

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

RE: 2544176 - SIMQUE - LOT 3 PLL

MiTek USA, Inc.

Site Information:

6904 Parke East Blvd.

Customer Info: Aaron Simque Homes Project Name: Spec House Model: 1995 Modified, FL 33610-4115

Lot/Block: 13

Subdivision: The Preserve at Laurel Lake

Address: TBD, TBD

City: Columbia Cty

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

State: FL

Name:

License #:

Address:

City:

State:

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

Design Code: FBC2017/TPI2014

Design Program: MiTek 20/20 8.2

Date

Wind Code: ASCE 7-10

Wind Speed: 130 mph

Roof Load: 37.0 psf

Floor Load: N/A psf

This package includes 30 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.

| 1 T21860208 CJ01 11/11/20 23 T21860230 T10 2 T21860209 CJ03 11/11/20 24 T21860231 V01 3 T21860210 CJ05 11/11/20 25 T21860232 V02 4 T21860211 EJ01 11/11/20 26 T21860233 V03 5 T21860212 EJ02 11/11/20 27 T21860234 V04 6 T21860213 EJ03 11/11/20 28 T21860235 V05 7 T21860214 HJ08 11/11/20 29 T21860236 V06 8 T21860215 HJ10 11/11/20 30 T21860237 V07 9 T21860216 PB01 11/11/20 10 T21860217 PB02 11/11/20 11 T21860218 PB02G 11/11/20 12 T21860219 T01 11/11/20 13 T21860220 T02 11/11/20 14 T21860221 T03 11/11/20 15 T21860222 T04 11/11/20 16 T21860224 T06 11/11/20 17 T21860225 T07 11/11/20 18 T21860226 T08 11/11/20 20 T21860227 T08G 11/11/20 21 T21860227 T08G 11/11/20 21 T21860227 T08G 11/11/20 21 T21860227 T08G 11/11/20 | No.  | Seal#   | Truss Name  | Date   | No.                              | Seal#  | Truss Name                             |
|--|--|---|---|--|----------------------------------|--|--|
| 22 T21860229 T09G 11/11/20   | 12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21 | T21860209<br>T21860210<br>T21860211<br>T21860213<br>T21860214<br>T21860215<br>T21860216<br>T21860217<br>T21860219<br>T21860220<br>T21860221<br>T21860221<br>T21860221<br>T21860223<br>T21860224<br>T21860225<br>T21860227<br>T21860227<br>T21860227 | CJ03<br>CJ05<br>EJ01<br>EJ02<br>EJ03<br>HJ08<br>HJ10<br>PB01<br>PB02<br>PB02G<br>T01<br>T02<br>T03<br>T04<br>T05<br>T06<br>T07<br>T08<br>T08<br>T09 | 11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20<br>11/11/20 | 24<br>25<br>26<br>27<br>28<br>29 | T21860231<br>T21860232<br>T21860233<br>T21860234<br>T21860235<br>T21860236 | V01<br>V02<br>V03<br>V04<br>V05<br>V06 |



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

Truss Design Engineer's Name: Velez, Joaquin

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

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



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

November 11,2020

Job Truss Truss Type Qty SIMQUE - LOT 3 PLL T21860208 2544176 **CJ01** Jack-Open 1 Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:23 2020 Page 1 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-tY44JSqOIqF6m8liDmgpa2pDSQ\_E?MwpJMNok5yKJpU -1-6-0 1-0-0 Scale = 1:9.4 7.00 12 1-0-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL. (loc) **l/defl** L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.17 Vert(LL) 0.00 >999 240 MT20 244/190 TCDL 7.0 Lumber DOL 1.25 BC 0.04 Vert(CT) 0.00 >999 180 BCLL 0.0 Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 2 n/a n/a

LUMBER-

BCDL

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

10.0

BRACING-

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

Weight: 6 lb

FT = 20%

REACTIONS.

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

Code FBC2017/TPI2014

Max Horz 2=64(LC 12)

Max Uplift 3=-5(LC 1), 2=-105(LC 12), 4=-25(LC 19) Max Grav 3=8(LC 16), 2=179(LC 1), 4=26(LC 16)

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

### NOTES-

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

Matrix-MP

- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 4 except (jt=lb) 2=105.



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

November 11,2020

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 bucking 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see \_\_\_\_\_\_ATMITTHI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job Truss Type Qty SIMQUE - LOT 3 PLL Truss Ply T21860209 2544176 CJ03 Jack-Open | Job Reference (optional) | 8.240 s Mar | 9 2020 MiTek Industries, Inc. | Wed Nov 11 07:50:24 2020 | Page 1 Jacksonville, FL - 32244, Builders FirstSource (Jacksonville, FL), ID:RGwSt4cPREnm5p9yfgzNgAycgdx-LkeSXnr038NzNIsunTB27GMOBqJLkpAyY07MGYyKJpT -1-6-0 1-6-0 Scale = 1:15.3 7.00 12 0-5-4 3x4 = PLATES GRIP LOADING (psf) SPACING-2-0-0 CSI. DEFL (loc) I/defl 1/d Plate Grip DOL TC BC 240 244/190 TCLL 20.0 1.25 0.17 Vert(LL) 0.01 4-7 >999 MT20 1.25 -0.01 >999 180 TCDL 7.0 Lumber DOL 0.11 Vert(CT) 4-7 0.0 \* 0.00 BCLL Rep Stress Incr YES WB Horz(CT) 0.00 3 n/a n/a Code FBC2017/TPI2014 Weight: 12 lb FT = 20% BCDL 10.0 Matrix-MP BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

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

Max Horz 2=120(LC 12)

Max Uplift 3=-62(LC 12), 2=-89(LC 12), 4=-26(LC 9) Max Grav 3=66(LC 19), 2=210(LC 1), 4=51(LC 3)

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

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2, 4.



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

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

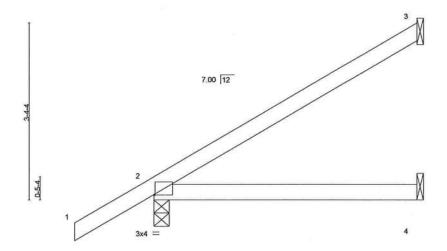
Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

November 11,2020

MARNING - 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 uccliages with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Scale = 1:21.0



5-0-0 5-0-0

| Plate Off | sets (X,Y)- [ | 2:0-0-4,0-0-2]  |        |       |      |   |       |       |        |     |               |          |
|-----------|---------------|-----------------|--------|-------|------|---|-------|-------|--------|-----|---------------|----------|
| LOADIN    | G (psf)       | SPACING-        | 2-0-0  | CSI.  |      | DEFL.                                   | in    | (loc) | I/defl | L/d | PLATES        | GRIP     |
| TCLL      | 20.0          | Plate Grip DOL  | 1.25   | TC    | 0.34 | Vert(LL)                                | 0.08  | 4-7   | >711   | 240 | MT20          | 244/190  |
| CDL       | 7.0           | Lumber DOL      | 1.25   | BC    | 0.35 | Vert(CT)                                | 0.07  | 4-7   | >820   | 180 | 1.7537973904  |          |
| BCLL      | 0.0 *         | Rep Stress Incr | YES    | WB    | 0.00 | Horz(CT)                                | -0.01 | 3     | n/a    | n/a |               |          |
| BCDL      | 10.0          | Code FBC2017/T  | PI2014 | Matri | x-MP | 100000000000000000000000000000000000000 |       |       |        |     | Weight: 19 lb | FT = 20% |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

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

Max Horz 2=177(LC 12)

Max Uplift 3=-113(LC 12), 2=-100(LC 12), 4=-47(LC 9) Max Grav 3=124(LC 19), 2=276(LC 1), 4=89(LC 3)

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

### NOTES

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4 except (jt=lb) 3=113.



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

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

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

November 11,2020

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



SIMQUE - LOT 3 PLL Job Truss Truss Type Qty T21860211 10 EJ01 Jack-Partial 2544176 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:25 2020 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:RGwSt4cPREnm5p9yfgzNgAycgdx-pxCqk7sfqSWq?SR4LBiHgTuPAEVeTGQ5ngsvo\_yKJpS -1-6-0 1-6-0 Scale = 1:26.8 7.00 12 4-1-5 D-5-4 4 4x4 = DEFL. I/defl L/d PLATES GRIP LOADING (psf) SPACING-2-0-0 CSI. 244/190 Plate Grip DOL 1.25 0.79 Vert(LL) 0.33 4-7 >251 240 MT20 TCLL 20.0 TC Vert(CT) 1.25 BC 0.75 0.29 4-7 >292 180 TCDL 7.0 Lumber DOL WB 0.00 Horz(CT) -0.02 3 n/a BCLL 0.0 Rep Stress Incr YES Weight: 25 lb FT = 20% BCDL 10.0 Code FBC2017/TPI2014 Matrix-MS BRACING-TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins. TOP CHORD 2x4 SP No.2

**BOT CHORD** 

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

BOT CHORD REACTIONS.

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

Max Horz 2=233(LC 12)

2x4 SP No.2

Max Uplift 3=-163(LC 12), 2=-115(LC 12), 4=-66(LC 9) Max Grav 3=179(LC 19), 2=346(LC 1), 4=127(LC 3)

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

### NOTES.

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 3=163, 2=115.



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November 11,2020

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20501



Ply SIMOUE - LOT 3 PLL Job Truss Truss Type Qty T21860212 2544176 EJ02 Jack-Partial 1 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:26 2020 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:RGwSt4cPREnm5p9yfgzNgAycgdx-I7mDyTtHblehdc0GuuDWChRb3esDCjgF?KcTLQyKJpR Scale = 1:26.8 7.00 12 0-5-4 6 2x4 || 4-8-8 Plate Offsets (X,Y)-- [3:0-4-0,0-2-8] LOADING (psf) SPACING-CSI. DEFL PLATES GRIP 2-0-0 in (loc) I/defl 1 /d Plate Grip DOL TCLL 20.0 1.25 TC 0.72 Vert(LL) 0.23 3-5 >362 240 244/190 MT20 TCDL 7.0 Lumber DOL 1.25 BC 0.66 Vert(CT) -0.303-5 >279 180 0.0 Rep Stress Incr WB 0.00 0.17 BCLL YES 5 Horz(CT) n/a n/a BCDL Code FBC2017/TPI2014 FT = 20% 10.0 Matrix-MR Weight: 27 lb

LUMBER-

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

2x4 SP No.2 \*Except\*

3-6: 2x4 SP No.3

BRACING-

TOP CHORD **BOT CHORD**  Structural wood sheathing directly applied or 6-0-0 oc purlins.

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

REACTIONS.

(size) 4=Mechanical, 2=0-3-8, 5=Mechanical

Max Horz 2=233(LC 12)

Max Uplift 4=-144(LC 12), 2=-113(LC 12), 5=-28(LC 12) Max Grav 4=174(LC 19), 2=351(LC 1), 5=123(LC 3)

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

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 4=144, 2=113.



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

November 11,2020

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SIMQUE - LOT 3 PLL Truss Type Qty Job Truss Ply T21860213 2544176 EJ03 Jack-Open Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:27 2020 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. ID:RGwSt4cPREnm5p9yfgzNgAycgdx-mJKb9puvM3mYFmbTScklluztF1JyxAlOE\_L0tsyKJpQ -1-6-0 1-6-0 5-0-0 2x4 || Scale = 1:21.0 7.00 12 0-1-12 0-5-4 6 3×4 11 5-0-0 PLATES GRIP LOADING (psf) SPACING-2-0-0 CSI. DEFI in (loc) I/defi I/d244/190 TCLL 20.0 Plate Grip DOL 1.25 TC 0.31 Vert(LL) -0.036-9 >999 240 MT20 -0.05 >999 180 TCDL 7.0 Lumber DOL 1 25 BC 0.25 Vert(CT) 6-9 BCLL 0.0 Rep Stress Incr YES WR 0.04 Horz(CT) 0.01 2 n/a n/a FT = 20% Code FBC2017/TPI2014 Weight: 23 lb BCDL 10.0 Matrix-MP

LUMBER-

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

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

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

REACTIONS.

(size) 2=0-3-8, 6=Mechanical

Max Horz 2=177(LC 12)

Max Uplift 2=-94(LC 12), 6=-125(LC 12) Max Grav 2=268(LC 1), 6=194(LC 19)

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

### NOTES-

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 6=125.



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

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Job Truss Truss Type Qty Ply SIMQUE - LOT 3 PLL T21860214 2544176 **HJ08** Diagonal Hip Girder 1 Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:28 2020 Page 1 7-0-2 Scale = 1:20.7 2x4 || 5 4.95 12 2x4 > 0-3-8 0-5-4 3x6 = 63x4 LOADING (psf) SPACING-2-0-0 CSI. DEFL. (loc) I/defl L/d **PLATES** GRIP TCII 20.0 Plate Grip DOL 1 25 TC 0.48 Vert(LL) 0.06 7-10 >999 240 MT20 244/190 TCDL BC 0.36 -0.10 7.0 Lumber DOL 1.25 Vert(CT) 7-10 >828 180 BCLL 0.0 Rep Stress Incr NO WB 0.07 Horz(CT) 0.00 2 n/a n/a Code FBC2017/TPI2014 FT = 20%BCDL 10.0 Matrix-MS Weight: 34 lb LUMBER-BRACING-TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins,

BOT CHORD

except end verticals.

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

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

2x4 SP No.3 WEBS

REACTIONS.

(size) 2=0-4-9, 6=Mechanical Max Horz 2=176(LC 26)

Max Uplift 2=-264(LC 4), 6=-201(LC 8) Max Grav 2=390(LC 1), 6=245(LC 1)

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

TOP CHORD 2-3=-335/172 2-7=-258/252 BOT CHORD

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=264, 6=201.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 84 lb down and 76 lb up at 1-6-1, 84 lb down and 76 lb up at 1-6-1, and 103 lb down and 61 lb up at 4-4-0, and 103 lb down and 61 lb up at 4-4-0 on top chord and 26 lb down and 54 lb up at 1-6-1, 26 lb down and 54 lb up at 1-6-1, and 19 lb down and 34 lb up at 4-4-0, and 19 lb down and 34 lb up at 4-4-0 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

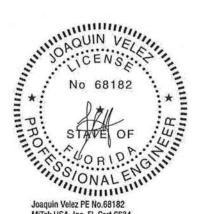
### LOAD CASE(S) Standard

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

Vert: 1-4=-54, 4-5=-54, 6-8=-20

Concentrated Loads (lb)

Vert: 14=-4(F=-2, B=-2)



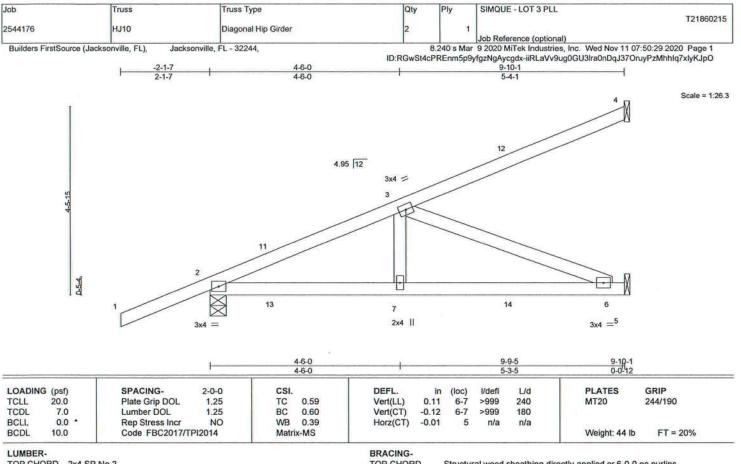
Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

November 11,2020

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





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

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

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

REACTIONS.

