMqHFlytM1PC4d7zYsSj-EtO5Pz3vmmXqV2cscFwNklJtGUpGqm\_arSyzHY5r

Scale = 1:78.9



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.87	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.97	Vert(LL) -0.50 19-20 >999 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.76	Vert(CT) -0.94 19-20 >547 180		
BCDL 10.0	Code FBC2020/TP12014	Matrix-MS	Horz(CT) 0.17 15 n/a n/a		
				Weight: 566 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 3-0-3 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 11-15

**REACTIONS.** (size) 2=0-3-8, 15=0-3-8  
 Max Horz 2=143(LC 27)  
 Max Uplift 2=904(LC 8), 15=1041(LC 5)  
 Max Grav 2=3250(LC 1), 15=3957(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=6693/1859, 3-4=6553/1823, 4-5=5948/1683, 5-6=10423/2787, 6-8=10423/2787, 8-9=8435/2232, 9-11=8435/2232  
 BOT CHORD 2-23=1735/5940, 22-23=2449/9024, 20-22=2449/9024, 19-20=2738/10290, 17-19=2738/10290, 16-17=1322/5005, 15-16=1322/5005  
 WEBS 4-23=583/2462, 5-23=3628/952, 5-22=0/502, 5-20=404/1657, 6-20=626/326, 8-19=0/515, 8-17=2151/624, 9-17=636/330, 11-17=1055/3976, 11-16=0/480, 11-15=5846/1545, 12-15=571/284

- 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 0-7-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* 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=904, 15=1041.



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 Date:

May 12, 2022

Continued on page 2

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss T02	Truss Type Half Hip Girder	Qty 1	Ply <b>2</b>	GIEBEIG - LOT 8 CW Job Reference (optional)	T27693427
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:00 2022 Page 2  
ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-EtO5Pz3vmmXqV2cscFwNkIlJgUkpGqm\_aRsYzHY5r

**NOTES-**

- 10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 90 lb up at 7-0-0, 110 lb down and 90 lb up at 9-0-12, 110 lb down and 90 lb up at 11-0-12, 110 lb down and 90 lb up at 13-0-12, 110 lb down and 90 lb up at 15-0-12, 110 lb down and 90 lb up at 17-0-12, 110 lb down and 90 lb up at 19-0-12, 110 lb down and 90 lb up at 21-0-12, 110 lb down and 90 lb up at 23-0-12, 110 lb down and 90 lb up at 25-0-12, 110 lb down and 90 lb up at 27-0-12, 110 lb down and 90 lb up at 29-0-12, 110 lb down and 90 lb up at 31-0-12, 110 lb down and 90 lb up at 33-0-12, 110 lb down and 90 lb up at 35-0-12, 110 lb down and 90 lb up at 37-0-12, 110 lb down and 90 lb up at 39-0-12, 110 lb down and 90 lb up at 41-0-12, and 110 lb down and 90 lb up at 43-0-12, and 133 lb down and 88 lb up at 45-2-4 on top chord, and 335 lb down and 174 lb up at 7-0-0, 86 lb down at 9-0-12, 86 lb down at 11-0-12, 86 lb down at 13-0-12, 86 lb down at 15-0-12, 86 lb down at 17-0-12, 86 lb down at 19-0-12, 86 lb down at 21-0-12, 86 lb down at 23-0-12, 86 lb down at 25-0-12, 86 lb down at 27-0-12, 86 lb down at 29-0-12, 86 lb down at 31-0-12, 86 lb down at 33-0-12, 86 lb down at 35-0-12, 86 lb down at 37-0-12, 86 lb down at 39-0-12, 86 lb down at 41-0-12, and 86 lb down at 43-0-12, and 103 lb down at 45-2-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S) Standard**

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

**Uniform Loads (plf)**

Vert: 1-4=-54, 4-13=-54, 2-14=-20

**Concentrated Loads (lb)**

Vert: 4=-110(B) 7=-110(B) 13=-133(B) 14=-73(B) 21=-64(B) 23=-335(B) 5=-110(B) 22=-64(B) 20=-64(B) 6=-110(B) 19=-64(B) 8=-110(B) 9=-110(B) 17=-64(B) 16=-64(B) 11=-110(B) 12=-110(B) 15=-64(B) 10=-110(B) 18=-64(B) 26=-110(B) 27=-110(B) 28=-110(B) 29=-110(B) 30=-110(B) 32=-110(B) 33=-110(B) 34=-110(B) 35=-110(B) 36=-110(B) 37=-64(B) 38=-64(B) 39=-64(B) 40=-64(B) 41=-64(B) 42=-64(B) 43=-64(B) 44=-64(B) 45=-64(B) 46=-64(B)

**WARNING** - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
Tampa, FL 36610

Job 3163304	Truss T03	Truss Type Half Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693428
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:02 2022 Page 1  
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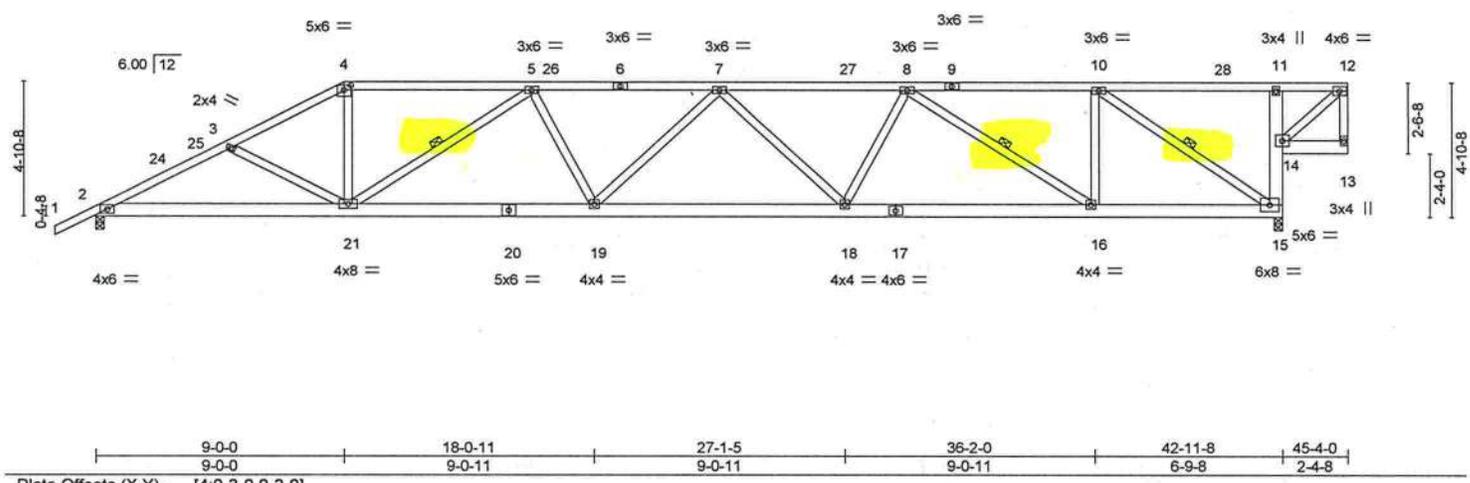


Plate Offsets (X,Y)--	[4:0-3-0,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.68	Vert(LL)	-0.30 18-19	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.68	Vert(CT)	-0.57 18-19	>897	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.81	Horz(CT)	0.14 15	n/a	n/a		
BCDL 10.0	Code	FBC2020/TP12014	Matrix-MS						
								Weight: 280 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 2-7-4 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 5-21, 8-16, 10-15

**REACTIONS.** (size) 2=0-3-8, 15=0-3-8  
 Max Horz 2=178(LC 12)  
 Max Uplift 2=-409(LC 12), 15=-470(LC 9)  
 Max Grav 2=1658(LC 1), 15=1767(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3108/764, 3-4=-2869/688, 4-5=-2550/650, 5-7=-3639/924, 7-8=-3452/886, 8-10=-1967/516  
 BOT CHORD 2-21=-785/2753, 19-21=-918/3510, 18-19=-993/3727, 16-18=-861/3220, 15-16=-516/1967, 14-15=-360/133, 11-14=-278/132  
 WEBS 3-21=-266/160, 4-21=-186/986, 5-21=-1230/389, 5-19=-30/368, 7-18=-387/231, 8-18=-121/543, 8-16=-1503/414, 10-16=-174/985, 10-15=-2377/616

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 9-0-0, Exterior(2R) 9-0-0 to 15-4-15, Interior(1) 15-4-15 to 45-2-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - 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=409, 15=470.



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 Date:

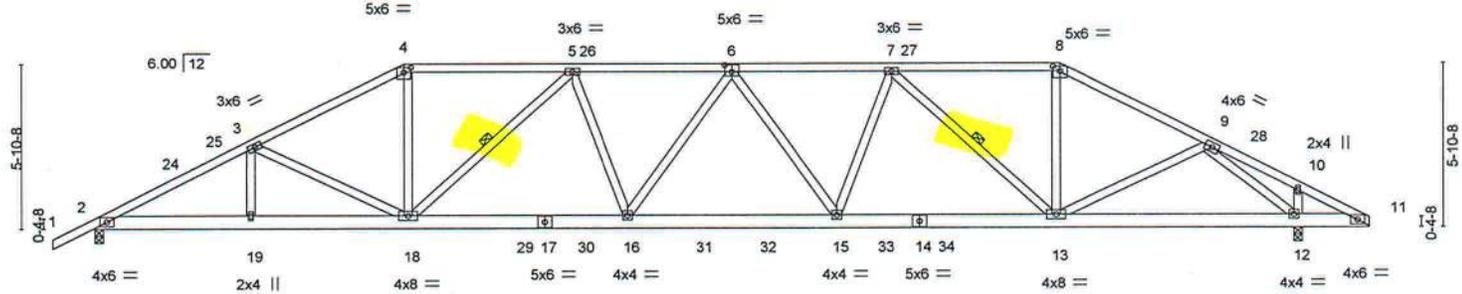
May 12, 2022

Job 3163304	Truss T04	Truss Type Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693429
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:03 2022 Page 1  
 ID:MRUpuoKKMqHFlydM1PC4d7zYsSj-eS3E176n3m86hznBXkpd?NNuw5ntx9PGSxp5TtzHY5o



Scale = 1:78.5



5-6-11	11-0-0	18-11-6	26-4-10	34-4-0	42-11-8	45-4-0
5-6-11	5-5-5	7-11-6	7-5-4	7-11-6	8-7-8	2-4-8

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	0.46	Vert(LL)	-0.27 16-18	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.65	Vert(CT)	-0.46 16-18	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.13 12	n/a	n/a		
BCDL	10.0	Code	FBC2020/TPI2014	Matrix-MS							
									Weight: 282 lb	FT = 20%	

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 2-11-10 oc purlins.
BOT CHORD	2x6 SP No.2	BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 5-18, 7-13

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8  
 Max Horz 2=104(LC 16)  
 Max Uplift 2=385(LC 12), 12=386(LC 13)  
 Max Grav 2=1783(LC 2), 12=1929(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=3415/694, 3-4=2954/607, 4-5=2618/580, 5-6=3333/705, 6-7=3189/666,  
 7-8=2177/471, 8-9=2464/487  
 BOT CHORD 2-19=645/3028, 18-19=645/3028, 16-18=652/3227, 15-16=676/3341, 13-15=591/3008,  
 12-13=303/1697  
 WEBS 3-18=497/196, 4-18=153/1066, 5-18=903/277, 5-16=59/361, 6-15=328/161,  
 7-15=96/561, 7-13=1179/323, 8-13=121/847, 9-13=104/574, 9-12=2232/496

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 11-0-0, Exterior(2R) 11-0-0 to 17-4-15, Interior(1) 17-4-15 to 34-4-0, Exterior(2R) 34-4-0 to 40-8-15, Interior(1) 40-8-15 to 45-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=385, 12=386.



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 Date: May 12, 2022

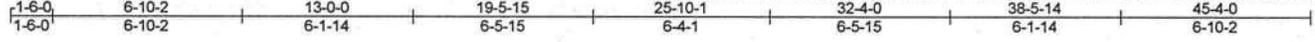
**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss T05	Truss Type Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693430
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:04 2022 Page 1  
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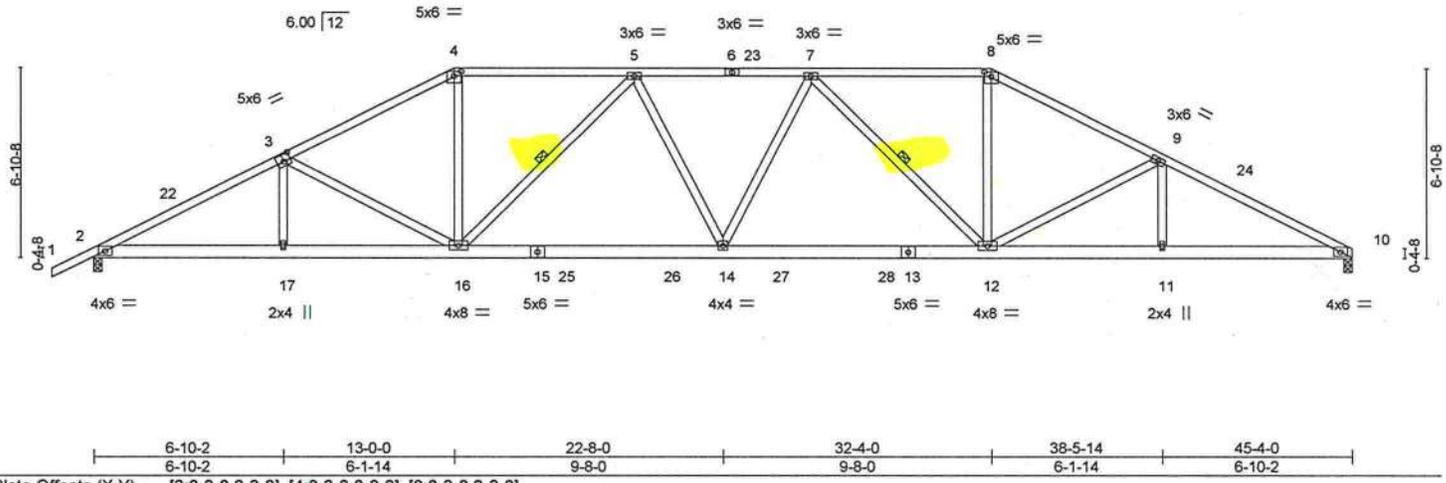


Plate Offsets (X,Y)-	[3:0-3-0,0-3-0], [4:0-3-0,0-2-0], [8:0-3-0,0-2-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.63	Vert(LL)	-0.33 12-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.78	Vert(CT)	-0.57 12-14	>961	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.58	Horz(CT)	0.16 10	n/a	n/a		
BCDL 10.0	Code	FBC2020/TP12014	Matrix-MS						
								Weight: 275 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-16, 7-12

**REACTIONS.** (size) 10=0-3-8, 2=0-3-8  
 Max Horz 2=119(LC 12)  
 Max Uplift 10=362(LC 13), 2=395(LC 12)  
 Max Grav 10=1846(LC 2), 2=1915(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**TOP CHORD** 2-3=-3654/705, 3-4=-3088/599, 4-5=-2725/577, 5-7=-3327/654, 7-8=-2727/579, 8-9=-3091/602, 9-10=-3667/715  
**BOT CHORD** 2-17=-656/3223, 16-17=-656/3226, 14-16=-544/3222, 12-14=-520/3223, 11-12=-568/3235, 10-11=-568/3235  
**WEBS** 3-17=0/263, 3-16=-601/237, 4-16=-136/1100, 5-16=-795/241, 5-14=-63/311, 7-14=-62/310, 7-12=-794/240, 8-12=-142/1103, 9-12=-610/245, 9-11=0/266

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 13-0-0, Exterior(2R) 13-0-0 to 19-5-15, Interior(1) 19-5-15 to 32-4-0, Exterior(2R) 32-4-0 to 38-5-14, Interior(1) 38-5-14 to 45-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - 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) 10=362, 2=395.