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

Max Horz 2=233(LC 8)

Max Uplift 4=-151(LC 8), 2=-410(LC 4), 5=-280(LC 5) Max Grav 4=150(LC 1), 2=526(LC 1), 5=298(LC 1)

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

TOP CHORD 2-3=-732/530

BOT CHORD 2-7=-607/607, 6-7=-607/607 WEBS 3-7=-143/280, 3-6=-652/652

### NOTES-

- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) Refer to girder(s) for truss to truss connections.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=151, 2=410, 5=280.
- 6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 84 lb down and 76 lb up at 1-6-1, 84 lb down and 76 lb up at 1-6-1, 103 lb down and 61 lb up at 4-4-0, 103 lb down and 61 lb up at 4-4-0, and 135 lb down and 121 lb up at 7-1-15, and 135 lb down and 121 lb up at 7-1-15 on top chord, and 58 lb down and 54 lb up at 1-6-1, 58 lb down and 54 lb up at 1-6-1, 20 lb down and 34 lb up at 4-4-0, and 42 lb down and 62 lb up at 7-1-15, and 42 lb down and 62 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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=-4(F=-2, B=-2) 12=-74(F=-37, B=-37) 14=-57(F=-29, B=-29)

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

November 11,2020

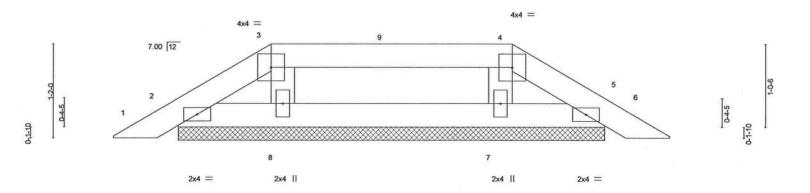
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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Job Truss Truss Type Qty SIMQUE - LOT 3 PLL Ply T21860216 2544176 PB01 Piggyback 1 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:31 2020 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, ID:RGwSt4cPREnm5p9yfgzNgAycgdx-e5Z6?BxPQIG\_jNvEhRphvk8ayfj7tzQ\_9cJE0eyKJpM 7-0-0

Scale = 1:13.8



|         | 7-0-0<br>7-0-0 |                 |        |       |           |   |      |       |        |     |               |          |  |
|---------|----------------|-----------------|--------|-------|-----------|---|------|-------|--------|-----|---------------|----------|--|
| LOADING | G (psf)        | SPACING-        | 2-0-0  | CSI.  | 5.75A45pm | DEFL.                                   | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |  |
| TCLL    | 20.0           | Plate Grip DOL  | 1.25   | TC    | 0.14      | Vert(LL)                                | 0.00 | 5     | n/r    | 120 | MT20          | 244/190  |  |
| TCDL    | 7.0            | Lumber DOL      | 1.25   | BC    | 0.04      | Vert(CT)                                | 0.00 | 5     | n/r    | 120 | 1043003000    |          |  |
| BCLL    | 0.0 *          | Rep Stress Incr | YES    | WB    | 0.03      | Horz(CT)                                | 0.00 | 5     | n/a    | n/a |               |          |  |
| BCDL    | 10.0           | Code FBC2017/TI | PI2014 | Matri | x-P       | 1 0000000000000000000000000000000000000 |      |       |        |     | Weight: 20 lb | FT = 20% |  |

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

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

WEBS 2x4 SP No.3

REACTIONS. All bearings 5-3-11.

(lb) - Max Horz 2=31(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 2, 5, 8, 7
Max Grav All reactions 250 lb or less at joint(s) 2, 5, 8, 7

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.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5, 8, 7.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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

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

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

November 11,2020

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SIMQUE - LOT 3 PLL Job Truss Type Qty Ply Truss T21860217 Piggyback 2544176 PB02 21 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:32 2020 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, ID:RGwSt4cPREnm5p9yfgzNgAycgdx-6H7UCXx2BbOrLXUQF9KwSyhm422ucQp7OG3nY4yKJpL 7-0-0 Scale = 1:14.3 4x4 = 3 7.00 12 0-1-10 6 2x4 || 2x4 = 2x4 = 7-0-0 PLATES GRIP LOADING (psf) I/defl SPACING-2-0-0 CSI. DEFL (loc) L/d 244/190 0.00 120 MT20 TCLL 20.0 Plate Grip DOL 1.25 TC 0 11 Vert(LL) 5 n/r BC 0.00 n/r 120 TCDL 7.0 Lumber DOL 1.25 0.07 Vert(CT) 5 0.00 BCLL 0.0 Rep Stress Incr YES WB 0.02 Horz(CT) 4 n/a n/a Weight: 22 lb FT = 20% Code FBC2017/TPI2014 BCDL 10.0 Matrix-P BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

(size) 2=5-3-11, 4=5-3-11, 6=5-3-11

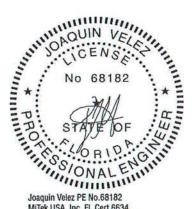
Max Horz 2=-58(LC 10)

Max Uplift 2=-72(LC 12), 4=-80(LC 13), 6=-37(LC 12) Max Grav 2=134(LC 1), 4=134(LC 20), 6=184(LC 1)

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

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
- 7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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

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

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

November 11,2020

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Job Truss Truss Type Qty SIMQUE - LOT 3 PLL T21860218 PB02G GABLE 2544176 1 Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:33 2020 Page 1  $ID: RGwSt4cPREnm5p9yfgzNgAycgdx-aThsQsygyvWhzh2dpsr9\_9DxWSPZLt9HcwoK4WyKJpKpKpff and the property of the pro$ 2-11-1 5-10-2 Scale = 1:12.5 4x4 = 3 7.00 12 0-4-5 0,1-10 6 2x4 || 2x4 = 2x4 = 5-10-2 2-0-0 LOADING (psf) SPACING-CSI. DEFL I/defl **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.07 Vert(LL) 0.00 n/r 120 MT20 244/190 TCDL 7.0 Lumber DOL 1.25 BC 0.04 Vert(CT) 0.00 5 n/r 120 Rep Stress Incr BCII 0.0 YES WB 0.02 Horz(CT) 0.00 n/a n/a Code FBC2017/TPI2014 BCDL 10.0 Matrix-P Weight: 18 lb FT = 20% LUMBER-BRACING-TOP CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 5-10-2 oc purlins. 2x4 SP No.2 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. **OTHERS** 2x4 SP No.3

**BOT CHORD** 

REACTIONS.

(size) 2=4-1-13, 4=4-1-13, 6=4-1-13

Max Horz 2=47(LC 11)

Max Uplift 2=-61(LC 12), 4=-68(LC 13), 6=-27(LC 12) Max Grav 2=112(LC 1), 4=112(LC 20), 6=141(LC 1)

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

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Gable requires continuous bottom chord bearing.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 6.
- 9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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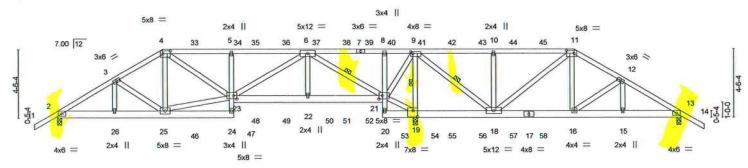
November 11,2020

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Job Truss Truss Type Qty Ply SIMQUE - LOT 3 PLL T21860219 HIP GIRDER 2544176 T01 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:36 2020 Page 1 Builders FirstSource (Jacksonville, FL). Jacksonville, FL - 32244. ID:RGwSt4cPREnm5p9yfgzNgAycgdx-?2M?2u?YFquGq8nBU\_PscorHcgJ4Y0vjlu1\_hryKJpH 11-8-0 23-6-4 28-8-4 34-0-0 5-3-12 37-1-12 3-1-12 41-0-0 4-10-4 4-10-4 4-8-0

Scale = 1:72.8



SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

1 Row at midpt

|            | 3-10-4      | , 7-0-0 , 11               | -8-0              | 16-6-4           | 21-4-8            | 23-6-4          | 28-8-4           | 1      | 34-0-0 | 37-1-12    | 41-0-0         |
|------------|-------------|----------------------------|-------------------|------------------|-------------------|-----------------|------------------|--------|--------|------------|----------------|
|            | 3-10-4      | 3-1-12 4-                  | 8-0               | 4-10-4           | 4-10-4            | 2-1-12          | 5-2-0            |        | 5-3-12 | 3-1-12     | 3-10-4         |
| Plate Offs | sets (X,Y)- | [4:0-6-0,0-2-4], [9:0-1-1: | 2,0-1-8], [11:0-6 | 5-0,0-2-4], [19: | 0-3-8,0-4-12], [2 | 21:0-2-12,0-2-1 | 2], [23:0-2-8,0- | 2-8]   |        |            |                |
| LOADING    | G (psf)     | SPACING-                   | 2-0-0             | CSI.             |                   | DEFL.           | in (loc)         | I/defl | L/d    | PLATES     | GRIP           |
| TCLL       | 20.0        | Plate Grip DOL             | 1.25              | TC               | 0.78              | Vert(LL)        | 0.18 22-23       | >999   | 240    | MT20       | 244/190        |
| TCDL       | 7.0         | Lumber DOL                 | 1.25              | BC               | 0.50              | Vert(CT)        | -0.20 22-23      | >999   | 180    | 200000-003 |                |
| BCLL       | 0.0 *       | Rep Stress Incr            | NO                | WB               | 0.91              | Horz(CT)        | 0.06 19          | n/a    | n/a    |            |                |
| BCDL       | 10.0        | Code FBC2017/              | TPI2014           | Matrix           | k-MS              |                 |                  |        |        | Weight: 2  | 76 lb FT = 20% |

BRACING-

WEBS

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2

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

5-24,8-20: 2x4 SP No.3

WEBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 19=0-3-8 (req. 0-5-1), 13=0-3-8

Max Horz 2=155(LC 7)

Max Uplift 2=-947(LC 8), 19=-3336(LC 5), 13=-606(LC 9) Max Grav 2=1356(LC 19), 19=4316(LC 1), 13=773(LC 20)

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

TOP CHORD 2-3=-2195/1592, 3-4=-2040/1594, 4-5=-2315/1785, 5-6=-2331/1791, 6-8=-953/1259,

8-9=-990/1308, 9-10=0/316, 10-11=0/316, 11-12=-899/939, 12-13=-1085/982

BOT CHORD 2-26=-1372/1855, 25-26=-1372/1855, 5-23=-531/487, 22-23=-807/1291, 21-22=-807/1291,

8-21=-386/355, 18-19=-1976/1508, 16-18=-724/767, 15-16=-787/898, 13-15=-787/898

3-25=-308/226, 4-25=-216/383, 23-25=-1154/1554, 4-23=-493/743, 6-23=-1073/1291, 6-22=-66/471, 6-21=-2932/2100, 19-21=-2054/1599, 9-21=-846/1256, 9-19=-2946/2310,

9-18=-1986/2394, 10-18=-631/590, 11-18=-1082/823, 11-16=-506/671, 12-16=-255/212

### NOTES-

WEBS

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) WARNING: Required bearing size at joint(s) 19 greater than input bearing size.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=947, 19=3336, 13=606.
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 150 lb down and 167 lb up at 7-0-0, 150 lb down and 163 lb up at 9-0-12, 150 lb down and 163 lb up at 11-0-12, 155 lb down and 144 lb up at 13-0-12, 155 lb down and 144 lb up at 15-0-12, 155 lb down and 144 lb up at 15-0-12, 155 lb down and 144 lb up at 19-0-12, 155 lb down and 150 lb up at 15-0-12, 155 lb down and 163 lb up at 20-6-0, 150 lb down and 163 lb up at 21-11-4, 150 lb down and 163 lb up at 23-11-4, 150 lb down and 163 lb up at 25-11-4, 150 lb down and 163 lb up at 27-11-4, 150 lb down and 163 lb up at 25-11-4, 150 lb d

NO 68182

NO 68182

PRO STATE OF

ORIDA

Joaquin Velez PE No.68182

Structural wood sheathing directly applied or 3-4-2 oc purlins.

6-21, 9-19, 9-18

Rigid ceiling directly applied or 4-11-6 oc bracing.

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

November 11,2020

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 fruss 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 properly 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



| Job     | Truss | Truss Type | Qty | Ply | SIMQUE - LOT 3 PLL       |
|---------|-------|------------|-----|-----|--------------------------|
| 2544176 | T01   | HIP GIRDER | 1   | 1   | T21860219                |
|         | 2000  |            | -   |     | Job Reference (optional) |

Builders FirstSource (Jacksonville, FL),

Jacksonville, FL - 32244,

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:36 2020 Page 2 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-?2M?2u?YFquGq8nBU\_PscorHcgJ4Y0vjlu1\_hryKJpH

NOTES-

9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Vert: 1-4=-54, 4-11=-54, 11-14=-54, 24-27=-20, 21-23=-20, 20-30=-20

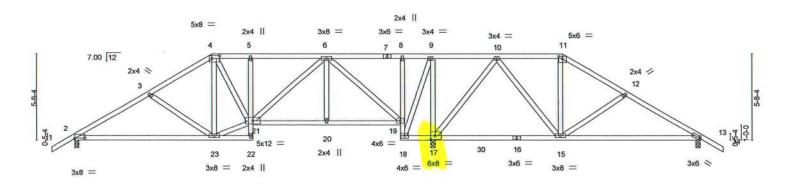
Concentrated Loads (lb)

Vert: 4=-110(F) 11=-183(F) 25=-333(F) 16=-333(F) 33=-110(F) 34=-110(F) 35=-100(F) 36=-100(F) 37=-100(F) 38=-100(F) 39=-100(F) 40=-110(F) 41=-110(F) 42=-110(F) 42=-110(F) 45=-110(F) 45=-110(F) 45=-64(F) 47=-64(F) 48=-76(F) 49=-76(F) 50=-76(F) 51=-76(F) 52=-76(F) 53=-64(F) 55=-64(F) 55=-



| Job             |              | Truss         |     |                | Truss Type |        | (            | Qty     | Ply    | SIMQUE - LOT   | Γ3 PLL              |              |            |
|-----------------|--------------|---------------|-----|----------------|------------|--------|--------------|---------|--------|----------------|---------------------|--------------|------------|
| 2544176         |              | T02           |     |                | HIP        |        |              | 6       |        |                |                     |              | T21860220  |
| 2544176         |              | 102           |     |                | rair       |        |              |         |        | Job Reference  | (optional)          |              |            |
| Builders FirstS | ource (Jacks | onville, FL), | Ja  | acksonville, F | L - 32244, |        |              |         |        |                | ndustries, Inc. Wed |              |            |
|                 |              |               |     |                |            |        | ID:RGwSt4cPl | REnm5p9 | yfgzNg | Aycgdx-TEwNFE? | A?807RIMO2iw59      | ?OZk3cmHVYsX | YmYEHyKJpG |
| 1-6-0           | 4-11-4       | 9-            | 0-0 | 11-8-0         | 16-6-4     | 21-4-8 | 23-6-4       | 27-8    | 4      | 32-0-0         | 36-0-12             | 41-0-0       | 42-6-0     |
| 1-6-0           | 4-11-4       | 4-0           | -12 | 2-8-0          | 4-10-4     | 4-10-4 | 2-1-12       | 4-2-    | 0      | 4-3-12         | 4-0-12              | 4-11-4       | 1-6-0      |

Scale = 1:72.8



|             | 1          | 9-0-0                      | 11-8-0         | 16-6-4           | 21-4-8            | 23-6-4          | 32-0        | 0-0    | - 0 | 41-0-0   | - 1      |
|-------------|------------|----------------------------|----------------|------------------|-------------------|-----------------|-------------|--------|-----|--|----------|
|             |            | 9-0-0                      | 2-8-0          | 4-10-4           | 4-10-4            | 2-1-12          | 8-5-        | 12     | 1   | 9-0-0  |          |
| Plate Offse | ets (X,Y)- | [2:0-8-0,0-0-6], [4:0-6-0, | 0-2-4], [11:0- | 3-0,0-1-12], [13 | :0-0-15,0-1-8], [ | 17:0-3-8,0-3-0] |             |        |     |  |          |
| LOADING     | (psf)      | SPACING-                   | 2-0-0          | CSI.             |                   | DEFL.           | in (loc)    | l/defl | L/d | PLATES   | GRIP     |
| TCLL        | 20.0       | Plate Grip DOL             | 1.25           | TC               | 0.37              | Vert(LL)        | 0.20 15-29  | >999   | 240 | MT20   | 244/190  |
| TCDL        | 7.0        | Lumber DOL                 | 1.25           | BC               | 0.67              | Vert(CT)        | -0.28 23-26 | >995   | 180 | The state of the s |          |
| BCLL        | 0.0        | Rep Stress Incr            | YES            | WB               | 0.82              | Horz(CT)        | 0.02 17     | n/a    | n/a |  |          |
| BCDL        | 10.0       | Code FBC2017/7             | TPI2014        | Matri            | x-MS              |                 |             |        |     | Weight: 247 lb   | FT = 20% |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2

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

5-22,8-18: 2x4 SP No.3

WEBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 17=0-3-8, 13=0-3-8

Max Horz 2=-191(LC 10)

Max Uplift 2=-410(LC 12), 17=-874(LC 9), 13=-358(LC 13) Max Grav 2=848(LC 23), 17=1772(LC 1), 13=596(LC 24)

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

TOP CHORD 2-3=-1142/588, 3-4=-917/505, 4-5=-889/549, 5-6=-899/554, 6-8=-71/255, 8-9=-79/257,

9-10=-188/460, 10-11=-360/642, 11-12=-437/693, 12-13=-664/801

**BOT CHORD** 2-23=-506/953, 20-21=-263/608, 19-20=-263/608, 18-19=-888/421, 17-18=-453/264,

13-15=-600/544

3-23=-345/251, 21-23=-290/791, 4-21=-196/329, 6-21=-174/394, 6-19=-990/440, WEBS

9-18=-399/868, 9-17=-969/451, 10-17=-770/629, 10-15=-384/451, 12-15=-341/299

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
  2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=410, 17=874, 13=358.



Structural wood sheathing directly applied or 5-3-11 oc purlins.

Rigid ceiling directly applied or 5-7-12 oc bracing.

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

November 11,2020

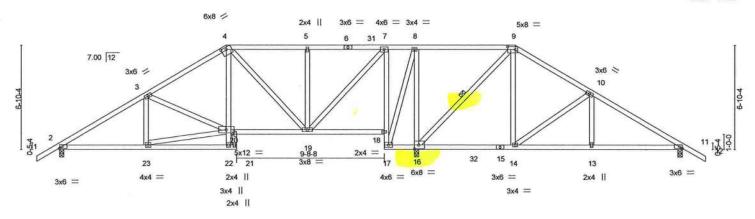
MARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use,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



6904 Parke East Blvd. Tampa, FL 36610

| Job              |              | Truss        |         | Tru          | ss Type |   |        |        | Qty     | Ply        | SIMQUE - LOT 3 PLL              |                   |                |
|------------------|--------------|--------------|---------|--------------|---------|---|--------|--------|---------|------------|---------------------------------|-------------------|----------------|
| 2544176          |              | T03          |         | HIF          | ,       |   |        |        | 1       | 1          |                                 |                   | T21860221      |
| 2544170          |              | 100          |         |              |         |   |        |        |         |            | Job Reference (optional)        |                   |                |
| Builders FirstSo | urce (Jackso | nville, FL), | Jackson | nville, FL - | 32244,  |   |        |        | 8       | .240 s Mar | 9 2020 MiTek Industries, Inc. W | led Nov 11 07:50: | 39 2020 Page 1 |
|                  |              |              |         |              |         |   |        | ID:RGw | St4cPRE | nm5p9yfg   | NgAycgdx-Pd27gw1RXIGrhcWm       | 197yZEQTtStMalN   | In9?sFflAyKJpE |
| c1-6-0           | 5-8-8        |              | 11-0-0  | 11,3-8       | 16-4-0  | - | 21-4-8 | 23-6-4 | 1       | 30-0-0     | 35-0-9                          | 41-0-0            | 42-6-0         |
| 1-6-0            | 5-8-8        |              | 5-3-8   | 0-3-8        | 5-0-8   |   | 5-0-8  | 2-1-12 | 10      | 6-5-12     | 5-0-9                           | 5-11-7            | 1-6-0          |

Scale = 1:72.8



|             |           | 3-8 11-3-                |                   | 16-4-0           | 21-4-8         | 23-6-4   | 30-0-0      |        | 35-0-9 | 41-0-0         |          |
|-------------|-----------|--------------------------|-------------------|------------------|----------------|----------|-------------|--------|--------|----------------|----------|
|             | 5-8       | 3-8 ' 5-7-               | 0 0-4-8           | 4-8-0            | 5-0-8          | 2-1-12   | 6-5-12      |        | 5-0-9  | 5-11-7         |          |
| Plate Offse | ets (X,Y) | [4:0-4-0,0-1-11], [9:0-6 | -0,0-2-4], [16:0- | -3-8,0-3-0], [24 | 4:0-2-0,0-1-8] |          |             |        |        |                |          |
| 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               | 0.49           | Vert(LL) | 0.07 13-30  | >999   | 240    | MT20           | 244/190  |
| <b>TCDL</b> | 7.0       | Lumber DOL               | 1.25              | BC               | 0.39           | Vert(CT) | -0.09 19-20 | >999   | 180    |                |          |
| BCLL        | 0.0 *     | Rep Stress Incr          | YES               | WB               | 0.90           | Horz(CT) | 0.02 11     | n/a    | n/a    |                |          |
| BCDL        | 10.0      | Code FBC2017             | /TPI2014          | Matr             | ix-MS          |          |             |        |        | Weight: 258 lb | FT = 20% |

**BRACING-**

WEBS

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2 BOT CHORD

2x4 SP No.2 \*Except\*

4-22,7-17: 2x4 SP No.3

WEBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 16=0-3-8, 11=0-3-8

Max Horz 2=228(LC 11)

Max Uplift 2=-411(LC 12), 16=-789(LC 9), 11=-375(LC 13) Max Grav 2=855(LC 23), 16=1778(LC 1), 11=603(LC 24)

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

2-3=-1188/574, 3-4=-912/510, 4-5=-559/436, 5-7=-559/436, 7-8=-117/261, 8-9=-120/430, 9-10=-320/562, 10-11=-696/862 TOP CHORD

2-23=-501/967, 4-20=-154/422, 19-20=-299/734, 17-18=-804/356, 7-18=-752/364, BOT CHORD

16-17=-355/225, 13-14=-620/541, 11-13=-620/541

3-20=-407/231, 4-19=-385/137, 5-19=-322/242, 7-19=-393/906, 8-17=-348/774, WEBS

8-16=-1079/526, 9-16=-742/607, 9-14=-500/400, 10-14=-481/518, 20-23=-492/911

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
   4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=411, 16=789, 11=375.



Structural wood sheathing directly applied or 5-2-4 oc purlins.

Rigid ceiling directly applied or 5-11-7 oc bracing. Except:

10-0-0 oc bracing: 20-22

1 Row at midpt

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

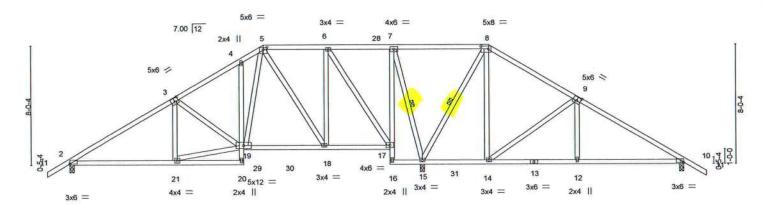
November 11,2020

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SIMQUE - LOT 3 PLL Job Truss Truss Type Qty T21860222 2544176 T04 HIP Job Reference (optional) 8.240 s Mar 9.2020 MiTek Industries, Inc. Wed Nov 11 07:50:40 2020 Page 1 Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-tpcVuG23I3Oill5zjqTone02DHhiUqIJDW?CqcyKJpD 33-11-0 5-11-0 41-0-0 7-1-0 1-6-0 28-0-0 1-6-0 4-7-0 4-2-4 6-7-8

Scale = 1:74.1



|             | 54         | 7-1-0                     | 11-8-0            | 17-2-4           | 21-4-8             | 23-6-4    | 28-0-0      | 1      | 33-11-0 | 41-0-0         |          |
|-------------|------------|---------------------------|-------------------|------------------|--------------------|-----------|-------------|--------|---------|----------------|----------|
|             |            | 7-1-0                     | 4-7-0             | 5-6-4            | 4-2-4              | 2-1-12    | 4-5-12      | _()    | 5-11-0  | 7-1-0          | 5X       |
| Plate Offse | ets (X,Y)- | [2:0-0-0,0-0-2], [3:0-3-0 | ,0-3-0], [5:0-3-0 | 0,0-1-12], [8:0- | 6-0,0-2-4], [9:0-3 | -0,0-3-0] |             |        |         | _              |          |
| LOADING     | (psf)      | SPACING-                  | 2-0-0             | CSI.             |                    | DEFL.     | in (loc)    | I/defl | L/d     | PLATES         | GRIP     |
| TCLL        | 20.0       | Plate Grip DOL            | 1.25              | TC               | 0.49               | Vert(LL)  | 0.08 21-24  | >999   | 240     | MT20           | 244/190  |
| TCDL        | 7.0        | Lumber DOL                | 1.25              | BC               | 0.46               | Vert(CT)  | -0.14 21-24 | >999   | 180     |                |          |
| BCLL        | 0.0 *      | Rep Stress Incr           | YES               | WB               | 0.95               | Horz(CT)  | 0.02 15     | n/a    | n/a     |                |          |
| BCDL        | 10.0       | Code FBC2017/             | TPI2014           | Matri            | x-MS               |           |             |        |         | Weight: 268 lb | FT = 20% |

BRACING-

WEBS

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No.2

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

4-20,7-16: 2x4 SP No.3

WEBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 15=0-3-8, 10=0-3-8

Max Horz 2=-264(LC 10)

Max Uplift 2=-406(LC 12), 15=-524(LC 12), 10=-379(LC 13) Max Grav 2=842(LC 23), 15=1797(LC 1), 10=652(LC 20)

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

2-3=-1110/582, 3-4=-847/550, 4-5=-886/614, 5-6=-466/421, 6-7=-144/285, TOP CHORD

7-8=-132/446, 8-9=-278/350, 9-10=-733/469

2-21=-474/953, 18-19=-228/546, 17-18=-157/346, 7-17=-257/655, 12-14=-258/546, **BOT CHORD** 10-12=-258/544

19-21=-470/987, 3-19=-407/233, 5-19=-343/679, 5-18=-463/186, 6-18=-119/537, 6-17=-787/350, 8-15=-773/274, 8-14=-162/467, 9-14=-638/364, 9-12=0/292,

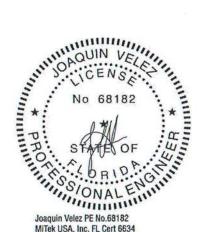
7-15=-1028/490

### NOTES-

WEBS

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=406, 15=524, 10=379.



Structural wood sheathing directly applied or 4-11-0 oc purlins.

8-15, 7-15

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

1 Row at midpt

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

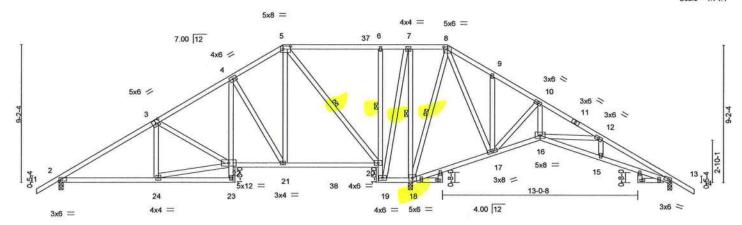
November 11,2020

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Truss Type Job SIMQUE - LOT 3 PLL Truss Qty T21860223 Hip 2544176 T05 Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:42 2020 Page 1 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-qCkGJx3JqgfQY3ELqFVGs35Ok4NkynXchqUJvVyKJpB 23-8-0 | 26-0-0 | 36-3-0 41-0-0

Scale = 1:74.1



|          |              | 6-6-0                      | 11-8-0           | 15-0-0       | 21-4-8        | 23-6-4   | 25-8-0   | 29-0-0     | 32-2-4 | 36-3-0 | 38-8-8 | 1 41-0-0 |
|----------|--------------|----------------------------|------------------|--------------|---------------|----------|----------|------------|--------|--------|--------|----------|
|          |              | 6-6-0                      | 5-2-0            | 3-4-0        | 6-4-8         | 2-1-12   | 2-0-0    | 3-4-0      | 3-2-4  | 4-0-12 | 2-5-8  | 2-3-8    |
|          |              |                            |                  |              |               | 0-1      | -12      |            |        |        |        |          |
| Plate Of | fsets (X,Y)- | [3:0-3-0,0-3-0], [5:0-6-0, | 0-2-4], [8:0-3-0 | 0-1-12], [13 | :0-2-5,0-1-8] |          |          |            |        |        |        |          |
|          |              | 001000                     |                  |              |               |          |          |            |        |        |        | 22/2     |
| LOADIN   | IG (pst)     | SPACING-                   | 2-0-0            | CSI          |               | DEFL.    | in (I    | oc) I/defl | L/d    | PLA    | TES    | GRIP     |
| TCLL     | 20.0         | Plate Grip DOL             | 1.25             | TC           | 0.48          | Vert(LL) | -0.08 20 | -21 >999   | 240    | MT2    | 0      | 244/190  |
| TCDL     | 7.0          | Lumber DOL                 | 1.25             | BC           | 0.42          | Vert(CT) | -0.14 20 | -21 >999   | 180    |        |        |          |
| BCLL     | 0.0 *        | Rep Stress Incr            | YES              | WB           | 0.71          | Horz(CT) | -0.06    | 18 n/a     | n/a    |        |        |          |

BRACING-

WEBS

TOP CHORD

**BOT CHORD** 

1 Row at midpt

1 Row at midpt

Matrix-MS

23-8-0

LUMBER-

REACTIONS.