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 Date:

May 12, 2022

Job 3163304	Truss T06	Truss Type Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693431
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:06 2022 Page 1  
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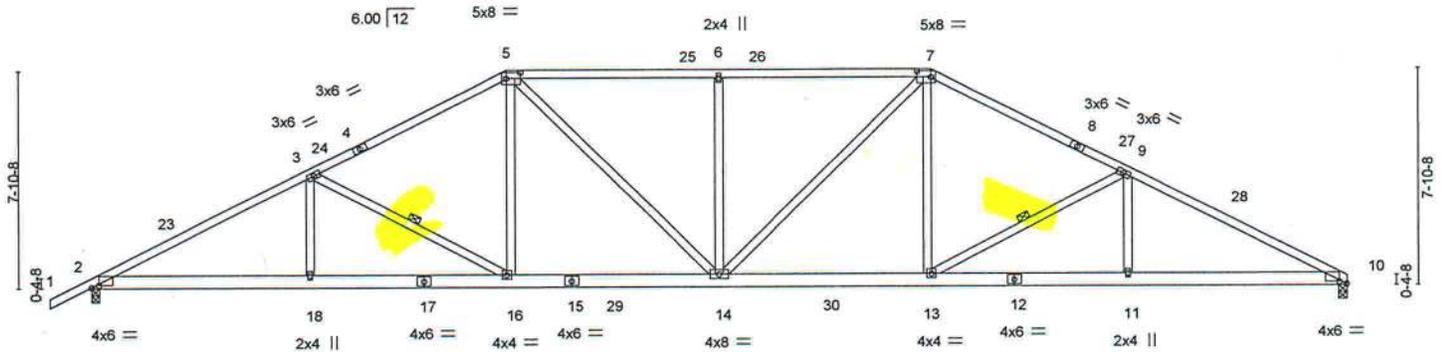


Plate Offsets (X,Y)- [2:0-3-3,0-0-14], [5:0-6-0,0-2-8], [7:0-6-0,0-2-8], [10:0-3-3,0-0-14]

<b>LOADING (psf)</b>	<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 0.93	Vert(LL)	-0.28 13-14	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.84	Vert(CT)	-0.48 13-14	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.14 10	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 278 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.  
 BOT CHORD Rigid ceiling directly applied or 9-0-0 oc bracing.  
 WEBS 1 Row at midpt 3-16, 9-13

**REACTIONS.**

(size) 2=0-3-8, 10=0-3-8  
 Max Horz 2=134(LC 12)  
 Max Uplift 2=-393(LC 12), 10=-360(LC 13)  
 Max Grav 2=1912(LC 2), 10=1844(LC 2)

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

TOP CHORD 2-3=-3601/687, 3-5=-2906/582, 5-6=-2884/625, 6-7=-2884/625, 7-9=-2908/586,  
 9-10=-3613/695  
 BOT CHORD 2-18=-643/3167, 16-18=-643/3167, 14-16=-405/2540, 13-14=-341/2542, 11-13=-540/3179,  
 10-11=-540/3179  
 WEBS 3-18=0/336, 3-16=-733/273, 5-16=-83/645, 5-14=-180/592, 6-14=-474/231,  
 7-14=-180/590, 7-13=-85/648, 9-13=-742/280, 9-11=0/338

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 15-0-0, Exterior(2R) 15-0-0 to 21-4-15, Interior(1) 21-4-15 to 30-4-0, Exterior(2R) 30-4-0 to 36-8-15, Interior(1) 36-8-15 to 45-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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) 2=393, 10=360.



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 6904 Parke East Blvd. Tampa FL 33610  
 Date:

May 12, 2022



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6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss T07	Truss Type Roof Special	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693432
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Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:08 2022 Page 1  
ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-7Qs74iAwJmOnkF8KIPoiQ4eK6QbcQ50bDWs85zHY5j



Scale = 1:81.5

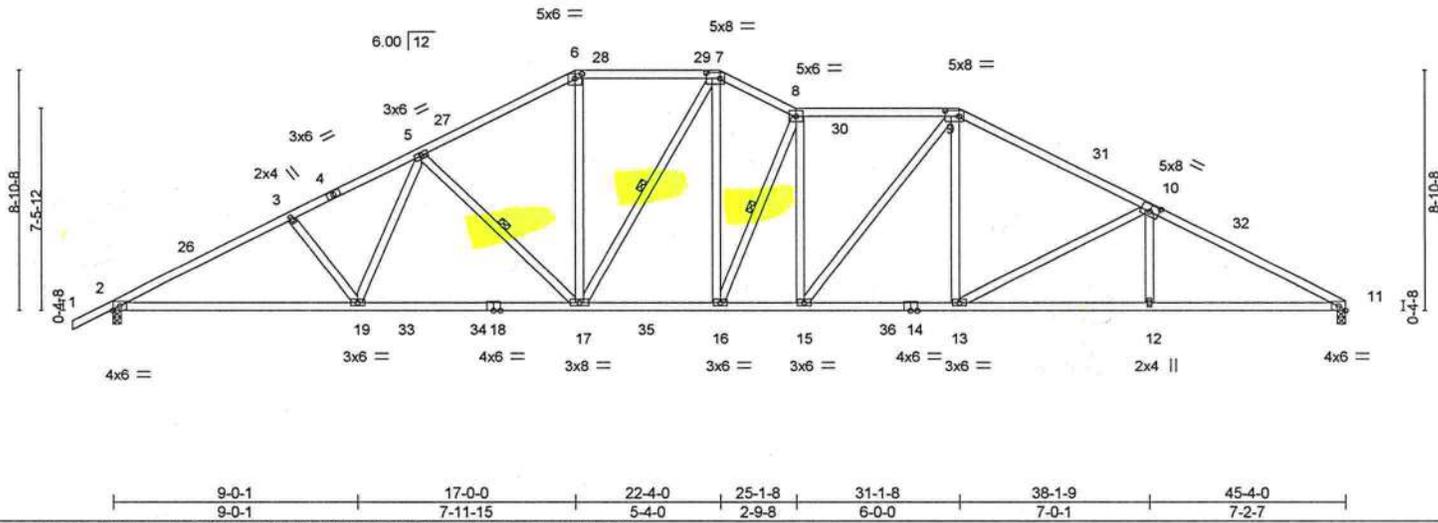


Plate Offsets (X,Y)- [6:0-3-0,0-2-0], [7:0-6-0,0-2-8], [9:0-6-0,0-2-8], [10:0-4-0,0-3-0]

LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.93	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.96	Vert(LL) -0.32 13-15 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.83	Vert(CT) -0.55 17-19 >993 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.19 11 n/a n/a		
	Code FBC2020/TPI2014			Weight: 270 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 2-18: 2x4 SP M 31  
 WEBS 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
 WEBS 1 Row at midpt 5-17, 7-17, 8-16

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8  
 Max Horz 2=149(LC 12)  
 Max Uplift 2=-342(LC 12), 11=-360(LC 13)  
 Max Grav 2=1923(LC 2), 11=1845(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3559/735, 3-5=-3399/732, 5-6=-2674/659, 6-7=-2353/633, 7-8=-2781/716,  
 8-9=-2924/729, 9-10=-2944/680, 10-11=-3588/751  
 BOT CHORD 2-19=-611/3135, 17-19=-525/2780, 16-17=-416/2486, 15-16=-527/2929, 13-15=-437/2575,  
 12-13=-603/3166, 11-12=-604/3159  
 WEBS 3-19=-278/170, 5-19=-96/579, 5-17=-626/249, 6-17=-140/933, 7-17=-394/136,  
 7-16=-291/1274, 8-16=-1228/335, 8-15=-308/134, 9-15=-139/560, 9-13=-75/576,  
 10-13=-681/262, 10-12=0/293

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 17-0-0, Exterior(2R) 17-0-0 to 21-6-6, Interior(1) 21-6-6 to 22-4-0, Exterior(2E) 22-4-0 to 25-1-8, Interior(1) 25-1-8 to 31-1-8, Exterior(2R) 31-1-8 to 35-7-14, Interior(1) 35-7-14 to 45-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - 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) 2=342, 11=360.



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 Date:

May 12, 2022

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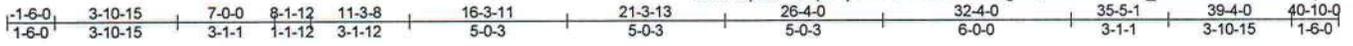
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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 ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss T08	Truss Type Hip Girder	Qty 1	Ply 2	GIEBEIG - LOT 8 CW Job Reference (optional)	T27693433
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:13 2022 Page 1  
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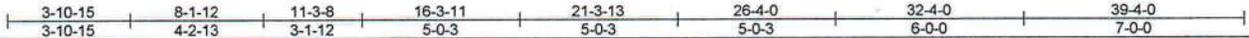
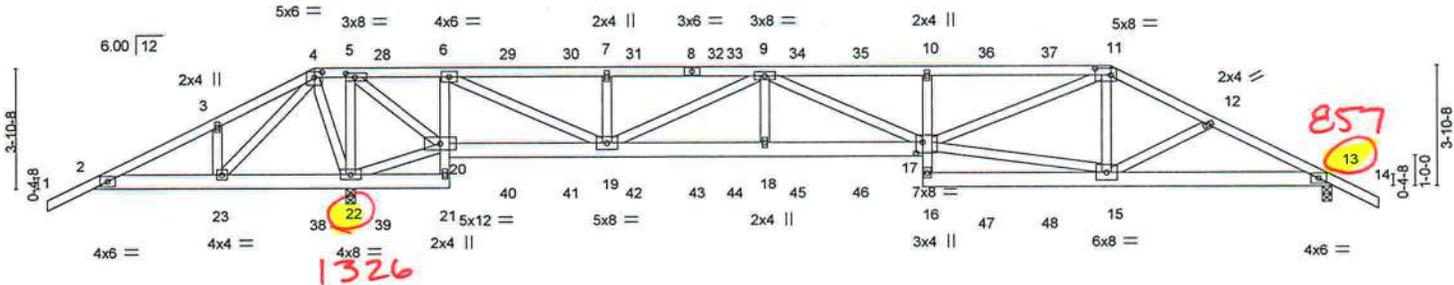


Plate Offsets (X,Y) - [4:0-3-0,0-2-0], [5:0-3-8,0-1-8], [11:0-6-0,0-2-8], [17:0-2-8,0-4-4]

<b>LOADING (psf)</b>	<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 0.96	Vert(LL)	-0.30	17-18	>999	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.99	Vert(CT)	-0.54	17-18	>693		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.75	Horz(CT)	0.16	13	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS					Weight: 504 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2 "Except"  
6-21,10-16: 2x4 SP No.3  
WEBS 2x4 SP No.3

**BRACING-**

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

**REACTIONS.**

(size) 13=0-3-8, 22=0-3-8  
Max Horz 22=63(LC 27)  
Max Uplift 13=857(LC 4), 22=1326(LC 4)  
Max Grav 13=2344(LC 20), 22=3761(LC 1)

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

TOP CHORD 2-3=-177/515, 3-4=-108/508, 4-5=-247/953, 5-6=-2204/1003, 6-7=-5698/2140, 7-9=-5698/2140, 9-10=-7531/2867, 10-11=-7450/2844, 11-12=-4542/1749, 12-13=-4688/1756  
BOT CHORD 2-23=-423/212, 22-23=-714/304, 6-20=-2167/836, 19-20=-1017/2312, 18-19=-2804/7581, 17-18=-2804/7581, 10-17=-605/303, 15-16=-242/732, 13-15=-1529/4153  
WEBS 4-23=-169/439, 4-22=-768/276, 5-22=-2296/902, 20-22=-958/333, 5-20=-1285/3373, 6-19=-1416/3931, 7-19=-529/259, 9-19=-2231/801, 9-18=-97/510, 15-17=-1272/3363, 11-17=-1372/3699, 11-15=-19/292

**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: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; cantilever left exposed; porch left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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) 13=857, 22=1326.



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Date:

May 12, 2022

Continued on page 2

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6904 Parke East Blvd.  
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	GIEBEIG - LOT 8 CW	T27693433
3163304	T08	Hip Girder	1	2	Job Reference (optional)	

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:13 2022 Page 2

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**NOTES-**

10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 128 lb down and 90 lb up at 7-0-0, 110 lb down and 90 lb up at 9-0-12, 97 lb down and 77 lb up at 11-0-12, 97 lb down and 77 lb up at 13-0-12, 97 lb down and 77 lb up at 15-0-12, 97 lb down and 77 lb up at 17-0-12, 97 lb down and 74 lb up at 19-0-12, 97 lb down and 74 lb up at 20-3-4, 97 lb down and 77 lb up at 22-3-4, 97 lb down and 77 lb up at 24-3-4, 97 lb down and 77 lb up at 26-3-4, 110 lb down and 90 lb up at 28-3-4, and 110 lb down and 90 lb up at 30-3-4, and 230 lb down and 173 lb up at 32-4-0 on top chord, and 335 lb down and 174 lb up at 7-0-0, 86 lb down at 9-0-12, 78 lb down and 32 lb up at 13-0-12, 78 lb down and 32 lb up at 15-0-12, 78 lb down and 32 lb up at 17-0-12, 78 lb down and 32 lb up at 19-0-12, 78 lb down and 32 lb up at 20-3-4, 78 lb down and 32 lb up at 22-3-4, 78 lb down and 32 lb up at 24-3-4, 78 lb down and 32 lb up at 26-5-12, 86 lb down at 28-3-4, and 86 lb down at 30-3-4, and 335 lb down and 174 lb up at 32-3-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S) Standard**

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

Uniform Loads (plf)

Vert: 1-4=-54, 4-11=-54, 11-14=-54, 2-21=-20, 17-20=-20, 13-16=-20

Concentrated Loads (lb)

Vert: 4=-110(F) 8=-97(F) 11=-182(F) 6=-97(F) 10=-97(F) 17=-77(F) 15=-335(F) 28=-110(F) 29=-97(F) 30=-97(F) 31=-97(F) 33=-97(F) 34=-97(F) 35=-97(F) 36=-110(F) 37=-110(F) 38=-335(F) 39=-64(F) 40=-77(F) 41=-77(F) 42=-77(F) 43=-77(F) 44=-77(F) 45=-77(F) 46=-77(F) 47=-64(F) 48=-64(F)

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Job 3163304	Truss T09	Truss Type Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW Job Reference (optional)	T27693434
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:14 2022 Page 1  
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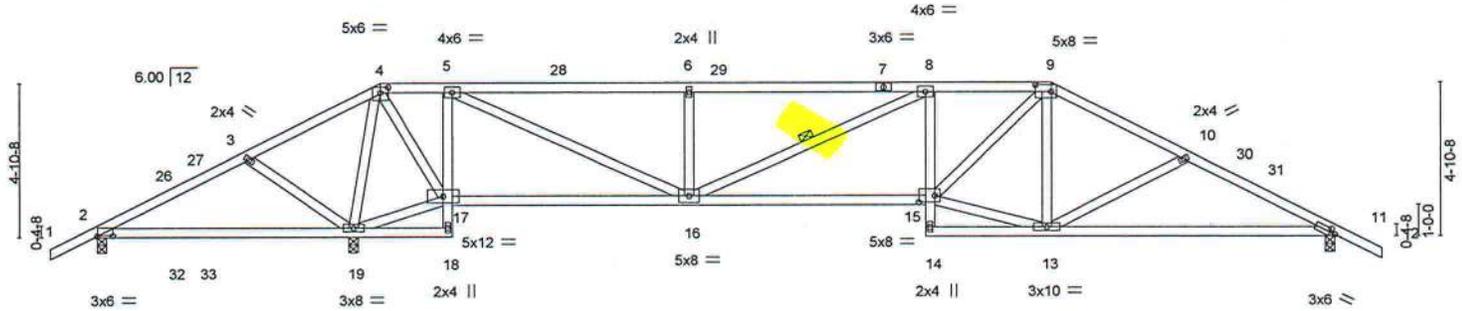


Plate Offsets (X,Y)	8-1-12 8-1-12	11-3-8 3-1-12	18-9-12 7-6-4	26-4-0 7-6-4	30-4-0 4-0-0	39-4-0 9-0-0
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<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.58	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 0.77	Vert(LL) 0.17 19-22 >583 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.74	Vert(CT) -0.34 13-25 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 11 n/a n/a		
	Code FBC2020/TPI2014			Weight: 215 lb	FT = 20%

**LUMBER-**

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

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 4-0-7 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 5-5-14 oc bracing.  
 WEBS 1 Row at midpt 8-16

**REACTIONS.**

(size) 2=0-3-8, 11=0-3-8, 19=0-3-8  
 Max Horz 2=78(LC 12)  
 Max Uplift 2=449(LC 24), 11=284(LC 13), 19=537(LC 9)  
 Max Grav 2=60(LC 13), 11=1079(LC 24), 19=2238(LC 1)

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

TOP CHORD 2-3=-253/1226, 3-4=-271/1391, 4-5=-36/362, 5-6=-1456/405, 6-8=-1456/405,  
 8-9=-1902/505, 9-10=-1532/402, 10-11=-1800/484  
 BOT CHORD 2-19=-1066/287, 5-17=-1155/358, 16-17=-331/212, 15-16=-387/1941, 11-13=-359/1585  
 WEBS 3-19=-321/234, 4-19=-1610/344, 17-19=-910/298, 4-17=-256/1070, 5-16=-459/1944,  
 6-16=-429/208, 8-16=-545/207, 13-15=-182/1313, 9-15=-236/808, 10-13=-305/169

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-5-3, Interior(1) 2-5-3 to 9-0-0, Exterior(2R) 9-0-0 to 14-6-12, Interior(1) 14-6-12 to 30-4-0, Exterior(2R) 30-4-0 to 35-10-12, Interior(1) 35-10-12 to 40-10-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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=449, 11=284, 19=537.



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 Date: May 12, 2022

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 Tampa, FL 36610



Job 3163304	Truss T11	Truss Type Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW Job Reference (optional)	T27693436
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:17 2022 Page 1

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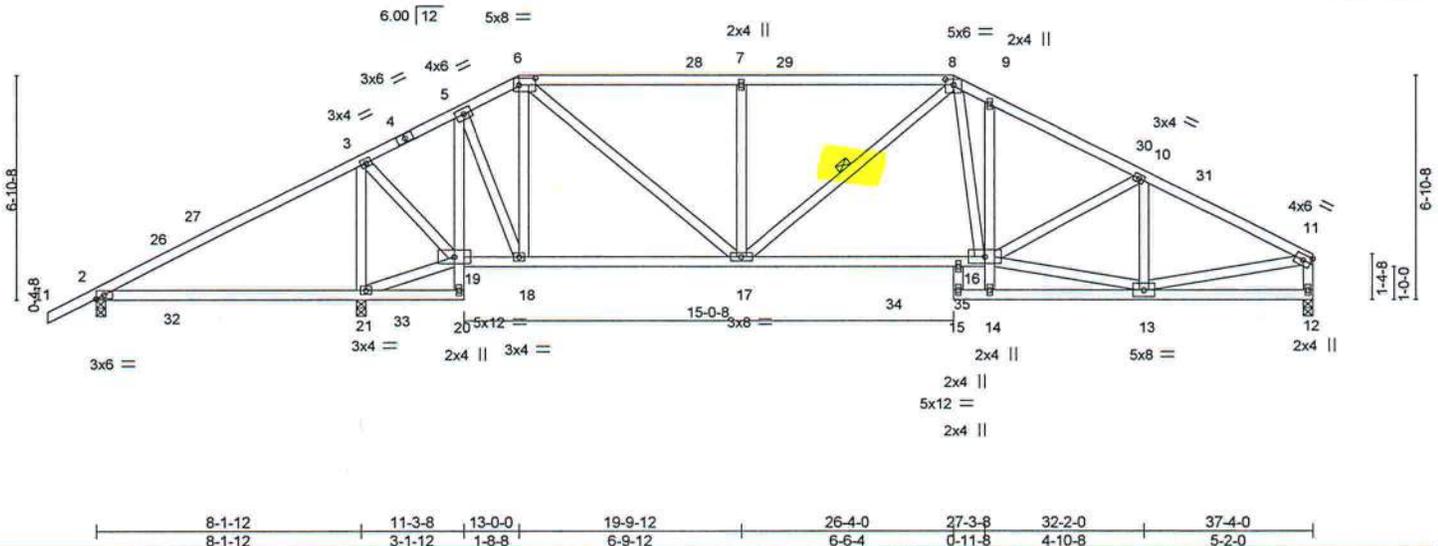


Plate Offsets (X,Y)-- [6:0-6-0,0-2-8], [8:0-3-0,0-2-0]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.72	Vert(LL)	0.23 21-25	>433	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.70	Vert(CT)	0.18 21-25	>545	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05 12	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 236 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-5-10 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except*	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
5-20,9-14: 2x4 SP No.3	10-0-0 oc bracing: 14-16
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-17

**REACTIONS.** (size) 2=0-3-8, 12=0-3-8, 21=0-3-8  
 Max Horz 2=140(LC 12)  
 Max Uplift 2=65(LC 12), 12=235(LC 13), 21=343(LC 12)  
 Max Grav 2=205(LC 23), 12=1121(LC 2), 21=1809(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-76/498, 3-5=-398/170, 5-6=-657/204, 6-7=-1342/332, 7-8=-1342/332,  
 8-9=-1633/403, 9-10=-1674/367, 10-11=-1513/324, 11-12=-1035/246  
 BOT CHORD 2-21=-405/126, 5-19=-814/125, 18-19=-60/314, 17-18=-101/579, 16-17=-168/1345  
 WEBS 3-21=-1366/347, 19-21=-394/128, 3-19=-100/922, 5-18=-141/781, 6-18=-566/162,  
 6-17=-208/1006, 7-17=-411/199, 8-16=-118/603, 13-16=-228/1329, 10-13=-407/133,  
 11-13=-218/1250

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 13-0-0, Exterior(2R) 13-0-0 to 18-3-6, Interior(1) 18-3-6 to 26-4-0, Exterior(2R) 26-4-0 to 31-7-6, Interior(1) 31-7-6 to 37-2-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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) 2 except (jt=lb) 12=235, 21=343.



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 Date:

May 12, 2022

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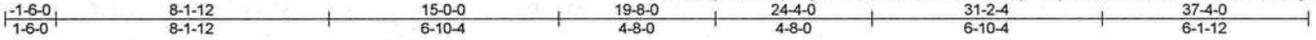


6904 Parke East Blvd.  
 Tampa, FL 36610

Job 3163304	Truss T12	Truss Type Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693437
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:19 2022 Page 1

ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-AX1HOTIqHh9qcQ?GT55Nel1ZzXBShTAd7Rhx1yzHY5Y



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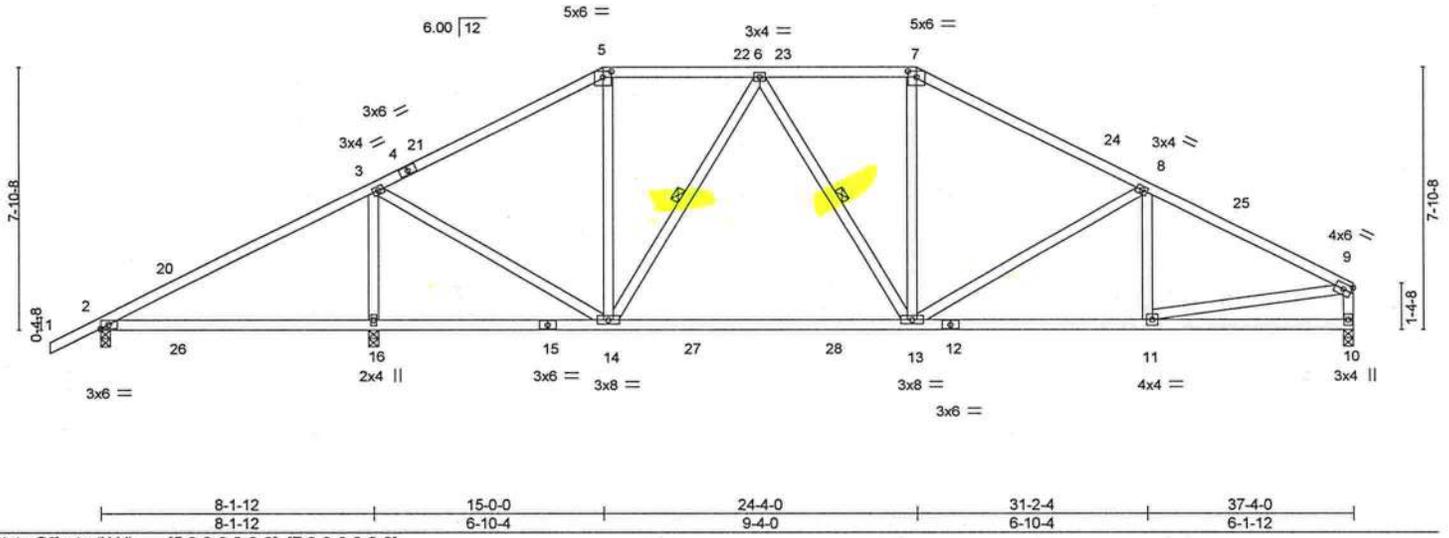


Plate Offsets (X,Y)-- [5:0-3-0,0-2-0], [7:0-3-0,0-2-0]

<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	<b>L/defl</b>	<b>L/d</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.25	TC 0.71	Vert(LL) 0.26 16-19	>383	240	MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.88	Vert(CT) 0.21 16-19	>468	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.49	Horz(CT) 0.03 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS				Weight: 210 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 4-5-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.  
 WEBS 1 Row at midpt 6-14, 6-13

**REACTIONS.** (size) 2=0-3-8, 16=0-3-8, 10=0-3-8  
 Max Horz 2=155(LC 12)  
 Max Uplift 2=-86(LC 9), 16=-324(LC 12), 10=-242(LC 13)  
 Max Grav 2=322(LC 23), 16=1646(LC 2), 10=1140(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-5=-954/255, 5-6=-782/257, 6-7=-1118/322, 7-8=-1319/317, 8-9=-1588/348, 9-10=-1039/256  
 BOT CHORD 13-14=-132/1013, 11-13=-257/1376  
 WEBS 3-16=-1354/347, 3-14=-102/1020, 6-14=-501/160, 6-13=-63/251, 7-13=-31/334, 8-13=-330/184, 9-11=-229/1281

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCCL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 15-0-0, Exterior(2R) 15-0-0 to 20-3-6, Interior(1) 20-3-6 to 24-4-0, Exterior(2R) 24-4-0 to 29-7-6, Interior(1) 29-7-6 to 37-2-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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 BCCL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 16=324, 10=242.



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May 12, 2022

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6904 Parke East Blvd.  
 Tampa, FL 33610

Job 3163304	Truss T13	Truss Type Hip	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693438
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:20 2022 Page 1  
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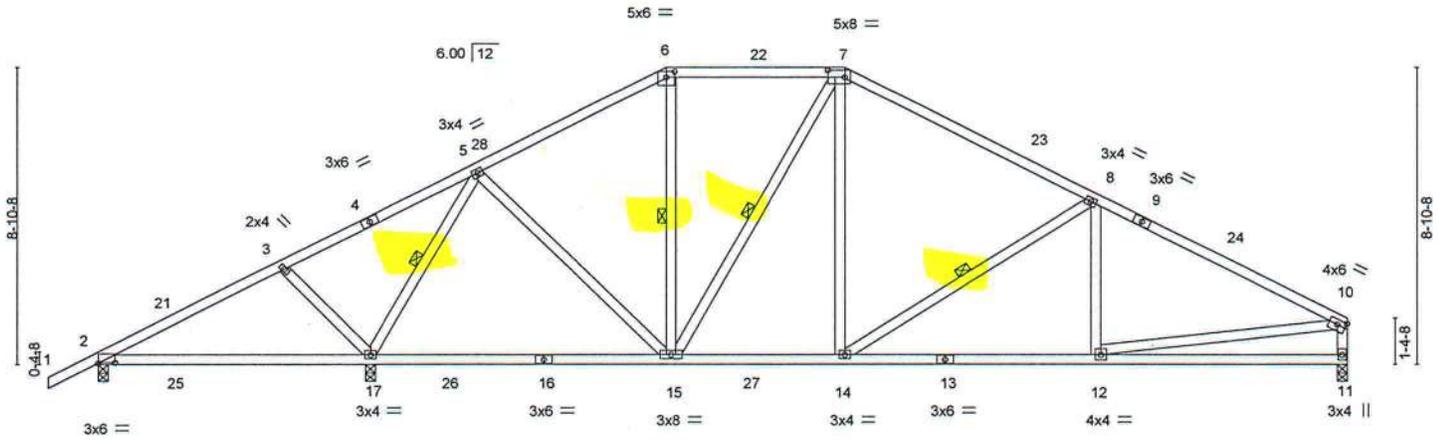


Plate Offsets (X,Y)--	[2:0-6-0,0-0-3], [6:0-3-0,0-2-0], [7:0-6-0,0-2-8], [10:Edge,0-1-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.61	Vert(LL)	0.21 17-20	>472	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.76	Vert(CT)	0.19 17-20	>528	180		
BCLL 0.0	Rep Stress Incr	YES	WB 0.46	Horz(CT)	0.03 11	n/a	n/a		
BCDL 10.0	Code	FBC2020/TP12014	Matrix-MS					Weight: 216 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-0-1 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.3	6-0-0 oc bracing: 2-17.
	WEBS 1 Row at midpt 5-17, 6-15, 7-15, 8-14

**REACTIONS.** (size) 2=0-3-8, 11=0-3-8, 17=0-3-8  
 Max Horz 2=170(LC 12)  
 Max Uplift 2=-77(LC 8), 11=-234(LC 13), 17=-357(LC 12)  
 Max Grav 2=266(LC 23), 11=1116(LC 2), 17=1771(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-5=-99/425, 5-6=-919/256, 6-7=-770/263, 7-8=-1128/296, 8-10=-1574/335, 10-11=-1002/252  
 BOT CHORD 15-17=-78/376, 14-15=-91/942, 12-14=-231/1351  
 WEBS 3-17=-314/197, 5-17=-1386/313, 5-15=-44/585, 7-15=-378/137, 7-14=-87/490, 8-14=-507/226, 10-12=-189/1204

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-2-13, Interior(1) 2-2-13 to 17-0-0, Exterior(2E) 17-0-0 to 22-4-0, Exterior(2R) 22-4-0 to 27-7-6, Interior(1) 27-7-6 to 37-2-4 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - 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) 2 except (jt=lb) 11=234, 17=357.



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 Date:

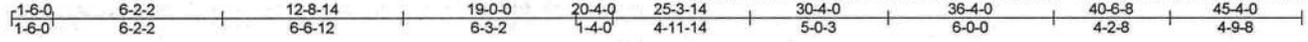
May 12, 2022

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
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Job 3163304	Truss T14	Truss Type Roof Special	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693439
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:22 2022 Page 1  
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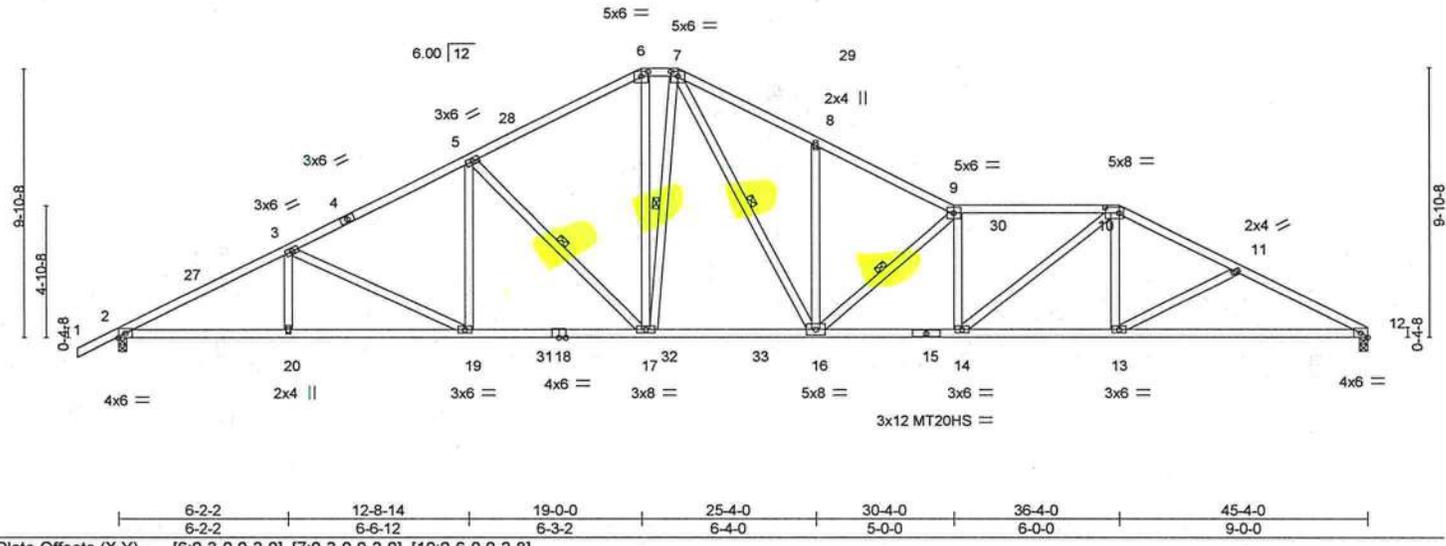


Plate Offsets (X,Y)--	[6:0-3-0,0-2-0], [7:0-3-0,0-2-0], [10:0-6-0,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.46	Vert(LL)	-0.35 16-17	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.45	Vert(CT)	-0.60 16-17	>914	180	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.64	Horz(CT)	0.16 12	n/a	n/a		
BCDL 10.0	Code	FBC2020/TPI2014	Matrix-MS						
								Weight: 275 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 9-10: 2x4 SP M 31	TOP CHORD Structural wood sheathing directly applied or 2-9-12 oc purlins.
BOT CHORD 2x4 SP M 31	BOT CHORD Rigid ceiling directly applied or 9-0-15 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-17, 7-17, 7-16, 9-16

**REACTIONS.** (size) 12=0-3-8, 2=0-3-8  
 Max Horz 2=164(LC 12)  
 Max Uplift 12=371(LC 13), 2=357(LC 12)  
 Max Grav 12=1825(LC 2), 2=1911(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=3612/672, 3-5=3073/634, 5-6=2485/585, 6-7=2173/569, 7-8=3364/817,  
 8-9=3345/734, 9-10=4029/874, 10-11=3329/708, 11-12=3544/766  
 BOT CHORD 2-20=625/3183, 19-20=625/3183, 17-19=443/2694, 16-17=301/2184, 14-16=746/4051,  
 13-14=522/2947, 12-13=634/3151  
 WEBS 3-19=551/207, 5-19=49/498, 5-17=761/274, 6-17=184/902, 7-17=334/163,  
 7-16=470/1671, 8-16=315/198, 9-16=1484/380, 9-14=698/199, 10-14=276/1373,  
 10-13=30/407, 11-13=277/163

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCCL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 19-0-0, Exterior(2E) 19-0-0 to 20-4-0, Exterior(2R) 20-4-0 to 24-10-6, Interior(1) 24-10-6 to 36-4-0, Exterior(2R) 36-4-0 to 40-8-7, Interior(1) 40-8-7 to 45-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCCL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=371, 2=357.