BCDL

2x4 SP No.2 TOP CHORD

100

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

4-23,6-19,25-26,28-29: 2x4 SP No.3

WEBS 2x4 SP No.3

(size) 2=0-3-8, 18=0-3-8, 13=0-3-8 Max Horz 2=-300(LC 10)

Max Uplift 2=-379(LC 12), 18=-582(LC 12), 13=-315(LC 13) Max Grav 2=792(LC 23), 18=2072(LC 1), 13=471(LC 20)

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

Code FBC2017/TPI2014

TOP CHORD 2-3=-1038/511, 3-4=-727/448, 4-5=-391/375, 5-6=0/418, 6-7=0/431, 7-8=-21/629,

8-9=-144/517, 9-10=-135/462, 10-12=-375/363, 12-13=-869/615

**BOT CHORD** 2-24=-473/890, 4-22=-184/401, 21-22=-320/580, 20-21=-235/343, 19-20=-1148/545,

6-20=-329/269, 18-19=-639/362, 17-18=-549/339, 16-17=-298/289, 15-16=-440/731,

13-15=-437/737

22-24=-469/846, 3-22=-445/243, 4-21=-575/358, 5-21=-267/686, 5-20=-942/363,

7-19=-454/1051, 7-18=-1080/457, 8-18=-726/231, 8-17=-290/510, 10-17=-503/326,

10-16=-157/350, 12-16=-651/336

### NOTES-

WEBS

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 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) Bearing at joint(s) 13 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=379, 18=582, 13=315.



Weight: 296 lb

Structural wood sheathing directly applied or 5-3-15 oc purlins.

5-20, 7-18, 8-18

Rigid ceiling directly applied or 4-11-8 oc bracing. Except:

6-20

FT = 20%

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

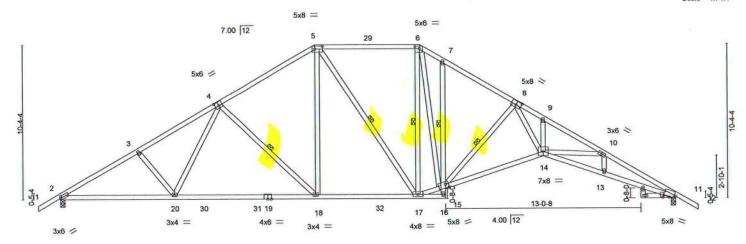
November 11,2020

MARNING - 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 ucliapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TH1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



| Job                     | Truss            |              | Truss Type       |        | Qty   | Ply    | SIMQUE - LOT 3 F                       | PLL    |        | T21860224 |
|-------------------------|------------------|--------------|------------------|--------|-------|--------|--|--------|--------|-----------|
| 2544176                 | T06              |              | PIGGYBACK BASE   |        | 1     | 1      | Job Reference (opt                     | ional) |        |           |
| Builders FirstSource (J | lacksonville, Fl | L), Jacksonv | lle, FL - 32244, | ID:RG  |       |        | 9 2020 MiTek Indus<br>Aycgdx-mbr0jd5ZM |        |        |           |
| r1-6-0                  | 5-2-5            | 10-7-14      | 17-0-0           | 24-0-0 | 25-8- | 0, 30- | 4-0 32-2-4                             | 36-3-0 | 41-0-0 | 42-6-0    |
|                         | 5-2-5            | 5-5-9        | 6-4-2            | 7-0-0  | 1-8-0 | 0 4-1  | 8-0 1-10-4                             | 4-0-12 | 4-9-0  | 1-6-0     |

Scale = 1:74.1



|              | 19         | 7-7-4                             | 17-0-0            | )              |               | 24-0-0               | 25-8-0   |         | 32-2-4     | i i         | 36-3-0       | 38-8-8       | 41-0-0   |
|--------------|------------|-----------------------------------|-------------------|----------------|---------------|----------------------|----------|---------|------------|-------------|--------------|--------------|----------|
|              |            | 7-7-4                             | 9-4-12            | 2              | -             | 7-0-0                | 1-8-0    |         | 6-6-4      |             | 4-0-12       | 2-5-8        | 2-3-8    |
| Plate Offse  | ets (X,Y)- | [2:0-0-15,0-1-8], [4:0-3-0,       | 0-3-0], [5:0-6-0, | 0-2-4], [6:0-3 | 3-8,0-2-0], [ | 8:0-4-0,0-3-0], [11: | 0-1-2,Ed | ge], [1 | 1:0-0-0,0- | 4-12], [15: | 0-2-4,0-3-0] |              |          |
| LOADING      | (psf)      | SPACING-                          | 2-0-0             | CSI.           |               | DEFL.                | in       | (loc)   | l/defl     | L/d         | PLA          | ATES         | GRIP     |
| TCLL         | 20.0       | Plate Grip DOL                    | 1.25              | TC             | 0.87          | Vert(LL)             | -0.40    | 14      | >999       | 240         | MT           | 20           | 244/190  |
| TCDL         | 7.0        | Lumber DOL                        | 1.25              | BC             | 0.97          | Vert(CT)             | -0.79 1  | 14-15   | >620       | 180         |              |              |          |
| BCLL<br>BCDL | 0.0 *      | Rep Stress Incr<br>Code FBC2017/T | YES<br>PI2014     | WB<br>Matrix   | 0.94<br>-MS   | Horz(CT)             | 0.44     | 11      | n/a        | n/a         | We           | ight: 271 lb | FT = 20% |

BRACING-TOP CHORD

WERS

**BOT CHORD** 

1 Row at midpt

1 Row at midpt

LUMBER-

TOP CHORD 2x4 SP No.2

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

7-16,11-21: 2x4 SP No.3, 11-14: 2x4 SP M 31

2x4 SP No.3 \*Except\*

WEBS 8-14: 2x4 SP No.2

REACTIONS.

(size) 2=0-3-8, 11=0-3-8 Max Horz 2=-337(LC 10)

Max Uplift 2=-619(LC 12), 11=-619(LC 13)

Max Grav 2=1598(LC 1), 11=1598(LC 1)

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

2-3=-2603/1140, 3-4=-2442/1130, 4-5=-1848/951, 5-6=-1529/896, 6-7=-1995/1111, 7-8=-2071/1034, 8-9=-5018/2129, 9-10=-5054/2062, 10-11=-5050/2097 TOP CHORD

2-20=-930/2346, 18-20=-725/2005, 17-18=-423/1537, 14-15=-1110/3159, **BOT CHORD** 

13-14=-1787/4534, 11-13=-1760/4463 WEBS

3-20=-271/232, 4-20=-138/467, 4-18=-658/421, 5-18=-236/769, 6-17=-532/197,

15-17=-355/1568, 6-15=-544/1231, 8-15=-1891/825, 8-14=-1139/3025

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=619, 11=619.



Structural wood sheathing directly applied or 1-9-7 oc purlins.

7-15

4-18, 5-17, 6-17, 8-15

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

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

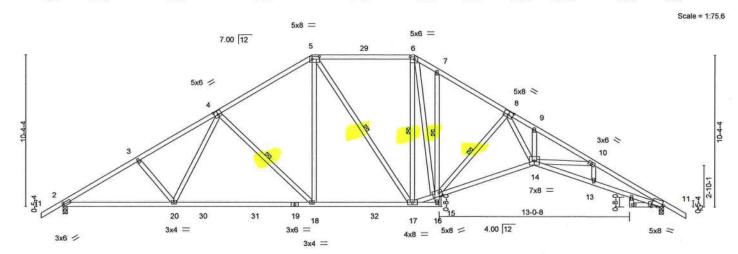
November 11,2020

MARNING - 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 properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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



Job Truss Truss Type Qty SIMQUE - LOT 3 PLL Ply T21860225 2544176 T07 PIGGYBACK BASE 16 1 Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:46 2020 Page 1 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-izzn8J6quu9r0gY635aC0vGzfifouX4BcRSW2GyKJp7 10-7-14 17-0-0 24-0-0 25-8-0 1-8-0 32-2-4 30-4-0 36-3-0 41-0-0



|            | 1          | 7-7-4                      | 17-0             | -0               | 24-0-0                        | 25-8-0     |          | 32-2-4    | 1             | 36-3-0         | 38-8-8        | 41-0-0     |
|------------|------------|----------------------------|------------------|------------------|-------------------------------|------------|----------|-----------|---------------|----------------|---------------|------------|
|            |            | 7-7-4                      | 9-4-             | 12               | 7-0-0                         | 1-8-0      |          | 6-6-4     | (1)           | 4-0-12         | 2-5-8         | 2-3-8      |
| Plate Offs | ets (X,Y)- | [2:0-0-15,0-1-8], [4:0-3-0 | 0-3-0], [5:0-6-0 | ,0-2-4], [6:0-3- | 8,0-2-0], [8:0-4-0,0-3-0], [1 | 1:0-1-2,Ed | dge], [1 | 1:0-0-0,0 | 4-12], [15:0- | -2-4,0-3-0]    |               |            |
| LOADING    | (psf)      | SPACING-                   | 2-0-0            | CSI.             | DEFL.                         | in         | (loc)    | l/defl    | L/d           | PL             | ATES          | GRIP       |
| TCLL       | 20.0       | Plate Grip DOL             | 1.25             | TC (             | 0.87 Vert(LL)                 | -0.39      | 14       | >999      | 240           | M <sup>-</sup> | T20           | 244/190    |
| TCDL       | 7.0        | Lumber DOL                 | 1.25             | BC (             | 0.80 Vert(CT)                 | -0.75      | 14-15    | >655      | 180           |                |               |            |
| BCLL       | 0.0 *      | Rep Stress Incr            | YES              | WB (             | 0.93 Horz(CT                  | 0.41       | 11       | n/a       | n/a           |                |               |            |
| BCDL       | 10.0       | Code FBC2017/T             | PI2014           | Matrix-I         | MS                            |            |          |           |               | W              | eight: 271 II | b FT = 20% |

BRACING-

TOP CHORD

BOT CHORD

WEBS

1 Row at midnt

1 Row at midpt

LUMBER-

TOP CHORD 2x4 SP No 2

2x4 SP M 31 \*Except\* **BOT CHORD** 

7-16.11-21: 2x4 SP No.3

2x4 SP No.3 \*Except\* WEBS

8-14: 2x4 SP No.2

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

Max Horz 2=-337(LC 10)

Max Uplift 2=-619(LC 12), 11=-619(LC 13)

Max Grav 2=1598(LC 1), 11=1598(LC 1)

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

2-3=-2603/1140, 3-4=-2442/1130, 4-5=-1847/951, 5-6=-1530/896, 6-7=-1994/1110, TOP CHORD 7-8=-2070/1034, 8-9=-5015/2129, 9-10=-5052/2062, 10-11=-5051/2097

2-20=-930/2347, 18-20=-725/2004, 17-18=-423/1537, 14-15=-1110/3160, **BOT CHORD** 

13-14=-1787/4534, 11-13=-1760/4463

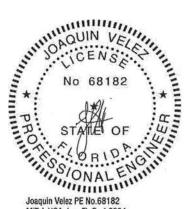
WEBS 3-20=-271/233, 4-20=-138/467, 4-18=-657/421, 5-18=-235/768, 6-17=-524/195,

15-17=-348/1549, 6-15=-541/1222, 8-15=-1893/826, 8-14=-1138/3022

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 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) Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=619, 11=619.



Structural wood sheathing directly applied or 1-9-7 oc purlins.

7-15

4-18, 5-17, 6-17, 8-15

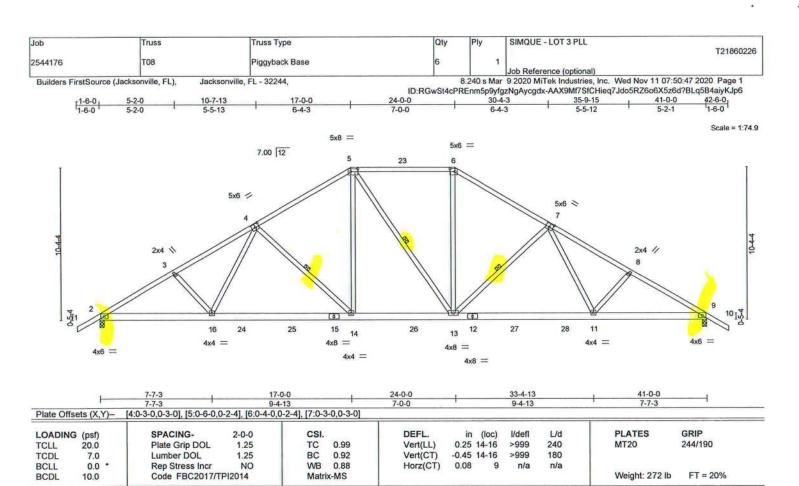
Rigid ceiling directly applied or 5-9-0 oc bracing. Except:

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

November 11,2020

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





BRACING-

TOP CHORD

**BOT CHORD** 

WEBS

Structural wood sheathing directly applied.

1 Row at midpt

Rigid ceiling directly applied or 7-4-9 oc bracing.

4-14, 5-13, 7-13

LUMBER-

2x4 SP No.2

TOP CHORD 2x6 SP M 26 \*Except\* **BOT CHORD** 12-15: 2x6 SP No.2

WEBS 2x4 SP No.3

REACTIONS.

(size) 2=0-3-8, 9=0-3-8

Max Horz 2=-337(LC 10) Max Uplift 2=-805(LC 12), 9=-700(LC 13)

Max Grav 2=1998(LC 1), 9=1771(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-3497/1565, 3-4=-3359/1552, 4-5=-2364/1198, 5-6=-1831/1037, 6-7=-2194/1116, TOP CHORD

7-8=-2824/1305, 8-9=-2983/1320

2-16=-1280/3196, 14-16=-1005/2681, 13-14=-631/2048, 11-13=-828/2216, **BOT CHORD** 

9-11=-1023/2525

3-16=-255/226, 4-16=-302/857, 4-14=-891/521, 5-14=-462/1243, 5-13=-443/309,

6-13=-300/833, 7-13=-675/425, 7-11=-143/499, 8-11=-269/233

### NOTES-

WEBS

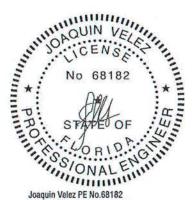
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
- 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: 1-5=-54, 5-6=-54, 6-10=-54, 16-17=-20, 14-16=-80(F=-60), 14-20=-20



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

November 11,2020

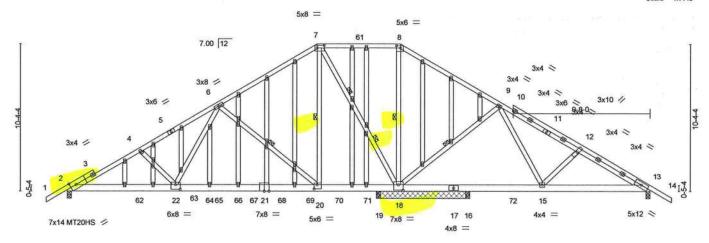
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ANSI/THI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



| Job                         | Truss         |               | Truss Type  |         |        | Qty      | Ply         | SIMQUE - LO   | OT 3 PLL                |                   |            |
|-----------------------------|---------------|---------------|-------------|---------|--------|----------|-------------|---------------|-------------------------|-------------------|------------|
| 2544176                     | T08G          |               | GABLE       |         |        | 1        | 1           |               |                         |                   | T21860227  |
|                             |               |               |             |         |        |          |             | Job Reference | e (optional)            |                   |            |
| Builders FirstSource (Jacks | onville, FL), | Jacksonville, | FL - 32244, |         |        | 1        | 8.240 s Mar | 9 2020 MiTek  | Industries, Inc. Wed No | ov 11 07:50:50 20 | 020 Page 1 |
|                             |               |               |             |         | ID     | RGwSt4cF | PREnm5p9y   | fgzNgAycgdx-  | bICH_g9Ky7fHVIsulxf8A   | JQgfJ1pqLmnX3     | QkB1yKJp3  |
| r1-6-0 L                    | 5-2-0         | 10-7-1        | 3 1         | 17-6-15 | 20-6-0 | 23-5-1   | 1           | 30-4-3        | 35-9-15                 | 41-0-0            | 42-6-0     |
| 1-6-0                       | 5-2-0         | 5-5-1         | 3           | 6-11-2  | 2-11-1 | 2-11-1   |             | 6-11-2        | 5-5-12                  | 5-2-1             | 1-6-0      |

Scale = 1:77.9



|             |            | 7-7-3                      | - i              | 17-6-15         | 4 124 1 | 22-0-0                                 | 23-5-1 25-0-0 | 28-3-8         | 33-4-13           | 41-0-0         |          |
|-------------|------------|----------------------------|------------------|-----------------|---|--|---------------|----------------|-------------------|----------------|----------|
|             |            | 7-7-3                      |                  | 9-11-12         |   | 4-5-1                                  | 1-5-1 1-6-15  | 3-3-8          | 5-1-5             | 7-7-3          |          |
| Plate Offse | ets (X,Y)- | [2:0-4-15,Edge], [7:0-6-0, | 0-2-4], [8:0-3-8 | 3,0-2-0], [18:0 | )-4-0,0-4-8],   | [20:0-2-8,0-3-8], [2                   | 21:0-0-0,0-2  | 2-12], [22:0-4 | 1-0,0-4-0], [46:0 | -1-12,0-0-0]   |          |
| LOADING     | (psf)      | SPACING-                   | 2-0-0            | CSI.            |   | DEFL.                                  | in (I         | oc) l/defl     | L/d               | PLATES         | GRIP     |
| TCLL        | 20.0       | Plate Grip DOL             | 1.25             | TC              | 0.81  | Vert(LL)                               | 0.29 20       | 22 >894        | 240               | MT20           | 244/190  |
| TCDL        | 7.0        | Lumber DOL                 | 1.25             | BC              | 0.73  | Vert(CT)                               | -0.34 20-     | 22 >756        | 180               | MT20HS         | 187/143  |
| BCLL        | 0.0 *      | Rep Stress Incr            | NO               | WB              | 0.95  | Horz(CT)                               | 0.02          | 18 n/a         | n/a               |                |          |
| BCDL        | 10.0       | Code FBC2017/TI            | PI2014           | Matrix          | k-MS  | ************************************** |               |                | 220000            | Weight: 388 lb | FT = 20% |

BRACING-

TOP CHORD

BOT CHORD

WEBS

LUMBER-

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

2x6 SP M 26 \*Except\*

17-21: 2x6 SP No.2 2x4 SP No.3 \*Except\* WEBS

7-18: 2x4 SP No.2

**OTHERS** 2x4 SP No.3

REACTIONS. All bearings 0-3-8 except (jt=length) 18=6-7-0.

(lb) - Max Horz 2=-337(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) except 2=-829(LC 8), 18=-1629(LC 8),

13=-464(LC 28), 19=-198(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 16 except 2=1342(LC 19),

18=2913(LC 1), 13=632(LC 16), 19=324(LC 33)

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

TOP CHORD 2-4=-2181/1366, 4-6=-2037/1322, 6-7=-258/201, 7-8=-443/983, 8-9=-582/1175, 9-12=-693/648, 12-13=-751/661

**BOT CHORD** 

2-22=-1324/2134, 20-22=-730/1190, 19-20=-322/491, 18-19=-322/491, 16-18=-672/564,

15-16=-672/564, 13-15=-488/619

4-22=-330/287, 6-22=-1015/1559, 6-20=-1283/941, 7-20=-1052/1725, 7-18=-2214/1388,

8-18=-860/465, 9-18=-635/455, 9-15=-164/427, 12-15=-278/234

### NOTES-

WEBS

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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) Provide adequate drainage to prevent water ponding.
- 5) All plates are MT20 plates unless otherwise indicated.
- 6) All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 829 lb uplift at joint 2, 1629 lb uplift at joint 18, 464 lb uplift at joint 13 and 198 lb uplift at joint 19.



Structural wood sheathing directly applied or 3-0-9 oc purlins.

7-18

6-20, 7-20, 8-18, 9-18

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

1 Row at midpt

2 Rows at 1/3 pts

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

November 11,2020

### Continued on page 2

MARNING - 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 MTEK® 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 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 uccliague with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



| Job                  | Truss | Truss Type     | Qty | Ply | SIMQUE - LOT 3 PLL       |           |
|----------------------|-------|----------------|-----|-----|--------------------------|-----------|
| 2544176              | T08G  | GABLE          | 1   | 1   |                          | T21860227 |
| Puildore FirstCourse |       | - II- El 00077 |     |     | Job Reference (optional) |           |

ders FirstSource (Jacksonville, FL).

Jacksonville, FL - 32244.

8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:50 2020 Page 2  $ID: RGwSt4cPREnm5p9yfgzNgAycgdx-bICH\_g9Ky7fHVIsulxf8AlQgfJ1pqLmnX3QkB1yKJp3\\$ 

### NOTES-

- 11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 368 lb down and 374 lb up at 5-0-0, 163 lb down and 145 lb up at 7-0-12, 163 lb down and 145 lb up at 9-0-12, 163 lb down and 145 lb up at 15-0-12, 163 lb down and 145 lb up at 13-0-12, 163 lb down and 145 lb up at 15-0-12, 163 lb down and 145 lb up at 17-0-12, and 163 lb down and 145 lb up at 19-0-12, and 163 lb down and 145 lb up at 21-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-7=-54, 7-8=-54, 8-14=-54, 53-57=-20

Concentrated Loads (lb)

Vert: 62=-368(B) 63=-152(B) 64=-152(B) 66=-152(B) 67=-152(B) 68=-152(B) 69=-152(B) 70=-152(B) 71=-152(B)



Job Truss Truss Type Qty SIMQUE - LOT 3 PLL T21860228 2544176 T09 Common 1 Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:51 2020 Page 1 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-3xmfB0AyiRn87SQ4seANjyzxXjSuZvzwlj9HjTyKJp2 -1-6-0 9-11-0 1-6-0 15-3-9 19-10-0 4x6 || Scale = 1:40.6 7.00 12 2x4 N 2x4 // 10 9 8 3x6 = 3x4 = 3x4 = 3x6 = 3x6 = 19-10-0 12-10-4 [2:0-0-0,0-0-2], [6:0-0-0,0-0-2] Plate Offsets (X,Y)-LOADING (psf) SPACING-2-0-0 CSI. DEFI in (loc) I/defl L/d **PLATES** GRIP 20.0 Plate Grip DOL TC TCLL 1.25 0.42 Vert(LL) 0.12 8-16 >999 240 MT20 244/190 BC TCDL 7.0 Lumber DOL 1.25 0.42 Vert(CT) -0.11 10-13 >999 180

LUMBER-

BCLL

BCDL

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

0.0

10.0

WEBS 2x4 SP No.3

BRACING-

Horz(CT)

0.02

6

n/a

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 5-4-3 oc purlins.

Weight: 98 lb

FT = 20%

Rigid ceiling directly applied or 5-4-11 oc bracing.

n/a

REACTIONS.

(size) 2=0-3-8, 6=0-3-8 Max Horz 2=207(LC 11)

Max Uplift 2=-320(LC 12), 6=-320(LC 13) Max Grav 2=815(LC 1), 6=815(LC 1)

Rep Stress Incr

Code FBC2017/TPI2014

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-3=-1134/1303, 3-4=-966/1264, 4-5=-966/1264, 5-6=-1134/1303 BOT CHORD 2-10=-1029/939, 8-10=-582/615, 6-8=-1039/939

WEBS 4-8=-603/354, 5-8=-318/275, 4-10=-603/354, 3-10=-319/275

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

WB 0.51

Matrix-MS

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

YES

- 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.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 320 lb uplift at joint 2 and 320 lb uplift at joint 6.



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

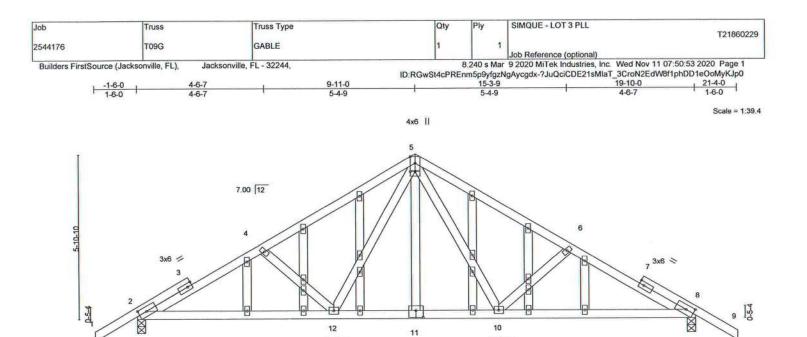
November 11,2020

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, cerction and bracing of trusses and truss systems, see 

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





|   |  | -11-12<br>-11-12             |                        | 1                            | 12-10-4<br>5-10-8                         |                       | -              |                               |                          | 11-12                            |                             |
|---|--|------------------------------|------------------------|------------------------------|---|-----------------------|----------------|-------------------------------|--------------------------|----------------------------------|-----------------------------|
| Plate Offsets (X,Y)- [                                | 2:0-3-7,0-1-15], [5:0-2-0,   | 0-0-0], [8:0-3-7             | ,0-1-15], [11          | :0-3-0,0-3-0]                |   |                       |                |                               |                          | ,                                |                             |
| LOADING (psf) TCLL 20.0 TCDL 7.0 BCLL 0.0 * BCDL 10.0 | SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code FBC2017/T/ | 2-0-0<br>1.25<br>1.25<br>YES | CSI.<br>TC<br>BC<br>WB | 0.63<br>0.40<br>0.49<br>x-MS | DEFL.<br>Vert(LL)<br>Vert(CT)<br>Horz(CT) | 0.11<br>-0.10<br>0.03 | 10-35<br>12-31 | l/defl<br>>999<br>>999<br>n/a | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 136 lb | GRIP<br>244/190<br>FT = 20% |

5x6 =

BRACING-TOP CHORD

**BOT CHORD** 

3x4 =

3x4 =

LUMBER-

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

4x8 /

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

2x4 SP No.3 **OTHERS** 

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

Max Horz 2=-197(LC 10)

Max Uplift 2=-323(LC 12), 8=-323(LC 13) Max Grav 2=812(LC 1), 8=812(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-4=-1168/1393, 4-5=-1012/1313, 5-6=-1012/1313, 6-8=-1168/1393

2-12=-1152/1033, 10-12=-607/629, 8-10=-1166/1033 **BOT CHORD** 

5-10=-643/382, 6-10=-376/353, 5-12=-643/382, 4-12=-376/353 WEBS

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable studs spaced at 2-0-0 oc.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 323 lb uplift at joint 2 and 323 lb uplift at joint 8.



4x8 >

Structural wood sheathing directly applied or 4-11-9 oc purlins.

Rigid ceiling directly applied or 5-2-2 oc bracing.

6904 Parke East Blvd. Tampa FL 33610 Date:

November 11,2020

MARNING - 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 properly 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



SIMQUE - LOT 3 PLL Job Qty Ply Truss Truss Type T21860230 2544176 T10 Common Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:54 2020 Page 1 Builders FirstSource (Jacksonville, FL). Jacksonville, FL - 32244, ID:RGwSt4cPREnm5p9yfgzNgAycgdx-TWSoq2Cr?M9j\_v9fXmj4LbbUXwVJmGPNRhOxKoyKJp? 15-3-9 5-4-9 19-10-0 Scale = 1:40.2 4x6 || 7.00 12 2x4 N 2x4 / **⋈** 9 8 3x4 = 3x6 = 3x4 = 3x8 || 3x6 = 19-10<sub>-</sub>0 6-11-12 12-10-4 19-4-0 5-10-8 6-11-12 Plate Offsets (X,Y)--[2:0-0-0,0-0-2], [6:Edge,0-0-6], [6:0-1-3,Edge] DEFL. PLATES GRIP LOADING (psf) SPACING-2-0-0 (loc) I/defl Ľd 20.0 Plate Grip DOL TC 0.08 7-17 >999 240 MT20 244/190 TCLL 1.25 0.30 Vert(LL) BC 0.37 Vert(CT) -0.10 >999 180 TCDL 7.0 Lumber DOL 1.25 9-12 0.0 \* WB 0.46 Horz(CT) 0.01 6 BCLL Rep Stress Incr YES n/a n/a Code FBC2017/TPI2014 Weight: 97 lb FT = 20% BCDL 10.0 Matrix-MS

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

WEBS 2x4 SP No.3

WEDGE

Right: 2x4 SP No.3

REACTIONS.

(size) 2=0-3-8, 7=0-3-8, 6=0-3-8

Max Horz 2=198(LC 9)

Max Uplift 2=-222(LC 12), 7=-282(LC 12), 6=-164(LC 8) Max Grav 2=544(LC 1), 7=761(LC 1), 6=266(LC 24)

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

TOP CHORD 2-3=-620/360, 3-4=-491/327, 4-5=-104/257, 5-6=-202/299

BOT CHORD 2-9=-256/571

WEBS 4-7=-549/246, 5-7=-318/290, 4-9=-176/429, 3-9=-335/272

### NOTES-

Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever right exposed; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

4) \*This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.

 Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 222 lb uplift at joint 2, 282 lb uplift at joint 7 and 164 lb uplift at joint 6.