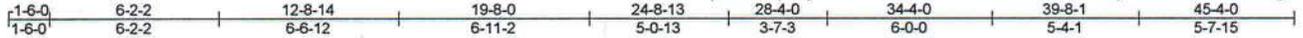


Philip J. O'Regan PE No.58126  
 MiTek USA, Inc. FL Cert 6634  
 6904 Parke East Blvd. Tampa FL 33610  
 Date:

May 12, 2022

Job 3163304	Truss T15	Truss Type Roof Special	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693440
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:23 2022 Page 1  
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Scale = 1:80.4

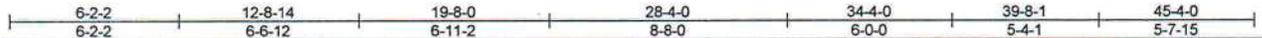
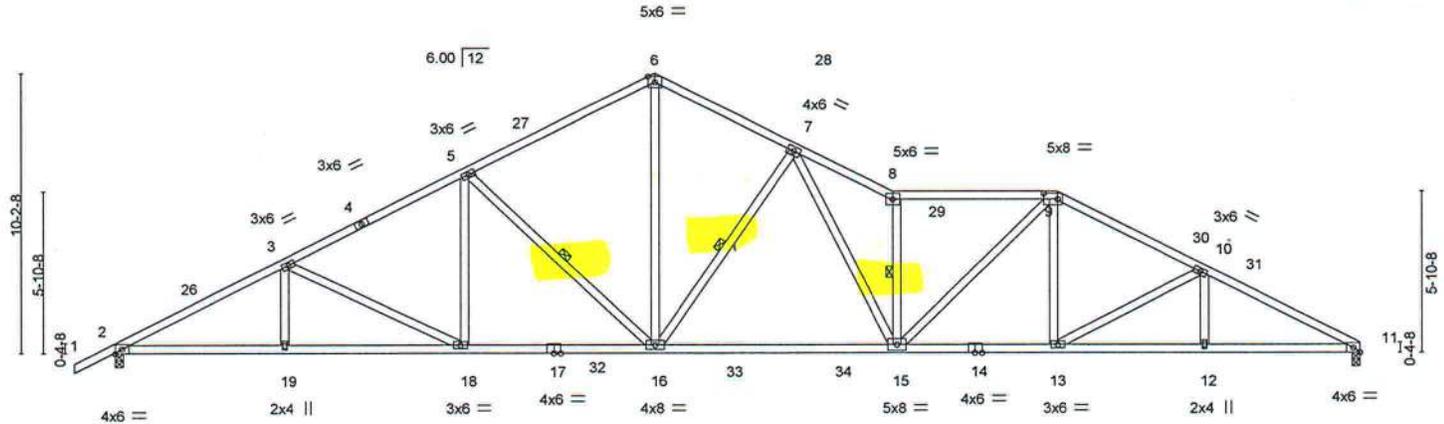


Plate Offsets (X,Y)-- [9:0-6-0,0-2-8]

<b>LOADING (psf)</b>	<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 0.89	Vert(LL)	-0.48 15-16	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.90	Vert(CT)	-0.82 15-16	>660	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.72	Horz(CT)	0.19 11	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 261 lb	FT = 20%

**LUMBER-**

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.2 \*Except\*  
 14-17: 2x4 SP M 31  
 WEBS 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied.  
 BOT CHORD Rigid ceiling directly applied or 7-4-9 oc bracing.  
 WEBS 1 Row at midpt 5-16, 7-16, 8-15

**REACTIONS.**

(size) 11=0-3-8, 2=0-3-8  
 Max Horz 2=168(LC 12)  
 Max Uplift 11=-374(LC 13), 2=-362(LC 12)  
 Max Grav 11=1835(LC 2), 2=1914(LC 2)

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

TOP CHORD 2-3=-3619/656, 3-5=-3082/620, 5-6=-2462/567, 6-7=-2437/585, 7-8=-4067/903,  
 8-9=-3567/767, 9-10=-3163/679, 10-11=-3624/734  
 BOT CHORD 2-19=-637/3188, 18-19=-637/3188, 16-18=-455/2703, 15-16=-454/2836, 13-15=-472/2789,  
 12-13=-598/3198, 11-12=-598/3198  
 WEBS 3-19=0/251, 3-18=-547/202, 5-18=-48/490, 5-16=-781/291, 6-16=-364/1885,  
 7-16=-1236/390, 7-15=-392/1726, 8-15=-1981/502, 9-15=-185/1074, 9-13=-60/400,  
 10-13=-484/188

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 19-8-0, Exterior(2R) 19-8-0 to 24-2-6, Interior(1) 24-2-6 to 34-4-0, Exterior(2R) 34-4-0 to 38-10-6, Interior(1) 38-10-6 to 45-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 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) 11=374, 2=362.



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

May 12,2022

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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 ANSIT/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



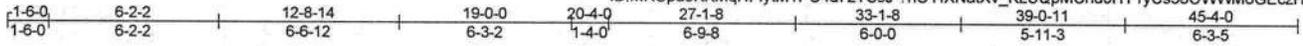
6904 Parke East Blvd.  
 Tampa, FL 33610

Job 3163304	Truss T16	Truss Type Roof Special	Qty 1	Ply 1	GIEBEIG - LOT 8 CW	T27693441
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Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Wed May 11 14:42:25 2022 Page 1

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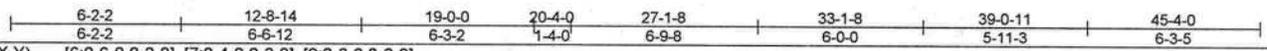
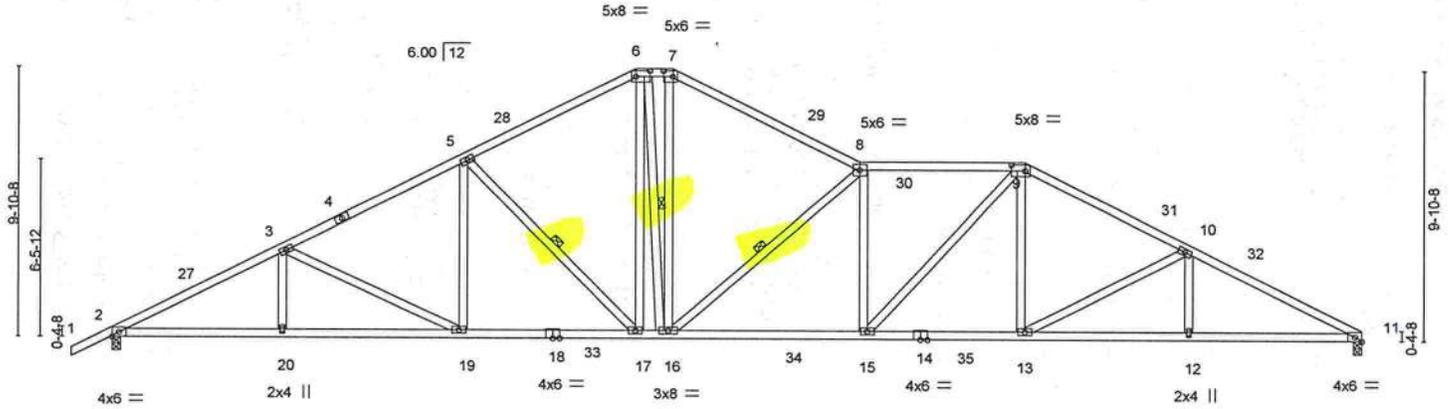


Plate Offsets (X, Y) - [6:0-6-0,0-2-8], [7:0-4-0,0-2-8], [9:0-6-0,0-2-8]

<b>LOADING (psf)</b>	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.93	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 1.00	Vert(LL) -0.37 15-16 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.70	Vert(CT) -0.65 15-16 >840 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.22 11 n/a n/a		
	Code FBC2020/TPI2014			Weight: 280 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.  
 BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.  
 WEBS 1 Row at midpt 5-17, 6-16, 8-16

**REACTIONS.** (size) 11=0-3-8, 2=0-3-8  
 Max Horz 2=164(LC 16)  
 Max Uplift 11=371(LC 13), 2=357(LC 12)  
 Max Grav 11=1848(LC 2), 2=1912(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-3612/679, 3-5=-3080/641, 5-6=-2479/593, 6-7=-2205/579, 7-8=-2516/606,  
 8-9=-3320/750, 9-10=-3102/676, 10-11=-3629/732  
 BOT CHORD 2-20=-625/3183, 19-20=-625/3183, 17-19=-451/2701, 16-17=-306/2161, 15-16=-576/3328,  
 13-15=-454/2727, 12-13=-593/3199, 11-12=-593/3199  
 WEBS 3-19=-545/207, 5-19=-50/513, 5-17=-779/275, 6-17=-167/622, 6-16=-166/484,  
 7-16=-182/874, 8-16=-1522/409, 8-15=-431/166, 9-15=-172/862, 9-13=-67/489,  
 10-13=-556/218

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 3-0-6, Interior(1) 3-0-6 to 19-0-0, Exterior(2E) 19-0-0 to 20-4-0, Exterior(2R) 20-4-0 to 24-10-6, Interior(1) 24-10-6 to 33-1-8, Exterior(2R) 33-1-8 to 37-7-14, Interior(1) 37-7-14 to 45-4-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 3x6 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, 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) 11=371, 2=357.



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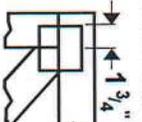
May 12, 2022

**WARNING -** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSIT/TP1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

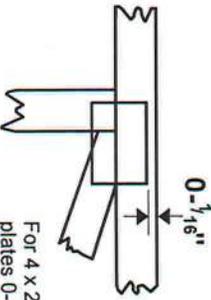


# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.

— This symbol indicates the required direction of slots in connector plates.

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

## PLATE SIZE

4 X 4

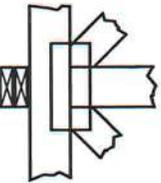
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



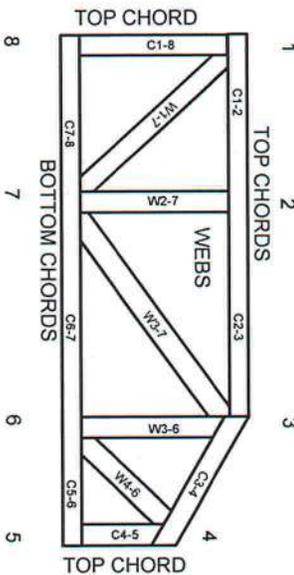
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TFP11: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

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



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988  
ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

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

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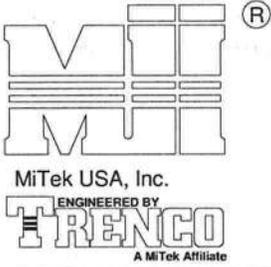
# General Safety Notes

## 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 Top 1 bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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. Gamber 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/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.



MITtek Engineering Reference Sheet: MIL-7473 rev. 5/19/2020



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

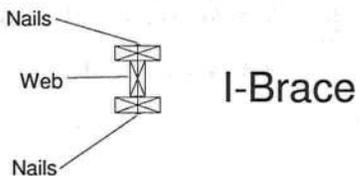
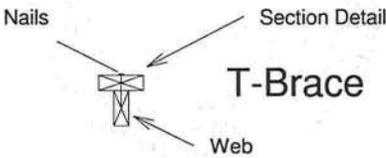
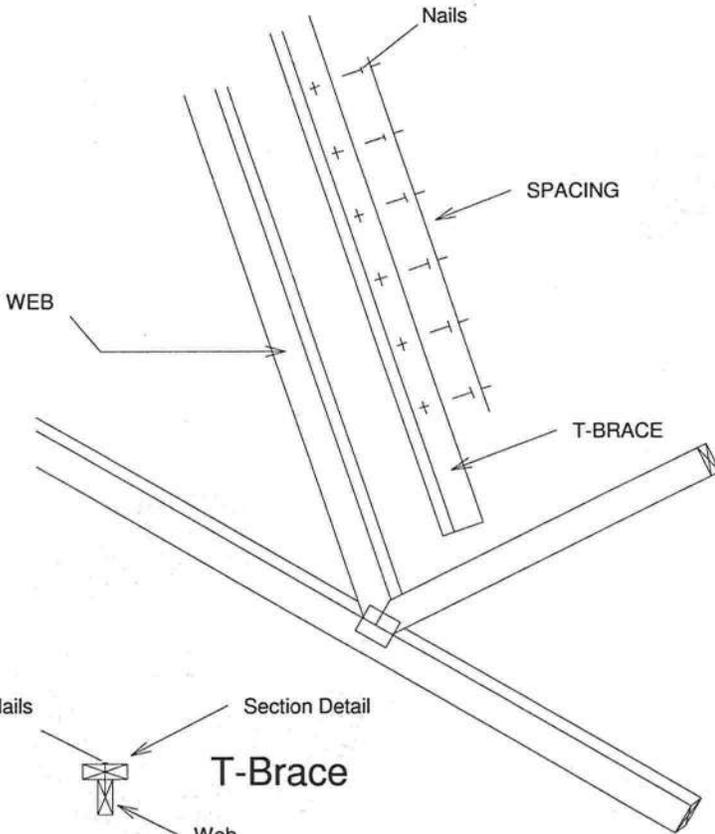
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

Brace Size for Two-Ply Truss

Specified Continuous Rows of Lateral Bracing

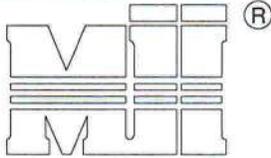
Web Size	1	2
2x3 or 2x4	2x4 T-Brace	2x4 I-Brace
2x6	2x6 T-Brace	2x6 I-Brace
2x8	2x8 T-Brace	2x8 I-Brace

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



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February 12, 2018



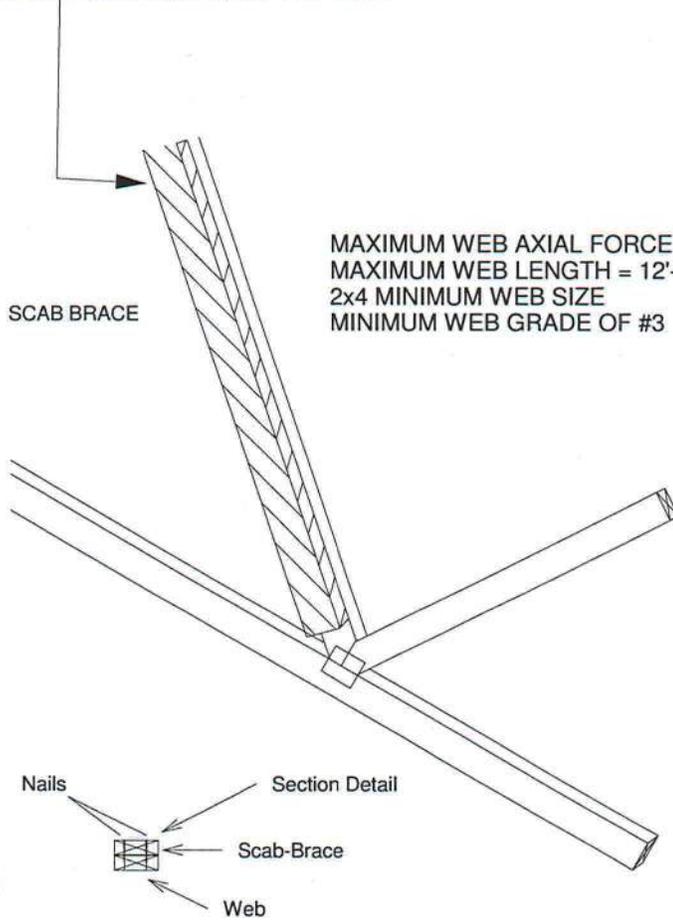
MiTek USA, Inc.