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

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

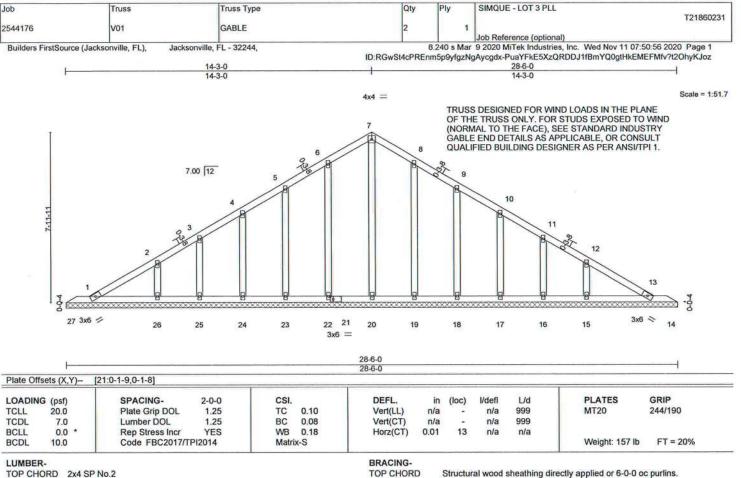
Joaquin Velez PE No.68182 MiTek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

November 11,2020

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Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, crection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria, DSB-99 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601





BOT CHORD

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

2x4 SP No.2

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

(lb) -

2x4 SP No.3 **OTHERS** 

REACTIONS. All bearings 28-6-0.

Max Horz 27=239(LC 9) Max Uplift All uplift 100 lb or less at joint(s) 1, 13, 27, 25, 19, 16, 14 except 22=-102(LC 12), 23=-103(LC 12),

24=-105(LC 12), 26=-153(LC 12), 18=-104(LC 13), 17=-105(LC 13), 15=-153(LC 13)

All reactions 250 lb or less at joint(s) 1, 13, 27, 20, 22, 23, 24, 25, 26, 19, 18, 17, 16, 15, 14

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

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 13, 27, 25, 19, 16, 14 except (jt=lb) 22=102, 23=103, 24=105, 26=153, 18=104, 17=105, 15=153.



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

November 11,2020

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Job Truss Truss Type Qty SIMQUE - LOT 3 PLL Ply T21860232 2544176 V02 Valley Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:57 2020 Page 1 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-t58xS4FjlHYIrNuEDvHnzDD137Zuzi?p8fccw7yKJoy 24-6-0 12-3-0 4x4 = Scale = 1:46.0 7.00 12 3 3x6 / 3x6 > 13 12 10 3x6 = 24-6-0 0-0-7 24-5-9 LOADING (psf) SPACING-2-0-0 CSI. DEFL PLATES (loc) L/d GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.16 Vert(LL) n/a 999 244/190 n/a MT20 TCDL 7.0 Lumber DOL 1.25 BC 0.19 Vert(CT) n/a n/a 999 BCLL 0.0 Rep Stress Incr YES WB 0.15 Horz(CT) 0.01 7 Code FBC2017/TPI2014 BCDL 10.0 Matrix-S Weight: 105 lb FT = 20%

LUMBER-

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

**BRACING-**

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

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

REACTIONS. All bearings 24-5-2.

> (lb) -Max Horz 1=-213(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 1, 7 except 12=-216(LC 12), 13=-216(LC 12), 9=-216(LC 13),

8=-216(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=385(LC 22), 12=397(LC 19), 13=341(LC 19), 9=397(LC 20), 8=342(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. WEBS 3-12=-272/242, 2-13=-272/233, 5-9=-272/241, 6-8=-272/234

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) All plates are 2x4 MT20 unless otherwise indicated.
- 4) Gable requires continuous bottom chord bearing.

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) 1, 7 except (jt=lb) 12=216, 13=216, 9=216, 8=216.



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

November 11,2020

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SIMQUE - LOT 3 PLL Qty Job Truss Truss Type T21860233 Valley 2544176 V03 Job Reference (optional) 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:58 2020 Page 1 Jacksonville, FL - 32244. Builders FirstSource (Jacksonville, FL), ID:RGwSt4cPREnm5p9yfgzNgAycgdx-MHhJfPGL3ag8TWTQmco0VRm90Xt3iA3yMJM9SZyKJox 20-6-0 10-3-0 10-3-0 Scale = 1:38.5 4x4 = 7.00 12 2x4 || 2x4 || 3x6 > 3x6 / 6 9 10 8 11 2x4 || 2x4 11 2x4 || 3x6 PLATES GRIP SPACING-2-0-0 CSI. DEFL. in (loc) I/defl 1 /d LOADING (psf) 244/190 999 MT20 20.0 Plate Grip DOL 1.25 TC 0.34 Vert(LL) n/a n/a TCLL 1.25 BC 999 Lumber DOL 0.26 Vert(CT) n/a n/a TCDL 7.0 5 0.0 Rep Stress Incr YES WB 0.10 Horz(CT) 0.00 n/a n/a BCLL Weight: 81 lb FT = 20% Code FBC2017/TPI2014 Matrix-S BCDL BRACING-LUMBER-Structural wood sheathing directly applied or 6-0-0 oc purlins. TOP CHORD TOP CHORD 2x4 SP No.2

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

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

REACTIONS. All bearings 20-5-2.

(lb) - Max Horz 1=-176(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 9=-314(LC 12), 6=-314(LC 13)

Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=318(LC 22), 9=532(LC 19), 6=531(LC 20)

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

2-9=-386/332, 4-6=-386/332 WEBS

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 9=314, 6=314.



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Job Qty SIMQUE - LOT 3 PLL Truss Truss Type T21860234 2544176 V04 Valley 1 Job Reference (optional) Jacksonville, FL - 32244, 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:50:59 2020 Page 1 Builders FirstSource (Jacksonville, FL), ID:RGwSt4cPREnm5p9yfgzNgAycgdx-qTFhtlGzquo?4g2cKKJF2eINGxGSRdg6bz5i\_0yKJow 16-6-0 Scale = 1:31.2 3 7.00 12 2x4 || 2x4 || 2 3x6 / 3x6 > 2x4 II 3x6 = 2x4 || 2x4 || 0-0-7 16-6-0 LOADING (psf) SPACING-2-0-0 CSI. DEFL. I/defl **PLATES** GRIP (loc) L/d TCLL 20.0 Plate Grip DOL 1.25 TC 0.18 Vert(LL) n/a 999 MT20 244/190 n/a TCDL 7.0 Lumber DOL 1.25 BC 0.12 Vert(CT) n/a n/a 999 BCLL 0.0 Rep Stress Incr YES WB 0.08 Horz(CT) 0.00 5 n/a n/a BCDL 10.0 Code FBC2017/TPI2014 Matrix-S Weight: 63 lb FT = 20% LUMBER-BRACING-TOP CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. 2x4 SP No.2 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS. All bearings 16-5-2.

(lb) - Max Horz 1=-140(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 9=-237(LC 12), 6=-237(LC 13) All reactions 250 lb or less at joint(s) 1, 5, 7 except 9=373(LC 19), 6=372(LC 20)

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

WEBS

2-9=-292/255, 4-6=-292/255

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 7 except (jt=lb) 9=237, 6=237.



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



SIMQUE - LOT 3 PLL Job Truss Truss Type Qty T21860235 Valley 2544176 V05 Job Reference (optional) Builders FirstSource (Jacksonville, FL), Jacksonville, FL - 32244. 8.240 s Mar 9 2020 MiTek Industries, Inc. Wed Nov 11 07:51:00 2020 Page 1 ID:RGwSt4cPREnm5p9yfgzNgAycgdx-lgp345HcbCwsiqdpu1qUasrTVLZbA4wFqdrGXSyKJov Scale = 1:23.6 4x6 = 2 7.00 12 3x6 / 3x6 > 2x4 || PLATES GRIP LOADING (psf) SPACING-2-0-0 CSI. DEFL. in (loc) I/defl L/d 20.0 Plate Grip DOL 999 MT20 244/190 TCLL 1.25 TC 0.40 Vert(LL) n/a n/a BC 0.32 n/a 999 TCDL 7.0 Lumber DOL 1.25 Vert(CT) n/a WB 0.07 BCLL 0.0 Rep Stress Incr YES Horz(CT) 0.00 n/a BCDL 10.0 Code FBC2017/TPI2014 Weight: 43 lb FT = 20% LUMBER-BRACING-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 OTHERS 2x4 SP No.3 **BOT CHORD** 

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

REACTIONS.

(size) 1=12-5-2, 3=12-5-2, 4=12-5-2

Max Horz 1=104(LC 9)

Max Uplift 1=-92(LC 12), 3=-106(LC 13), 4=-126(LC 12) Max Grav 1=199(LC 1), 3=204(LC 20), 4=447(LC 1)

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

WEBS

2-4=-282/177

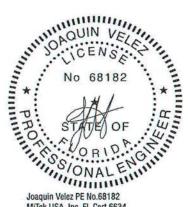
### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.

4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 3=106, 4=126.



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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2870 Crain Highway, Suite 203 Waldorf, MD 20601



Job Qty SIMQUE - LOT 3 PLL Truss Truss Type Ply T21860236 Valley V06 2544176 | Job Reference (optional) | 8.240 s Mar | 9 2020 MiTek Industries, Inc. Wed Nov 11 07:51:01 2020 Page 1 Jacksonville, FL - 32244, Builders FirstSource (Jacksonville, FL), ID:RGwSt4cPREnm5p9yfgzNgAycgdx-msNRIRIEMV2jK\_B?SILj73Oi2lwhvYmP2Hap3uyKJou Scale = 1:17.1 4x4 = 2 7.00 12 400 000 2x4 % 2x4 || 2x4 > 0-0-7 8-6-0 8-5-9 LOADING (psf) SPACING-2-0-0 CSI. DEFL PLATES (loc) L/d TCLL 20.0 Plate Grip DOL 1.25 TC 0.16 Vert(LL) n/a 999 244/190 n/a MT20 TCDL 7.0 Lumber DOL 1.25 BC 0.13 Vert(CT) n/a n/a 999 BCLL 0.0 Rep Stress Incr YES WB 0.04 Horz(CT) 0.00 3 n/a BCDL 10.0 Code FBC2017/TPI2014 Matrix-S Weight: 28 lb FT = 20% LUMBER-BRACING-TOP CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. 2x4 SP No.2 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

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

(size) 1=8-5-2, 3=8-5-2, 4=8-5-2

Max Horz 1=-67(LC 8)

Max Uplift 1=-60(LC 12), 3=-69(LC 13), 4=-82(LC 12) Max Grav 1=129(LC 1), 3=133(LC 20), 4=290(LC 1)

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

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Gable requires continuous bottom chord bearing.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

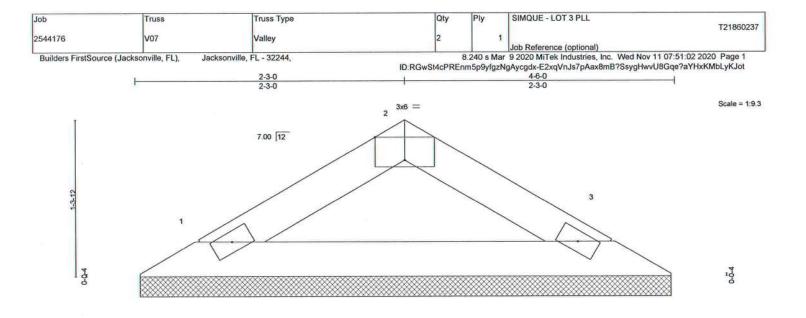


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2x4 /

2x4 >

Structural wood sheathing directly applied or 4-6-0 oc purlins.

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

|           |            | 1               |        |       |      | 4-5-9    |      |       |        |     | 0-0           |          |
|-----------|------------|-----------------|--------|-------|------|----------|------|-------|--------|-----|---------------|----------|
| Plate Off | sets (X,Y) | [2:0-3-0,Edge]  |        |       |      |          |      |       |        |     |               |          |
| LOADIN    | G (psf)    | SPACING-        | 2-0-0  | CSI.  |      | DEFL.    | in   | (loc) | l/defl | L/d | PLATES        | GRIP     |
| TCLL      | 20.0       | Plate Grip DOL  | 1.25   | TC    | 0.05 | Vert(LL) | n/a  |       | n/a    | 999 | MT20          | 244/190  |
| TCDL      | 7.0        | Lumber DOL      | 1.25   | BC    | 0.14 | Vert(CT) | n/a  | 170   | n/a    | 999 |               |          |
| BCLL      | 0.0 *      | Rep Stress Incr | YES    | WB    | 0.00 | Horz(CT) | 0.00 | 3     | n/a    | n/a |               |          |
| BCDL      | 10.0       | Code FBC2017/T  | PI2014 | Matri | x-P  |          |      |       |        |     | Weight: 13 lb | FT = 20% |

BRACING-

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

2x4 SP No.2

(size) 1=4-5-2, 3=4-5-2 Max Horz 1=-31(LC 8)

Max Uplift 1=-47(LC 12), 3=-47(LC 13)

Max Grav 1=126(LC 1), 3=126(LC 1)

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 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



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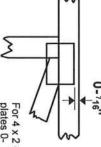
## Symbols

# PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated.

Dimensions are in ft-in-sixteenths. Apply plates to both sides of truss and fully embed teeth.



For 4 x 2 orientation, locate plates 0- ½6" from outside edge of truss.

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

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

### PLATE SIZE

4 × 4

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

# LATERAL BRACING LOCATION



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

### BEARING



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

### Industry Standards: ANSI/TPI1: National D

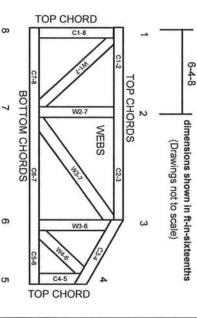
National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.

DSB-89

Design Standard for Bracing.

Building Component Safety Information,
Guide to Good Practice for Handling,
Installing & Bracing of Metal Plate
Connected Wood Trusses.

# Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.

4

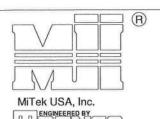
- Cut members to bear tightly against each other
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no cailing is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks, Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- 21. The design does not take into account any dynamic or other loads other than those expressly stated.

### AUGUST 1, 2016

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

MII-T-BRACE 2

MiTek USA, Inc. Page 1 of 1



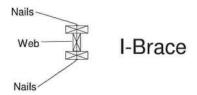
Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

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

| 1                 | 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)

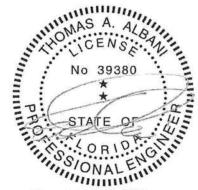
| Nails                              |
|------------------------------------|
| SPACING                            |
| WEB                                |
| T-BRACE                            |
| Nails Section Detail  T-Brace  Web |



|            |                         | ce Size<br>-Ply Truss        |
|------------|-------------------------|------------------------------|
|            | Specified<br>Rows of La | Continuous<br>iteral 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<br>for Two-Ply Truss |                              |  |  |  |
|------------|---------------------------------|------------------------------|--|--|--|
|            | Specified<br>Rows of La         | Continuous<br>Iteral Bracing |  |  |  |
| Web Size   | 1                               | 2                            |  |  |  |
| 2x3 or 2x4 | 2x4 T-Brace                     | 2x4 I-Brace                  |  |  |  |
| 2x6        | 2x6 T-Brace                     | 2x6 I-Brace                  |  |  |  |
| 2x8        | 2x8 T-Brace                     | 2x8 I-Brace                  |  |  |  |

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



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

February 12, 2018

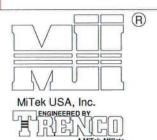
### **AUGUST 1, 2016**

### SCAB-BRACE DETAIL

### MII-SCAB-BRACE

MiTek USA, Inc.

Page 1 of 1

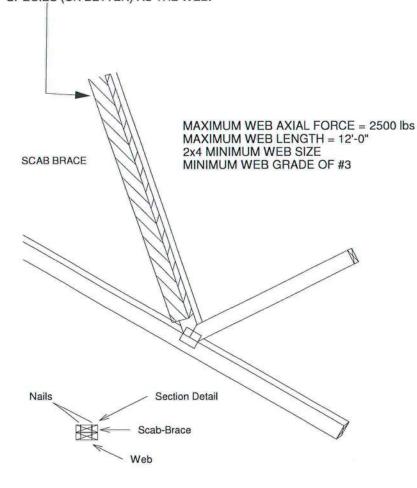


Note: Scab-Bracing to be used when continuous lateral bracing at midpoint (or T-Brace) is impractical.

Scab must cover full length of web +/- 6".

\*\*\* THIS DETAIL IS NOT APLICABLE 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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February 12, 2018

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

MII-REP05

MiTek USA, Inc. Page 1 of 1



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

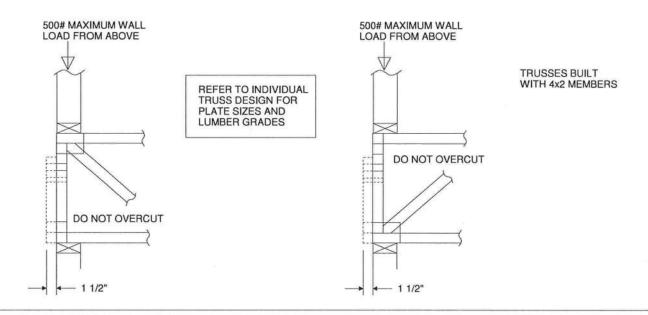
ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
 THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE

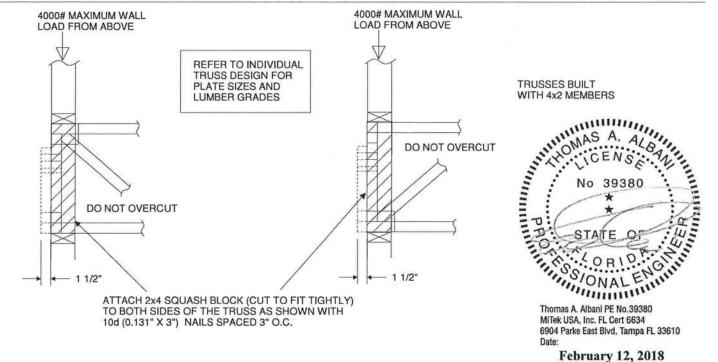
SUCH AS TO AVOID SPLITTING OF THE WOOD.

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.





# Standard Gable End Detail

## MII-GE130-D-SP

Page 1 of 2

(2) - 10d NAILS

Trusses @ 24" o.c.

2x6 DIAGONAL BRACE SPACED 48" O.C.

ATTACHED TO VERTICAL WITH (4) -16d

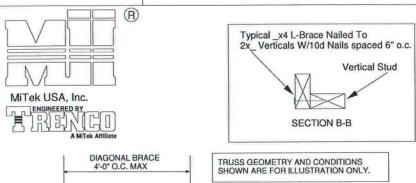
HORIZONTAL BRACE

(SEE SECTION A-A)

TO BLOCKING WITH (5) - 10d NAILS.

NAILS AND ATTACHED

MiTek USA, Inc.



Vertical Stud DIAGONAL BRACE (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2x6 Stud or 2x4 No.2 of better Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails **SECTION A-A** 

Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =

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

- 10d

NAILS

SHEATHING TO 2x4 STD SPF BLOCK

Roof Sheathing

1'-3'

Max.

24" Max

Diag. Brace

at 1/3 points

End Wall

if needed

- 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.
- "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)
- GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
   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<br>Stud Size | Stud<br>Spacing | Without<br>Brace    | 1x4<br>L-Brace | 2x4<br>L-Brace | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |  |
|----------------------|-----------------|---------------------|----------------|----------------|-------------------|---------------------------------------|--|--|
| Species<br>and Grade |                 | 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

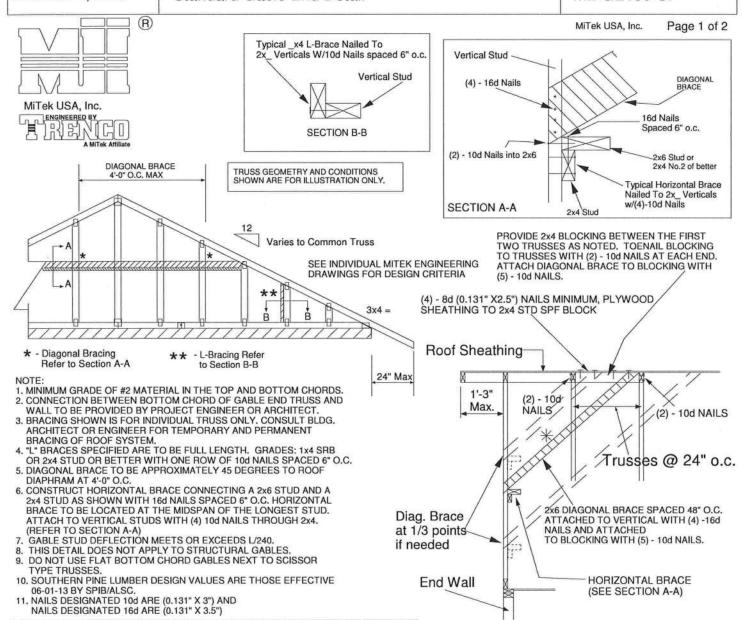
ASCF 7-10 160 MPH **DURATION OF LOAD INCREASE: 1.60**  STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



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#### Standard Gable End Detail

MII-GE130-SP



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

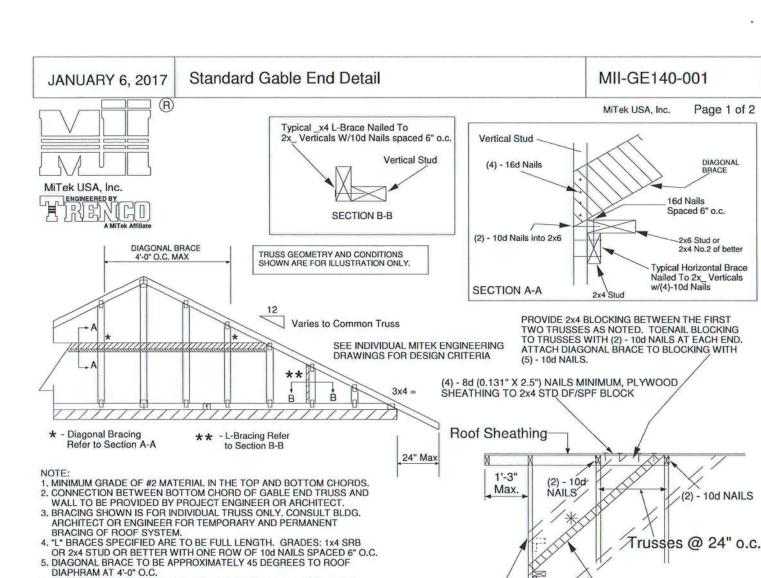
Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6" require 2x4 I-braces attached to both edges. Fasten T and I braces to narrow edge of diagonal brace with 10d nails 8" o.c., with 3" minimum end distance. Brace must cover 90% of diagonal length.

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

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



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Diag. Brace

at 1/3 points

End Wall

if needed

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) GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.

THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES. 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<br>Stud Size<br>Species | Stud<br>Spacing | Without<br>Brace    | 1x4<br>L-Brace | 2x4<br>L-Brace | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |  |
|---------------------------------|-----------------|---------------------|----------------|----------------|-------------------|---------------------------------------|--|--|
| and Grade                       |                 | Maximum Stud Length |                |                |                   |                                       |  |  |
| 2x4 DF/SPF Std/Stud             | 12" O.C.        | 3-10-1              | 3-11-7         | 5-7-2          | 7-8-2             | 11-6-4                                |  |  |
| 2x4 DF/SPF Std/Stud             | 16" O.C.        | 3-3-14              | 3-5-1          | 4-10-2         | 6-7-13            | 9-11-11                               |  |  |
| 2x4 DF/SPF Std/Stud             | 24" O.C.        | 2-8-9               | 2-9-8          | 3-11-7         | 5-5-2             | 8-1-12                                |  |  |

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

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

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



2x6 DIAGONAL BRACE SPACED 48" O.C.

ATTACHED TO VERTICAL WITH (4) -16d

HORIZONTAL BRACE

(SEE SECTION A-A)

TO BLOCKING WITH (5) - 10d NAILS.

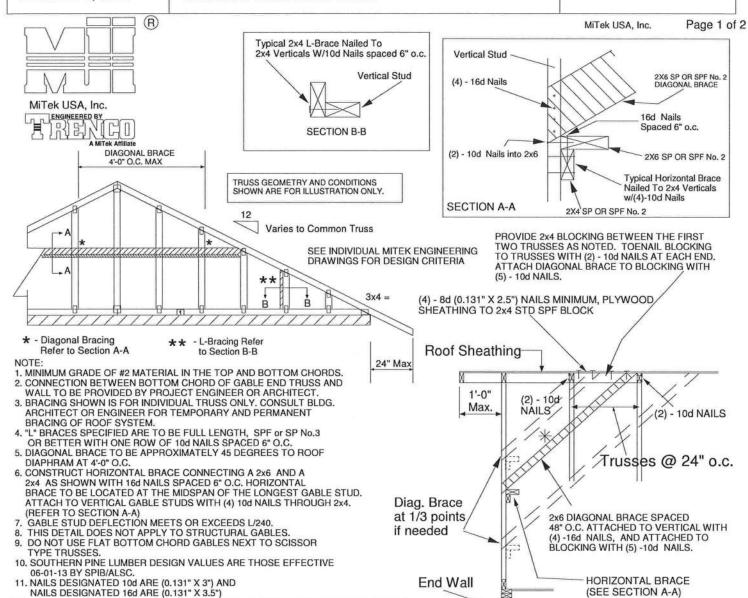
NAILS AND ATTACHED

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# Standard Gable End Detail

# MII-GE170-D-SP



| Minimum<br>Stud Size | Stud<br>Spacing | Without<br>Brace    | 2x4<br>L-Brace | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |  |  |
|----------------------|-----------------|---------------------|----------------|-------------------|---------------------------------------|--|--|--|
| Species<br>and Grade | 1000            | Maximum Stud Length |                |                   |                                       |  |  |  |
| 2x4 SP No. 3 / Stud  | 12" O.C.        | 3-9-7               | 5-8-8          | 6-11-1            | 11-4-4                                |  |  |  |
| 2x4 SP No. 3 / Stud  | 16" O.C.        | 3-4-12              | 4-11-15        | 6-9-8             | 10-2-3                                |  |  |  |
| 2x4 SP No. 3 / Stud  | 24" O.C.        | 2-9-4               | 4-0-7          | 5-6-8             | 8-3-13                                |  |  |  |
| 2x4 SP No. 2         | 12" O.C.        | 3-11-13             | 5-8-8          | 6-11-1            | 11-11-7                               |  |  |  |
| 2x4 SP No. 2         | 16" O.C.        | 3-7-7               | 4-11-5         | 6-11-1            | 10-10-5                               |  |  |  |
| 2x4 SP No. 2         | 24" O.C.        | 3-1-15              | 4-0-7          | 6-3-14            | 9-5-14                                |  |  |  |

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

MAX MEAN ROOF HEIGHT = 30 FEET EXPOSURE D

ASCE 7-10 170 MPH DURATION OF LOAD INCREASE : 1.60

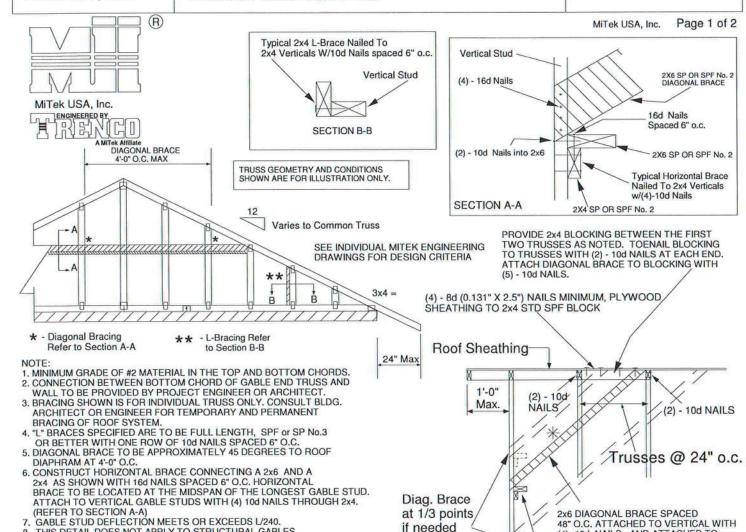
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



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# Standard Gable End Detail

# MII-GE180-D-SP



End Wall

7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240. 8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.

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.

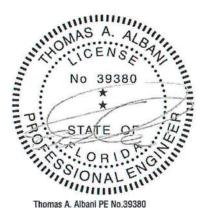
11. NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

| Minimum<br>Stud Size | Stud<br>Spacing | Without 2x4 E       |        | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |  |  |
|----------------------|-----------------|---------------------|--------|-------------------|---------------------------------------|--|--|--|
| Species<br>and Grade |                 | Maximum Stud Length |        |                   |                                       |  |  |  |
| 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.



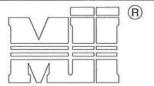
(4) -16d NAILS, AND ATTACHED TO BLOCKING WITH (5) -10d NAILS.

HORIZONTAL BRACE

(SEE SECTION A-A)

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MiTek USA, Inc. Page 1 of 1



MiTek USA, Inc.

ENGINEERED B

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 ASCF 7-10 **DURATION OF LOAD INCREASE: 1.60** 

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

A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.

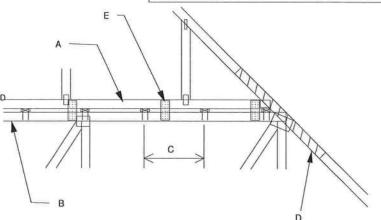
A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
SHALL BE CONNECTED TO EACH PURLIN
WITH (2) (0.131" X 3.5") TOE-NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C.
UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.
CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
D - 2 X \_ X 4"O" 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 CONTINUIOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH

IS CONTINUOUS OVEH INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:

1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR

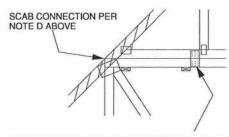
2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.

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)

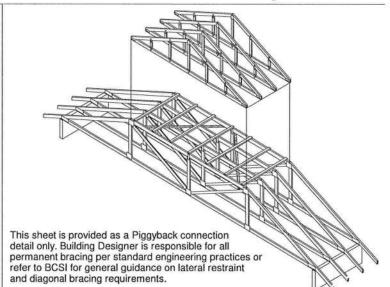


#### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

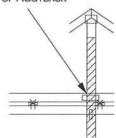
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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



VERTICAL WEB TO EXTEND THROUGH **BOTTOM CHORD** OF PIGGYBACK



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

VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.