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.

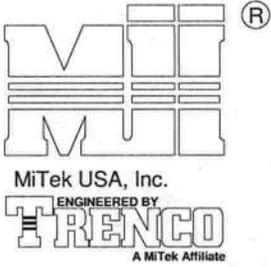


Scab-Brace must be same species grade (or better) as web member.

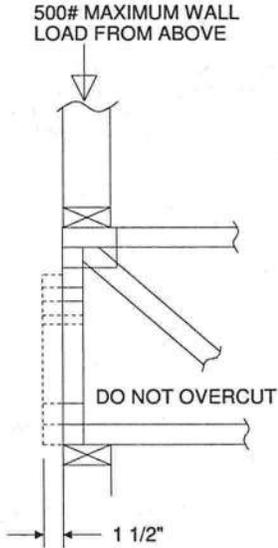


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Date:

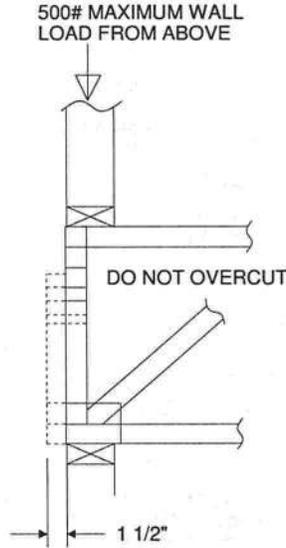
February 12, 2018



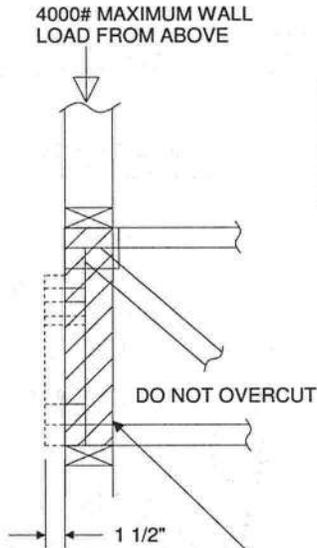
1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS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



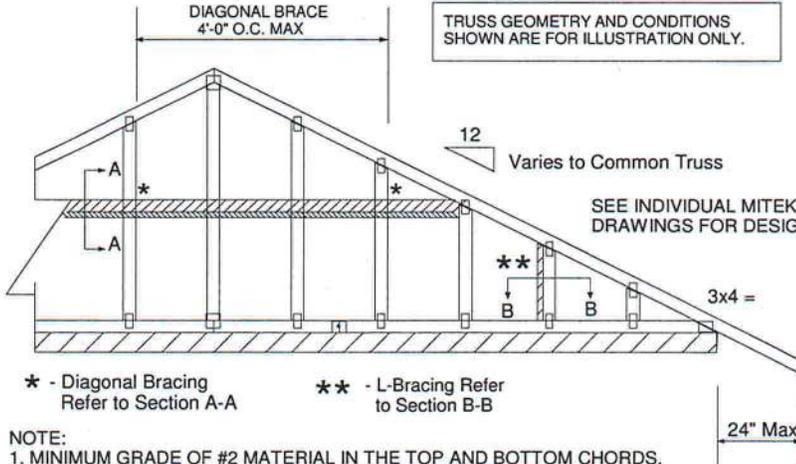
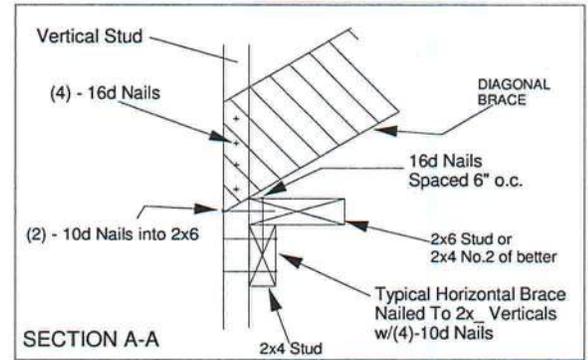
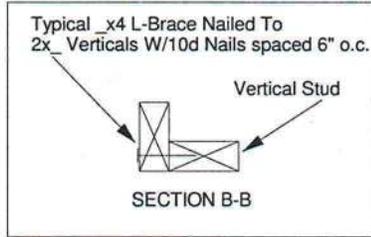
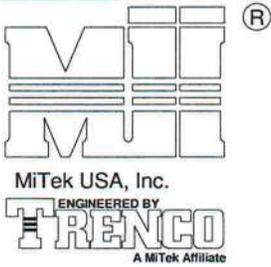
TRUSSES BUILT WITH 4x2 MEMBERS

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.



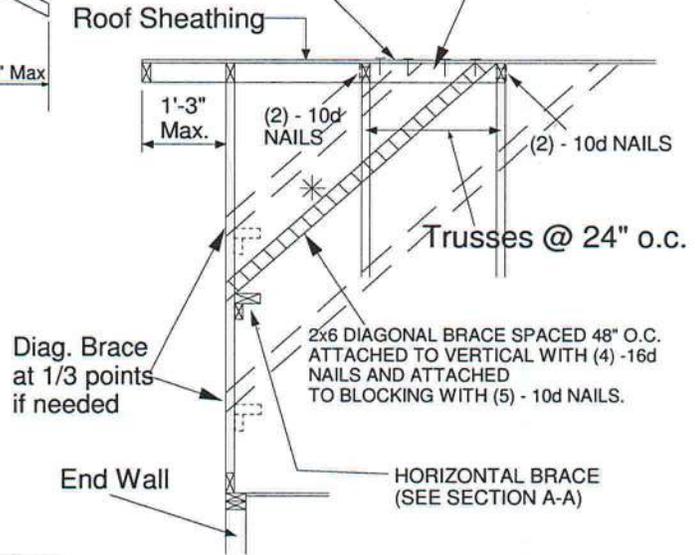
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 Date:

February 12, 2018



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:

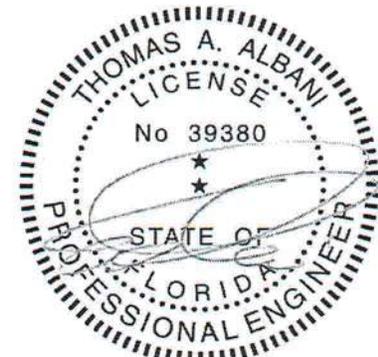
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF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

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

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

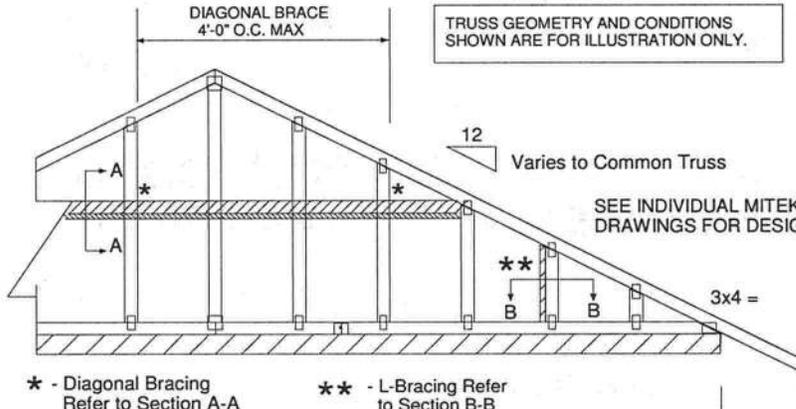
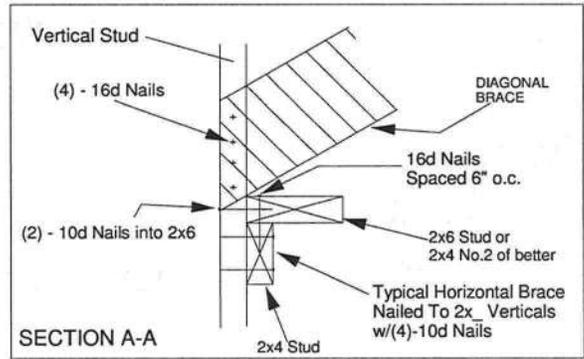
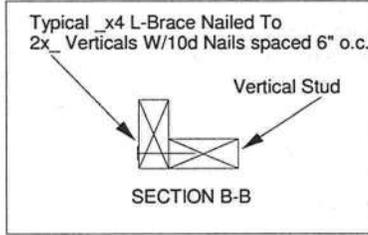
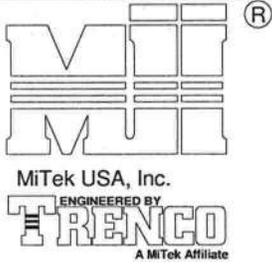
MAX MEAN ROOF HEIGHT = 30 FEET  
CATEGORY II BUILDING  
EXPOSURE D  
ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH  
ASCE 7-10 160 MPH  
DURATION OF LOAD INCREASE : 1.60

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



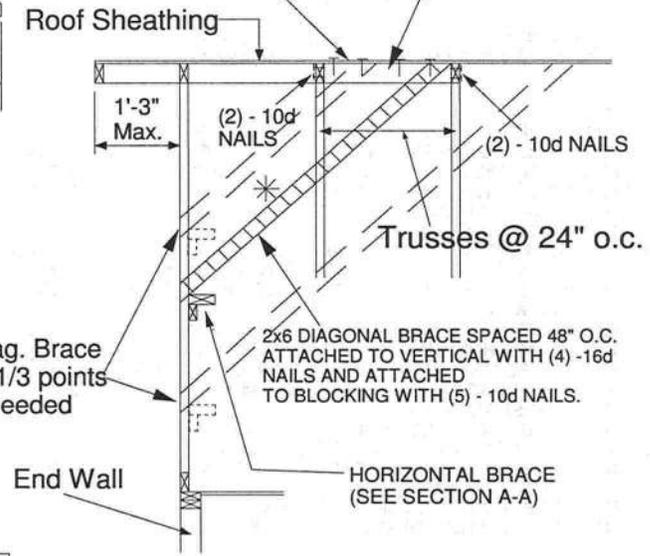
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Date:

February 12, 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. 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
2x4 SP No. 3 / Stud	12" O.C.	4-0-7	4-5-6	6-3-8	8-0-15	12-1-6
2x4 SP No. 3 / Stud	16" O.C.	3-8-0	3-10-4	5-5-6	7-4-1	11-0-1
2x4 SP No. 3 / Stud	24" O.C.	3-0-10	3-1-12	4-5-6	6-1-5	9-1-15

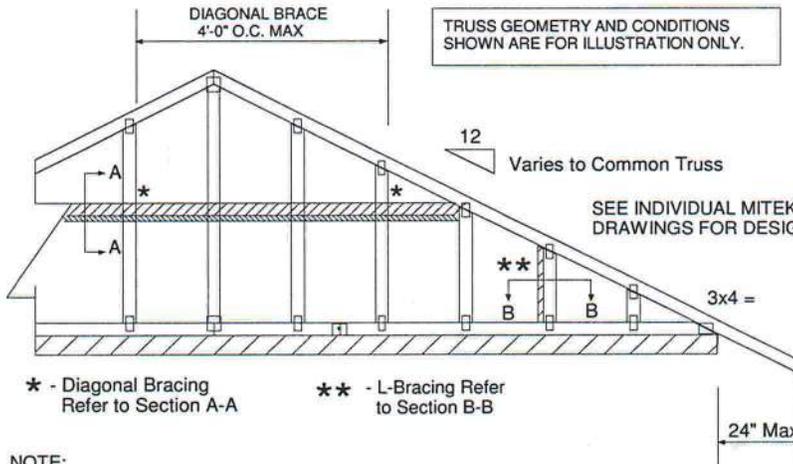
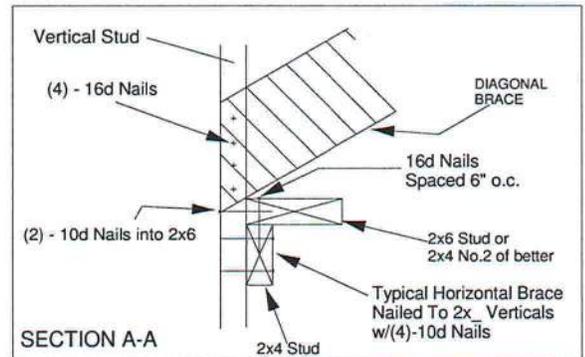
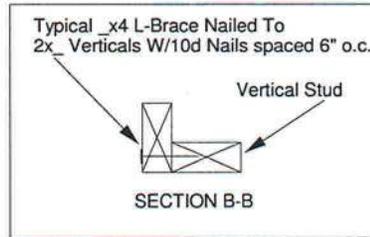
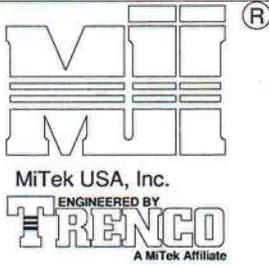
\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 l-braces attached to both edges. Fasten T and l braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

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

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

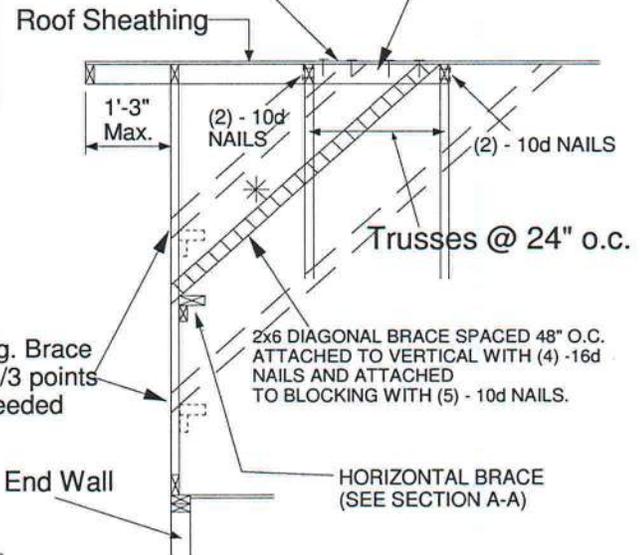


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 Date: February 12, 2018



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



\* - 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. 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	Maximum Stud Length					2 DIAGONAL BRACES AT 1/3 POINTS
		Without Brace	1x4 L-Brace	2x4 L-Brace	DIAGONAL BRACE		
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.