AS SHOWN IN DETAIL.

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)

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.

FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS.

NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS. CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



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#### STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

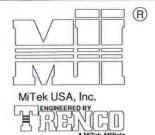
MII-PIGGY-ALT 7 - 10



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

DURATION OF LOAD INCREASE: 1.60

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



A - PIGGBACK 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

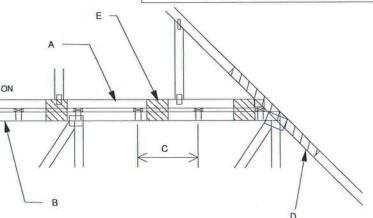
SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:

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.

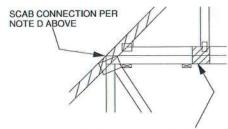
E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH

3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)

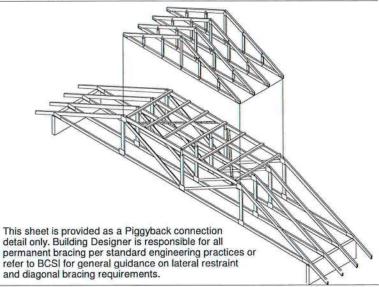


#### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

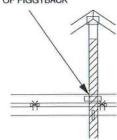
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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)



VERTICAL WEB TO EXTEND THROUGH **BOTTOM CHORD** OF PIGGYBACK



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

VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.

AS SHOWN IN DETAIL.

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)
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.

FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS. CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



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

#### MII-REP01A1

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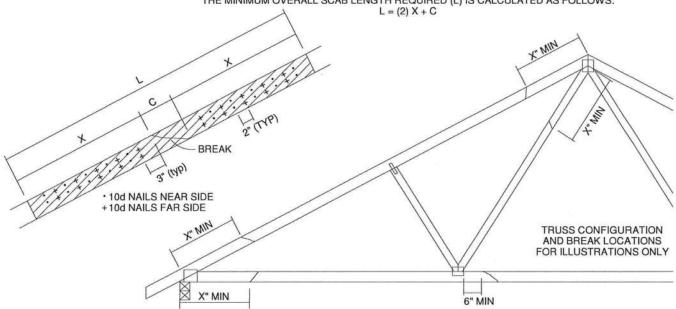
| TOTAL NUMBER OF<br>NAILS EACH SIDE<br>OF BREAK * |     |             | MAXIMUM FORCE (lbs) 15% LOAD DURATION |      |      |      |      |      |      |      |
|--|-----|-------------|---------------------------------------|------|------|------|------|------|------|------|
|  |     | X<br>INCHES | 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:



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

- 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 APPLING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.
- THE END DISTANCE, EDGE DISTANCE AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
  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.



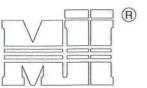
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# LATERAL TOE-NAIL DETAIL

MII-TOENAIL SP

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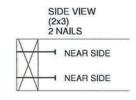
#### NOTES:

- 1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.

  2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
- 3. ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

#### THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY



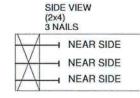
OE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail) SP SPF-S DIAM. HF SPF .131 69.9 LONG 88.0 80.6 68.4 59.7 63.4 .135 93.5 85.6 74.2 72.6 84.5 .162 108.8 99.6 86.4 73.8 3.5" LONG .128 74.2 67.9 57.6 50.3 .131 75.9 59.0 69.5 3.25" .148 81.4 74.5 64.6 63.2 52.5

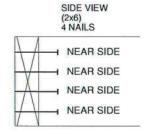
VALUES SHOWN ARE CAPACITY PER TOE-NAIL APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

#### **EXAMPLE:**

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

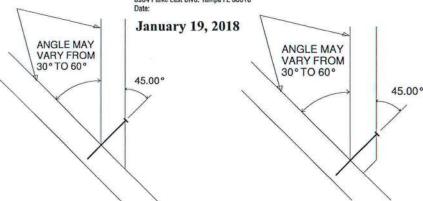
For load duration increase of 1.15: 3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

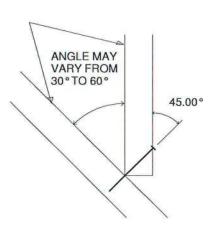






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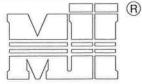


# TRUSSED VALLEY SET DETAIL

MII-VALLEY HIGH WIND1

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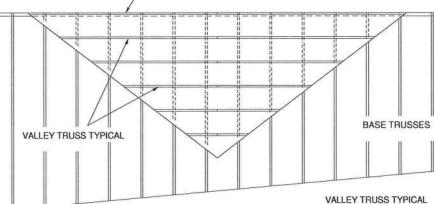


MiTek USA, Inc. ENGINEERED BY A RISH

GABLE END, COMMON TRUSS OR GIRDER TRUSS

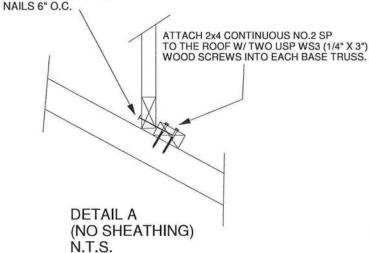
#### **GENERAL SPECIFICATIONS**

- 1. NAIL SIZE 10d (0.131" X 3")
  2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT DO NOT USE DRYWALL OR DECKING TYPE SCREW
- 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 EQUILIVANT 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.

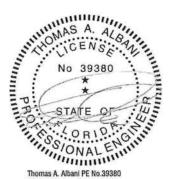


GABLE END, COMMON TRUSS OR GIRDER TRUSS P 12 SEE DETAIL A BELOW (TYP.)

SECURE VALLEY TRUSS W/ ONE ROW OF 10d



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



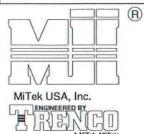
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# TRUSSED VALLEY SET DETAIL

# MII-VALLEY HIGH WIND2

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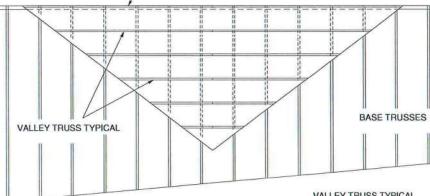
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GABLE END, COMMON TRUSS OR GIRDER TRUSS

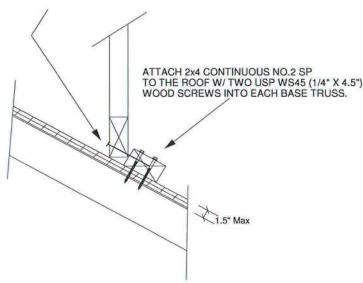
#### **GENERAL SPECIFICATIONS**

- 1. NAIL SIZE 10d (0.131" X 3")
  2. WOOD SCREW = 4.5" WS45 USP OR EQUILIVANT
  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.



GABLE END, COMMON TRUSS VALLEY TRUSS TYPICAL OR GIRDER TRUSS 12 SEE DETAIL A BELOW (TYP.) \*\*\*\*\*\*\*\*\*\*\*\*

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



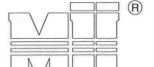
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH WIND DESIGN PER ASCE 7-10 160 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12 CATEGORY II BUILDING **EXPOSURE C** WIND DURATION OF LOAD INCREASE: 1.60 MAX TOP CHORD TOTAL LOAD = 50 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)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



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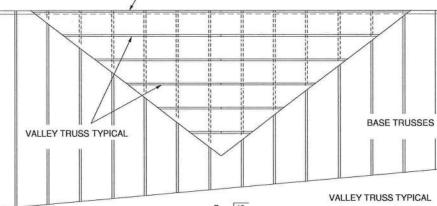
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GABLE END, COMMON TRUSS OR GIRDER TRUSS

#### **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 EQUILIVANT 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.



GABLE END, COMMON TRUSS OR GIRDER TRUSS 12 SEE DETAIL A BELOW (TYP.)

SECURE VALLEY TRUSS W/ ONE ROW OF 16d NAILS 6" O.C. ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/TWO 16d NAILS INTO EACH BASE TRUSS.

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

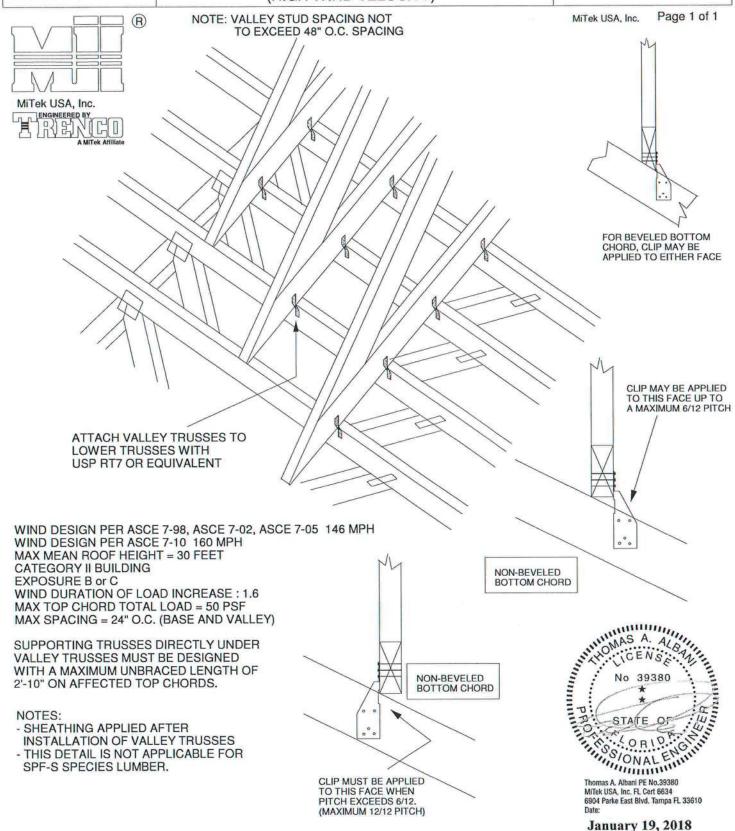
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH WIND DESIGN PER ASCE 7-10 150 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12 CATEGORY II BUILDING EXPOSURE C OR B EXPOSURE C OH B
WIND DURATION OF LOAD INCREASE: 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24"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



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# TRUSSED VALLEY SET DETAIL (HIGH WIND VELOCITY)

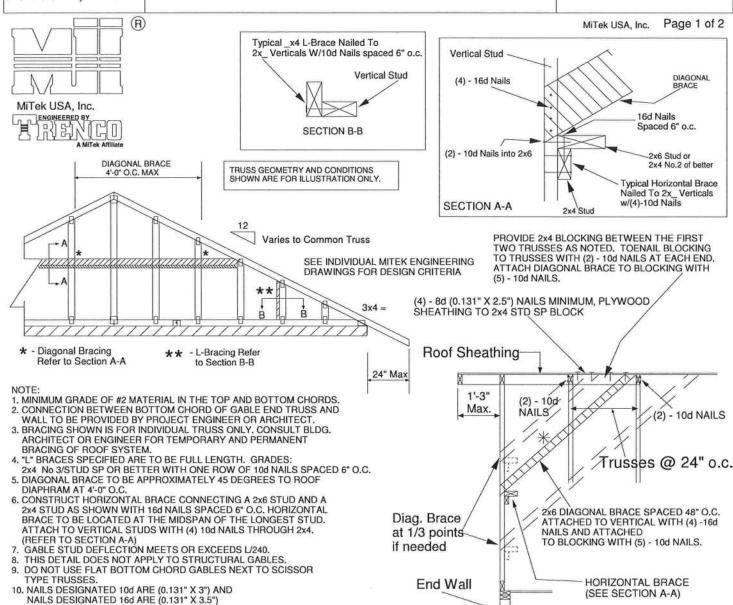
MII-VALLEY





# Standard Gable End Detail

#### MII-GE146-001

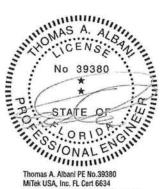


| Minimum<br>Stud Size | Stud<br>Spacing | WILLIOUT ZAT        |       | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |  |  |
|----------------------|-----------------|---------------------|-------|-------------------|---------------------------------------|--|--|--|
| Species<br>and Grade |                 | Maximum Stud Length |       |                   |                                       |  |  |  |
| 2x4 SP No 3/Stud     | 12" O.C.        | 3-11-3              | 6-8-0 | 7-2-14            | 11-9-10                               |  |  |  |
| 2x4 SP No 3/Stud     | 16" O.C.        | 3-6-14              | 5-9-5 | 7-1-13            | 10-8-11                               |  |  |  |
| 2x4 SP No 3/Stud     | 24" O.C.        | 3-1-8               | 4-8-9 | 6-2-15            | 9-4-7                                 |  |  |  |

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

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

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



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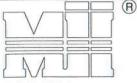
**OCTOBER 5, 2016** 

# REPLACE BROKEN OVERHANG

MII-REP13B

MiTek USA, Inc.

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ENGINEERED BY A MiTek Affiliate 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:

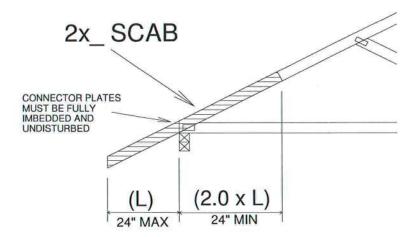
1. ATTACH 2x\_ SCAB (MINIMUM NO.2 GRADE SPF, HF, SP, DF) TO ONE FACE OF

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



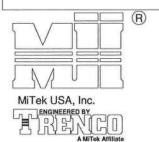
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### LATERAL BRACING RECOMMENDATIONS

MII-STRGBCK

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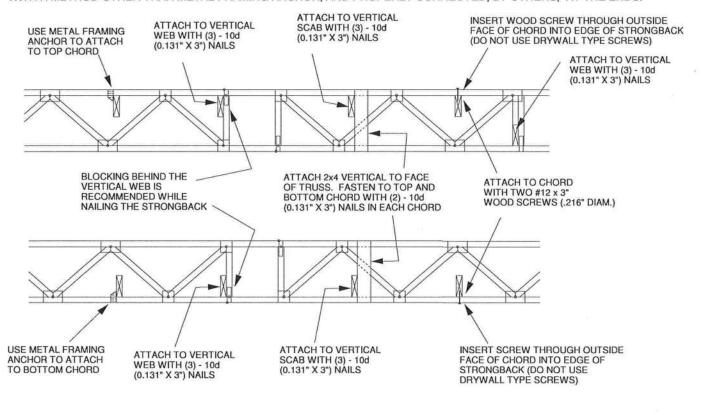
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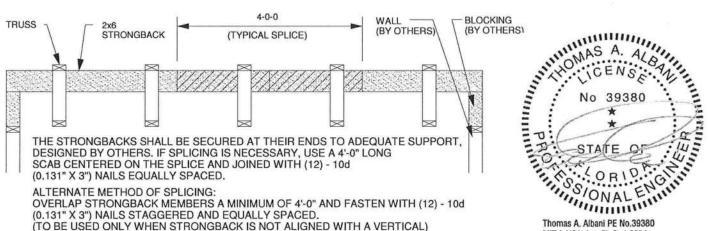


TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

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

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





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