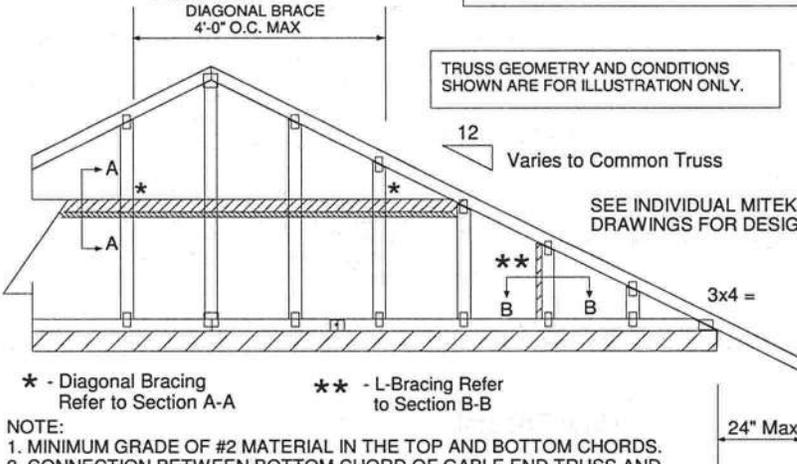
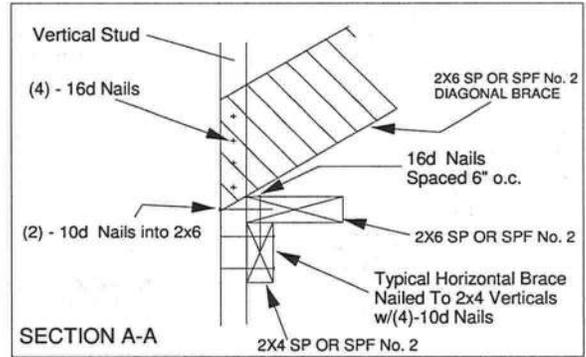
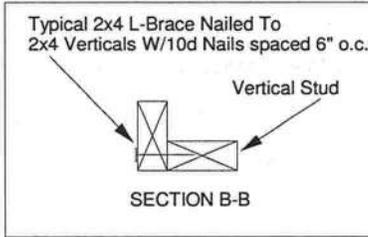
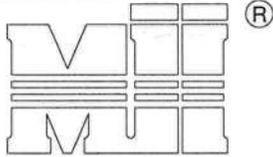
MAXIMUM WIND SPEED = 140 MPH  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 CATEGORY II BUILDING  
 EXPOSURE B or C  
 ASCE 7-98, ASCE 7-02, ASCE 7-05  
 DURATION OF LOAD INCREASE : 1.60

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



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 Date:

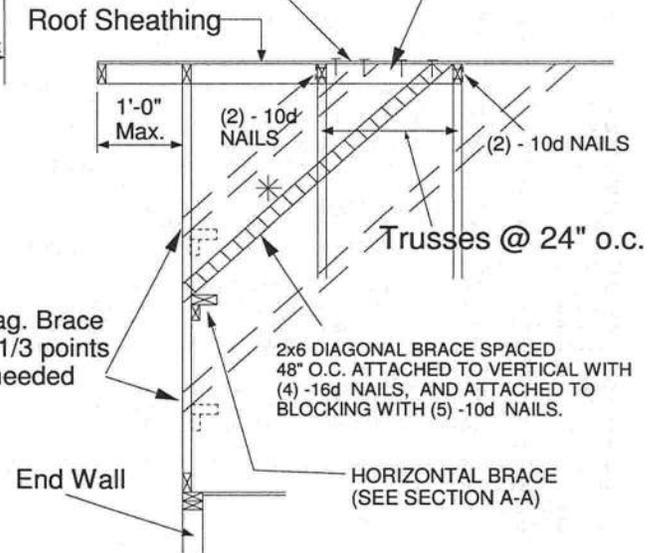
January 19, 2018



- 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")

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

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



Minimum Stud Size Species and Grade	Stud Spacing	Without Brace	2x4 L-Brace	DIAGONAL BRACE	2 DIAGONAL BRACES AT 1/3 POINTS
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 l-braces attached to both edges. Fasten T and l 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 l braces must be 2x4 SPF No. 2 or SP No. 2.

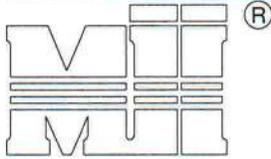
MAX MEAN ROOF HEIGHT = 30 FEET  
EXPOSURE D  
ASCE 7-10 170 MPH  
DURATION OF LOAD INCREASE : 1.60

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



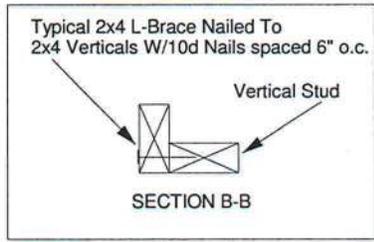
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6904 Parke East Blvd. Tampa FL 33610  
Date:

February 12, 2018

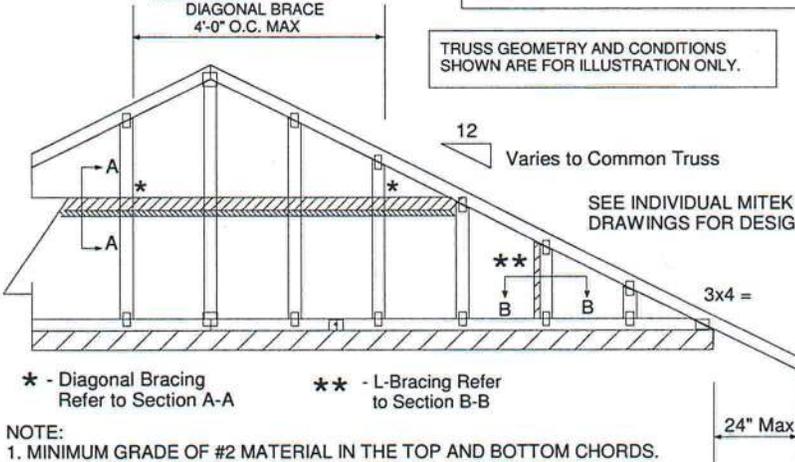
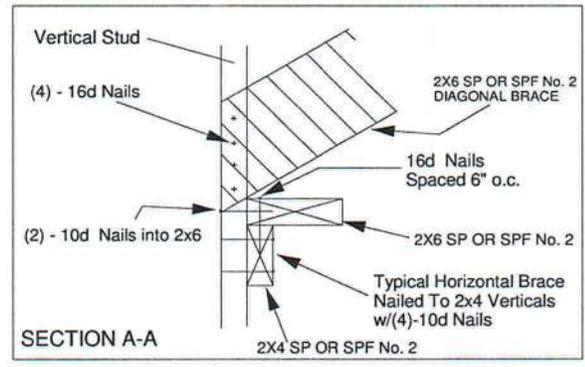


MiTek USA, Inc.  
ENGINEERED BY  
**TRENCO**

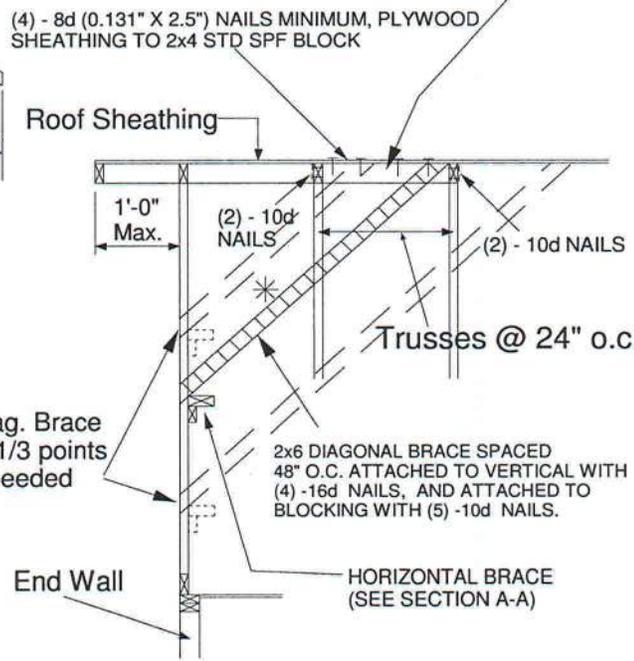
A MiTek Affiliate  
DIAGONAL BRACE  
4'-0" O.C. MAX



TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.



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.



\* - 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

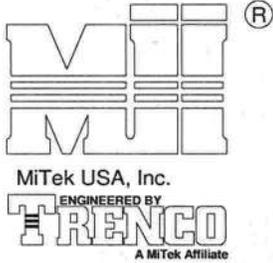
\* Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 6in o.c., with 3in minimum end distance. Brace must cover 90% of diagonal length. T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



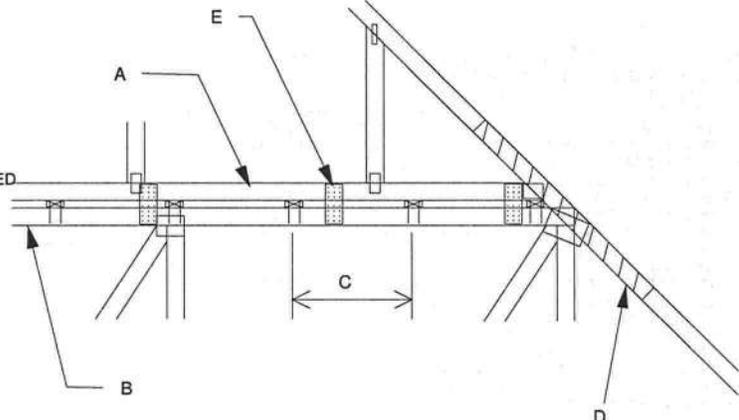
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6904 Parke East Blvd. Tampa FL 33610  
Date:  
**February 12, 2018**



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.

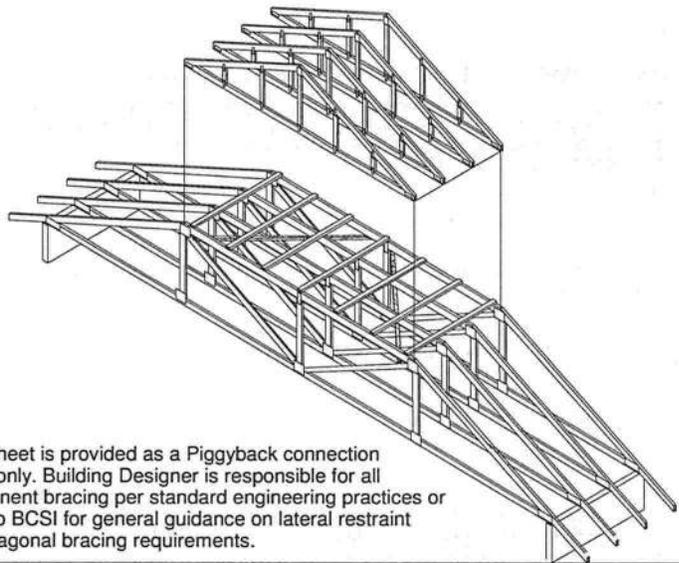
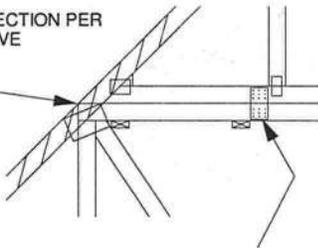
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) (0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.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

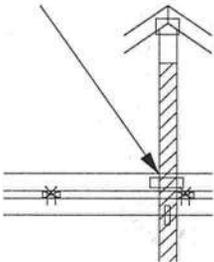
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.

SCAB CONNECTION PER NOTE D ABOVE



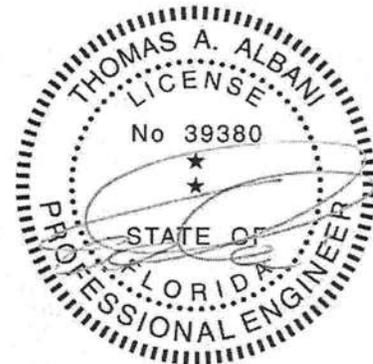
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

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:

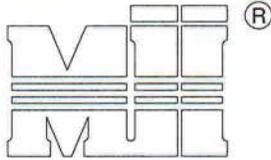
February 12, 2018

AUGUST 1, 2016

# STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

# MII-PIGGY-ALT 7-10

MiTek USA, Inc. Page 1 of 1



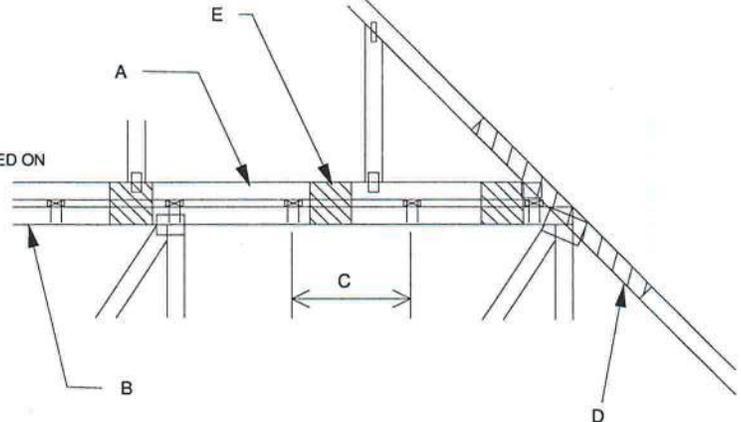
MiTek USA, Inc.



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

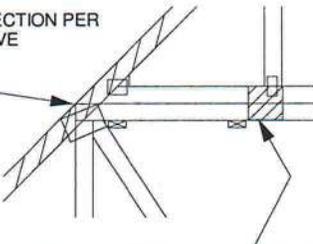
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0(0.131" X 3.5") TOE-NAILED.
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.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



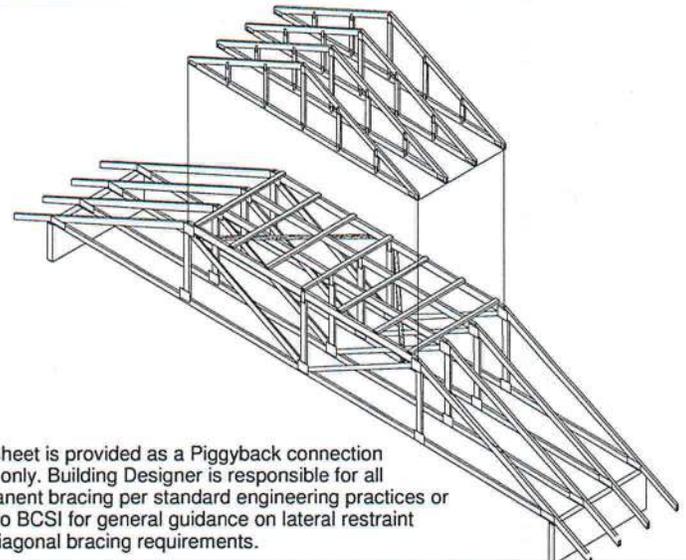
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

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

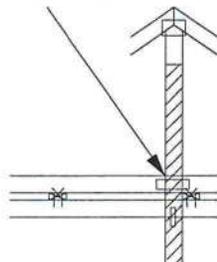


7" x 7" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 24" O.C. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)



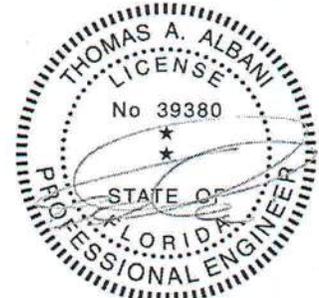
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



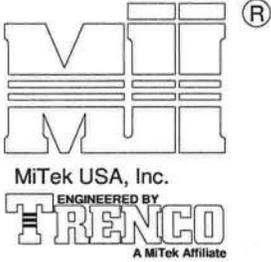
FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 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        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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January 19, 2018

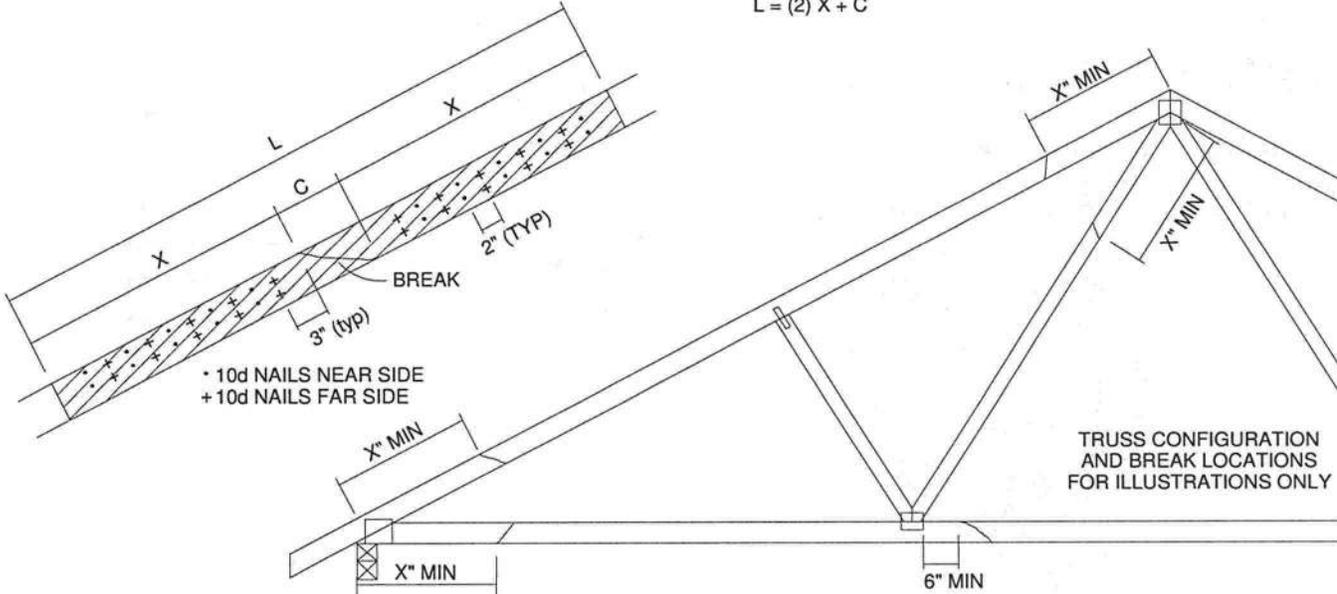


TOTAL NUMBER OF NAILS EACH SIDE OF BREAK *		X INCHES	MAXIMUM FORCE (lbs) 15% LOAD DURATION							
			SP		DF		SPF		HF	
2x4	2x6		2x4	2x6	2x4	2x6	2x4	2x6	2x4	2x6
20	30	24"	1706	2559	1561	2342	1320	1980	1352	2028
26	39	30"	2194	3291	2007	3011	1697	2546	1738	2608
32	48	36"	2681	4022	2454	3681	2074	3111	2125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

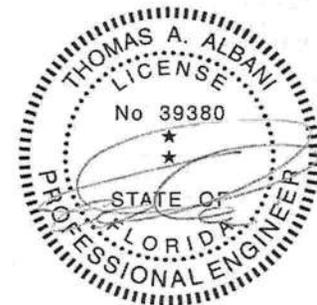


THE LOCATION OF THE BREAK MUST BE GREATER THAN OR EQUAL TO THE REQUIRED X DIMENSION FROM ANY PERIMETER BREAK OR HEEL JOINT AND A MINIMUM OF 6" FROM ANY INTERIOR JOINT (SEE SKETCH ABOVE)

DO NOT USE REPAIR FOR JOINT SPLICES

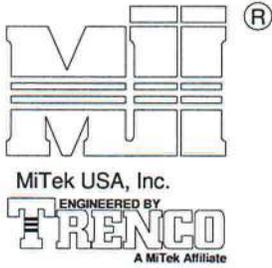
NOTES:

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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NOTES:

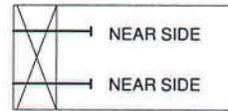
- TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.)
- THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
- 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

SIDE VIEW (2x3) 2 NAILS



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

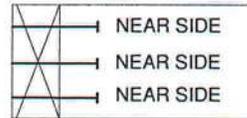
EXAMPLE:

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

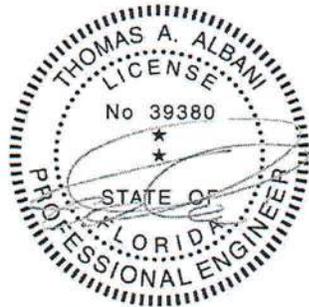
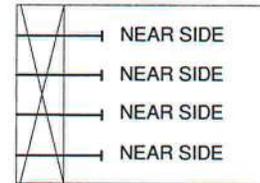
For load duration increase of 1.15:

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

SIDE VIEW (2x4) 3 NAILS

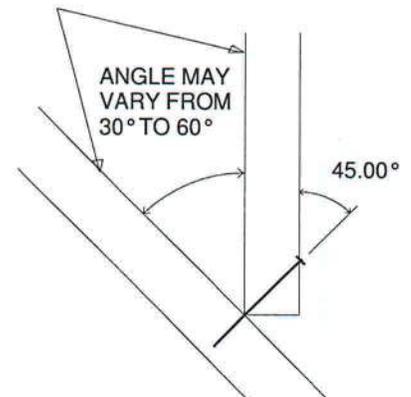
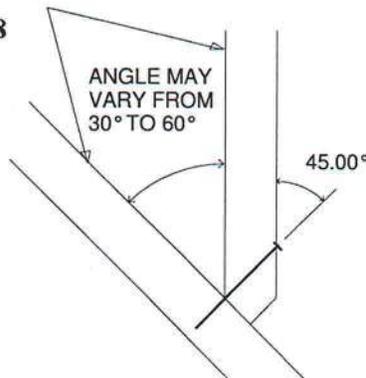
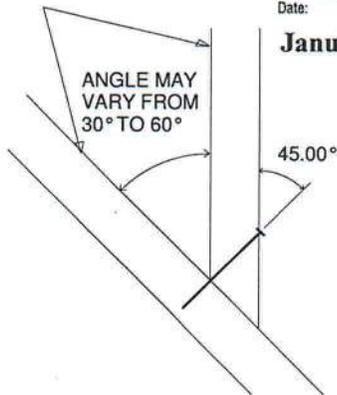


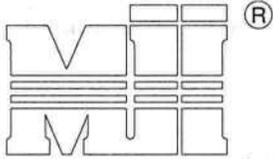
SIDE VIEW (2x6) 4 NAILS



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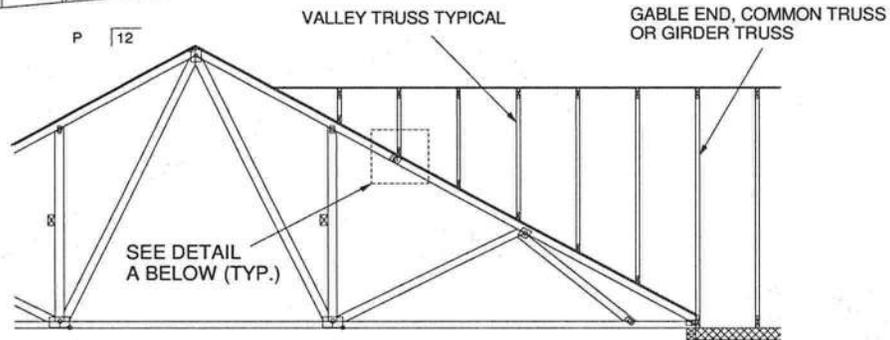
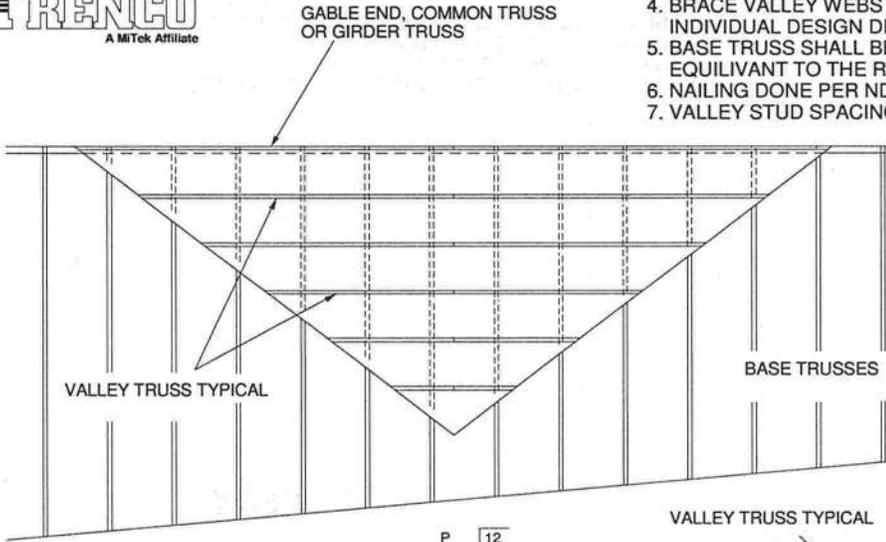




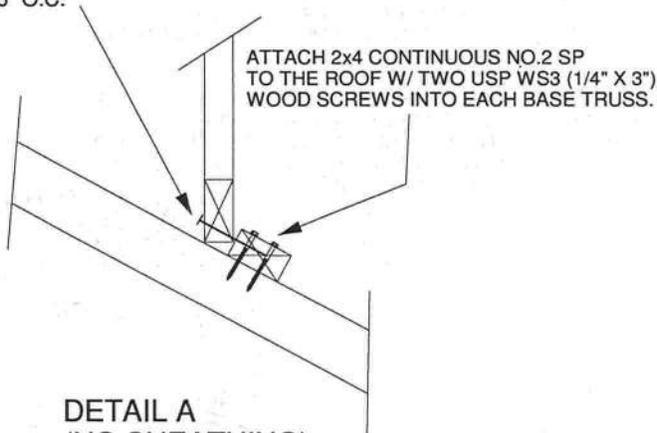
MiTek USA, Inc.  
ENGINEERED BY  
**TRENCO**  
A MiTek Affiliate

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 EQUIVANT 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.



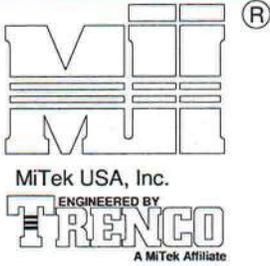
DETAIL A  
(NO SHEATHING)  
N.T.S.

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



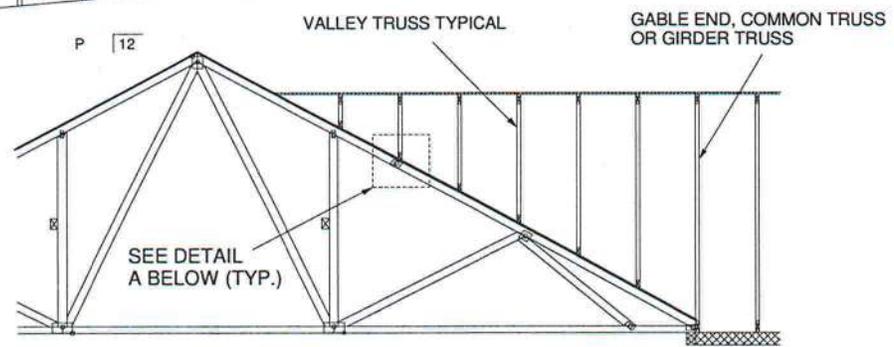
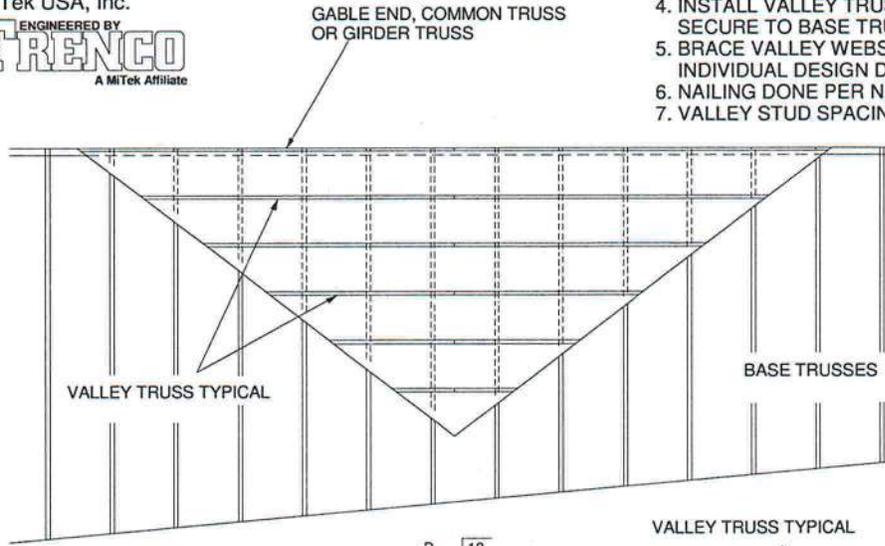
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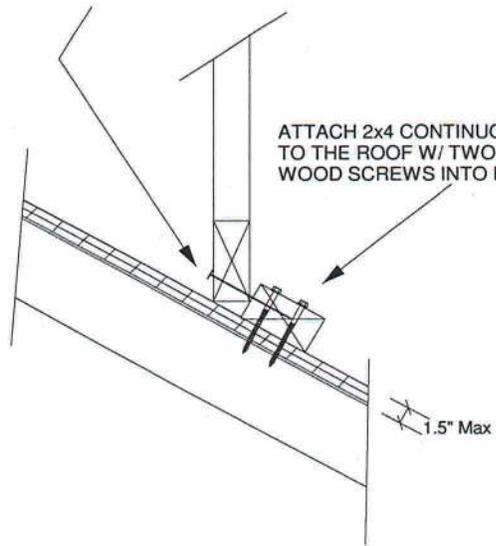


GENERAL SPECIFICATIONS

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.



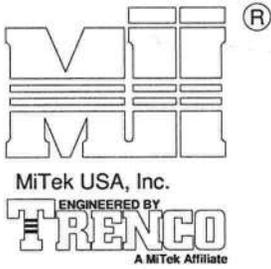
ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/ TWO USP WS45 (1/4" X 4.5") WOOD SCREWS INTO EACH BASE TRUSS.

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



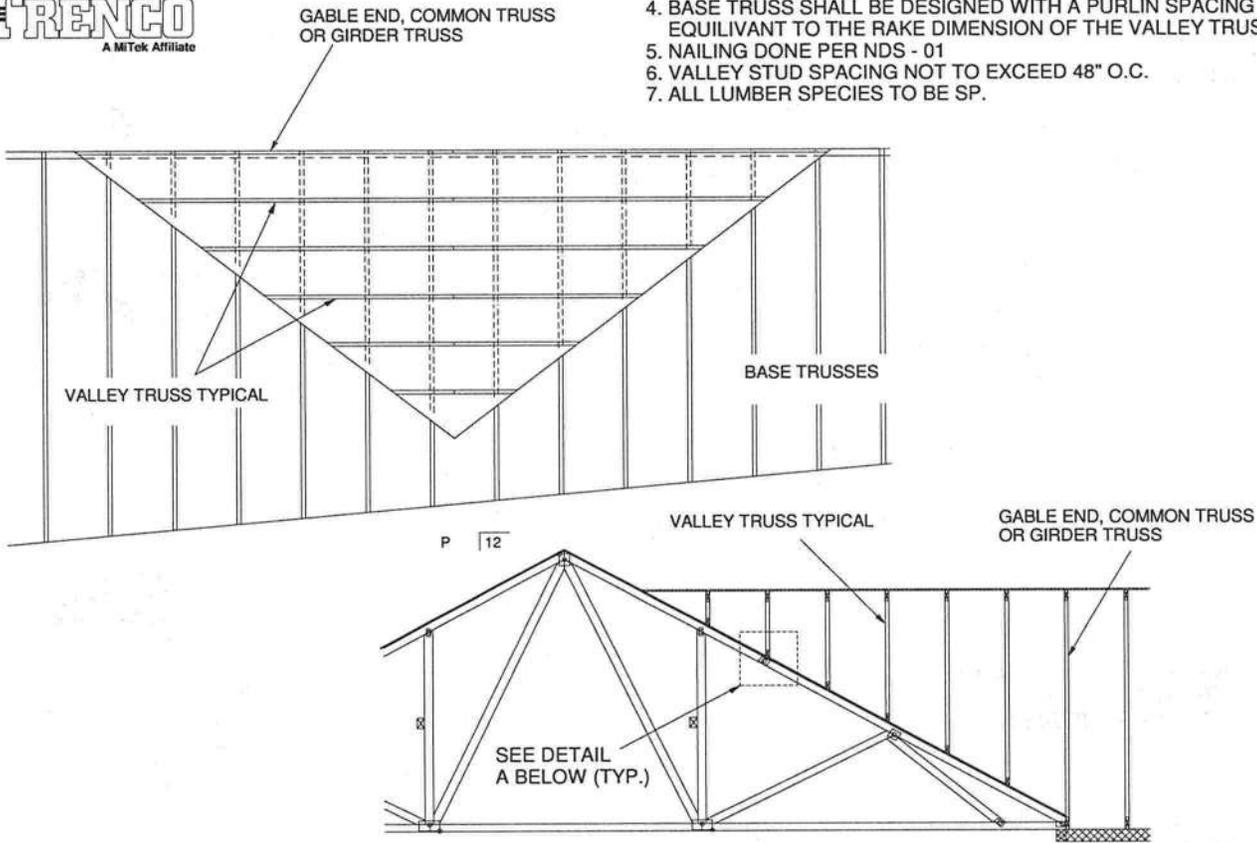
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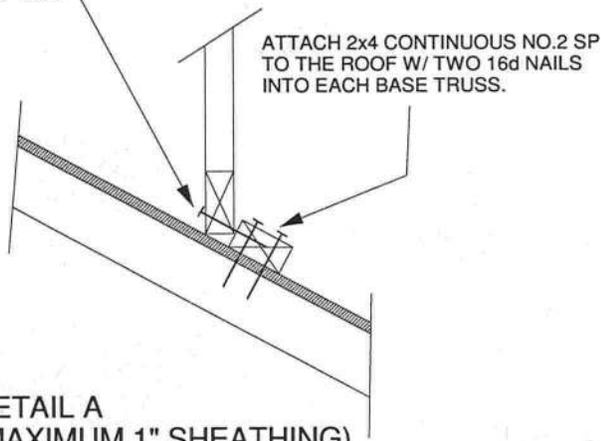


GENERAL SPECIFICATIONS

1. NAIL SIZE 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.

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



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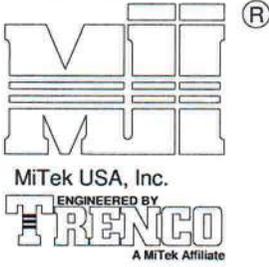
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AUGUST 1, 2016

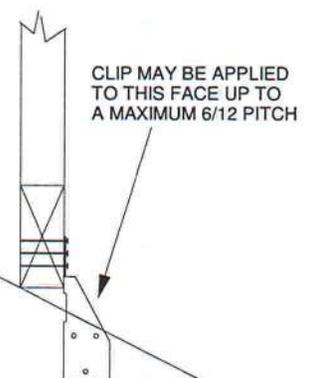
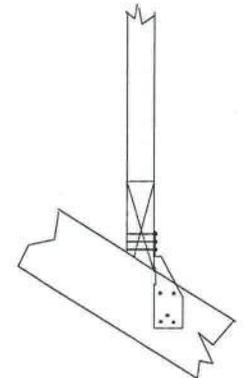
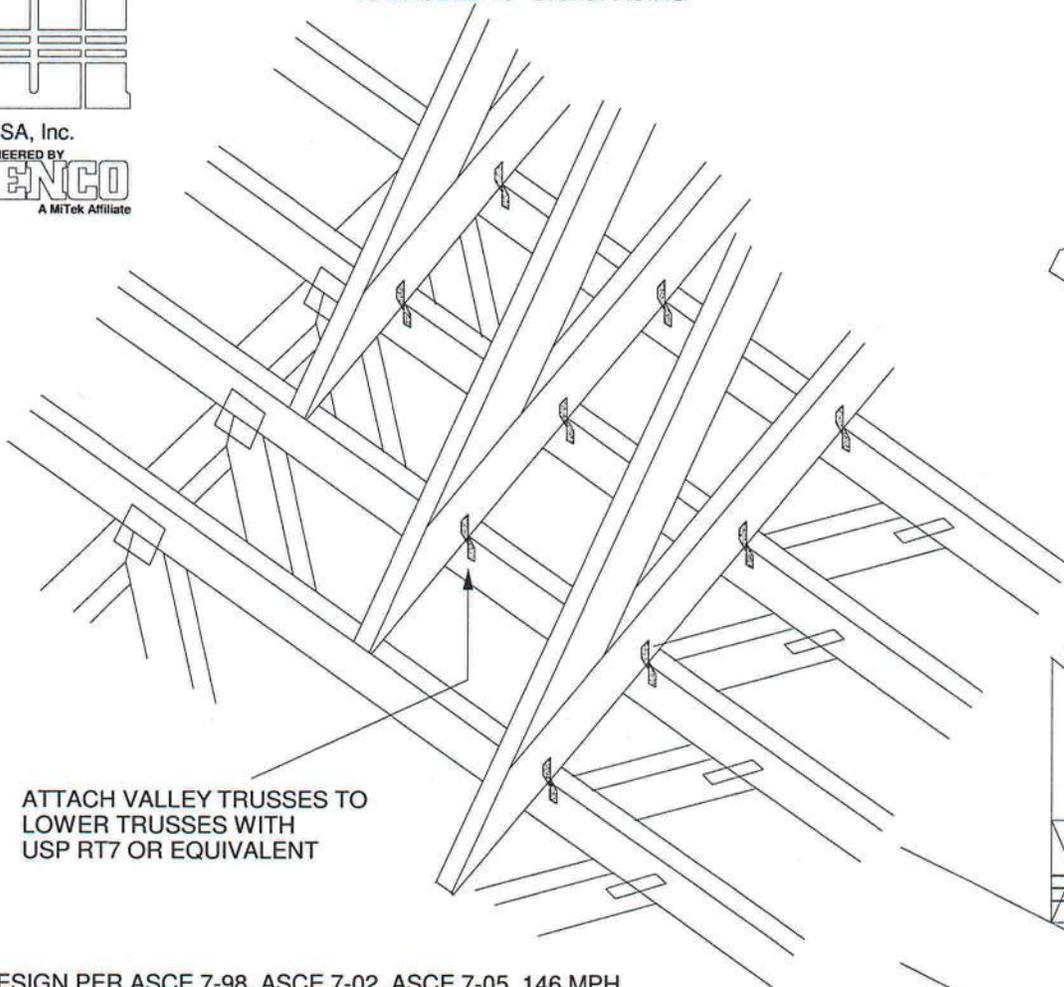
TRUSSED VALLEY SET DETAIL  
(HIGH WIND VELOCITY)

MII-VALLEY

MiTek USA, Inc. Page 1 of 1



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

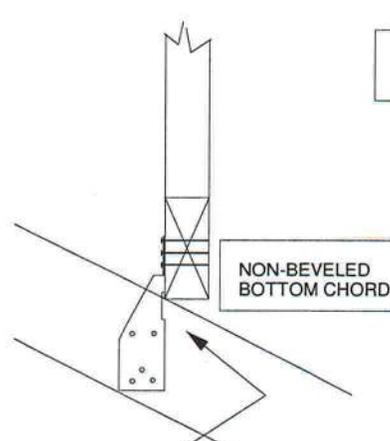


WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH  
 WIND DESIGN PER ASCE 7-10 160 MPH  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 CATEGORY II BUILDING  
 EXPOSURE B or C  
 WIND DURATION OF LOAD INCREASE : 1.6  
 MAX TOP CHORD TOTAL LOAD = 50 PSF  
 MAX SPACING = 24" O.C. (BASE AND VALLEY)

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

NOTES:

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

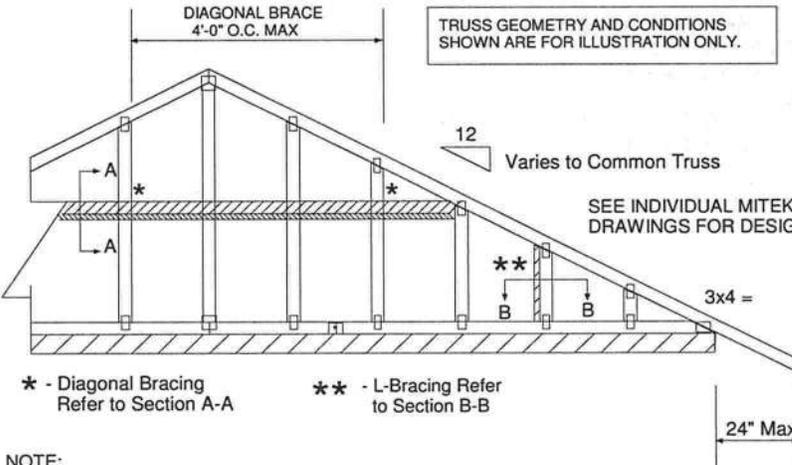
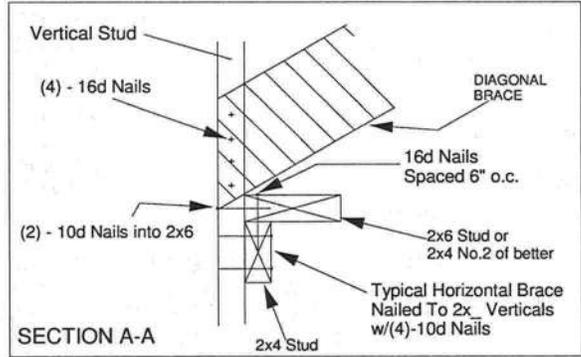
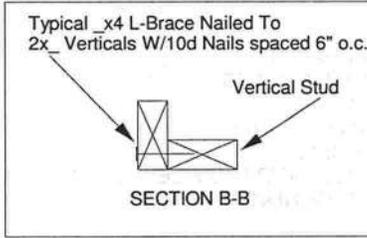
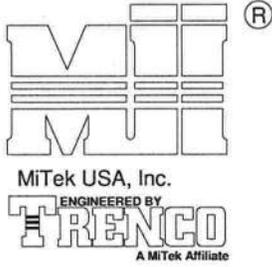


CLIP MUST BE APPLIED TO THIS FACE WHEN PITCH EXCEEDS 6/12. (MAXIMUM 12/12 PITCH)



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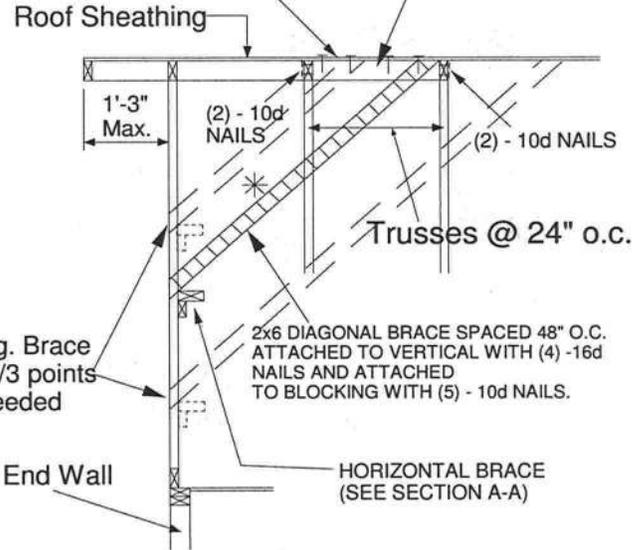
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- NOTE:
1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT 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 l-braces attached to both edges. Fasten T and l braces to narrow edge of web with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

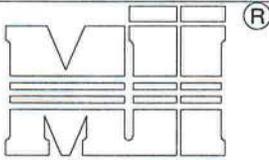
MAXIMUM WIND SPEED = 146 MPH  
 MAX MEAN ROOF HEIGHT = 30 FEET  
 CATEGORY II BUILDING  
 EXPOSURE B or C  
 ASCE 7-98, ASCE 7-02, ASCE 7-05  
 DURATION OF LOAD INCREASE : 1.60

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



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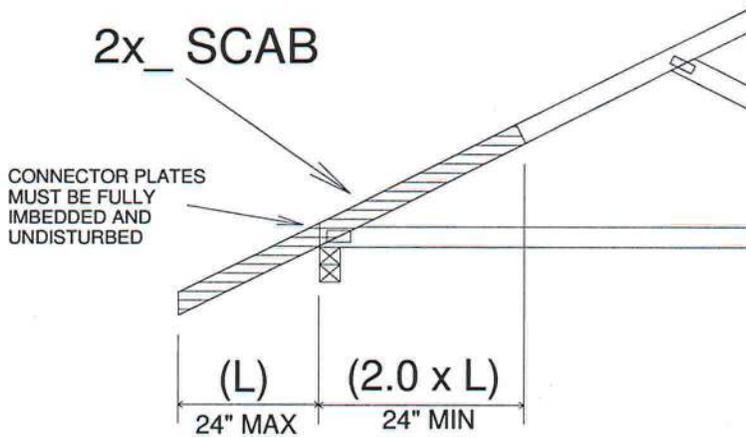


TRUSS CRITERIA:

- 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:

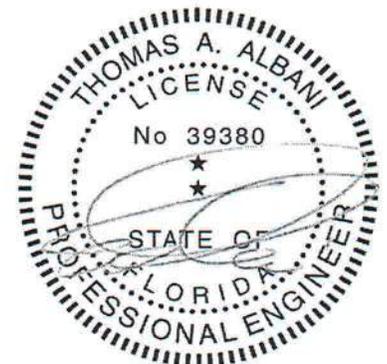
1. ATTACH 2x SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF TRUSS WITH TWO ROWS OF 10d (0.131" X 3") SPACED 6" O.C.
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. WHEN NAILING THE SCABS, THE USE OF A BACKUP WEIGHT IS RECOMMENDED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



IMPORTANT

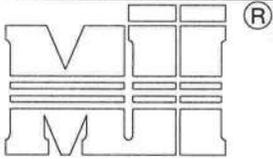
This detail to be used only with trusses (spans less than 40') spaced 24" o.c. maximum and having pitches between 4/12 and 12/12 and total top chord loads not exceeding 50 psf. Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES



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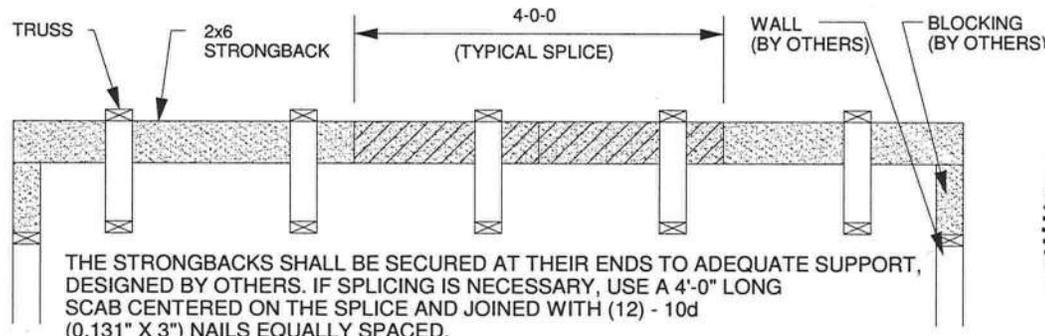
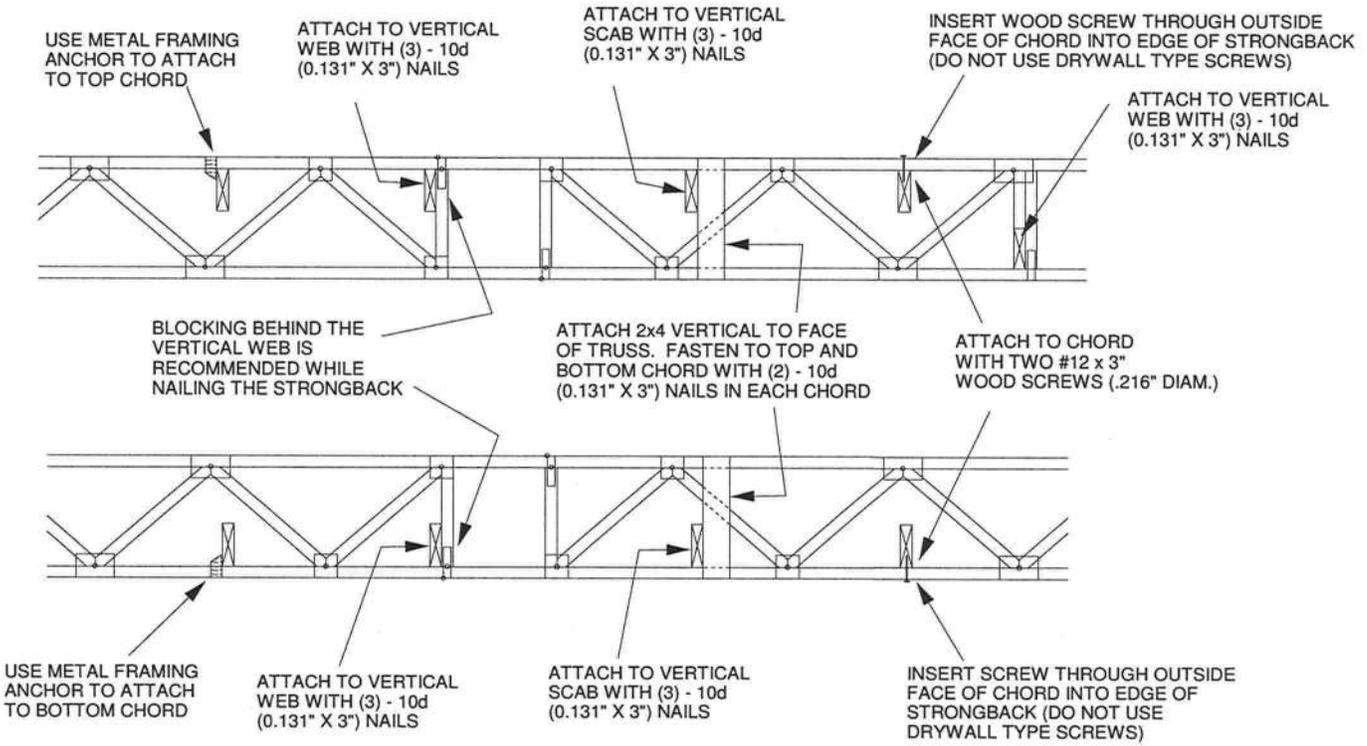
February 12, 2018



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.



THE STRONGBACKS SHALL BE SECURED AT THEIR ENDS TO ADEQUATE SUPPORT, DESIGNED BY OTHERS. IF SPLICING IS NECESSARY, USE A 4'-0" LONG SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d (0.131" X 3") NAILS EQUALLY SPACED.

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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Date:

February 12, 2018

