

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

RE: 2946692 - MARTIN - SPEC HOUSE

MiTek USA, Inc.

6904 Parke East Blvd. Tampa, FL 33610-4115

Site Information:

Customer Info: Ben Martin Project Name: Spec House Model: Custom

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

Address: 157 SE Rachael Way, N/A

City: Columbia Cty State: FL

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

Name: License #:

Address:

City:

State:

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

Design Code: FBC2020/TPI2014

Wind Code: ASCE 7-16 Roof Load: 37.0 psf Design Program: MiTek 20/20 8.4

Wind Speed: 130 mph Floor Load: N/A psf

This package includes 12 individual, Truss Design Drawings and 0 Additional Drawings. With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

| No.       | Seal#  | Truss Name  | Date  |
|-----------|--|---|---|
| 123456789 | T25526080<br>T25526081<br>T25526082<br>T25526083<br>T25526084<br>T25526085<br>T25526086<br>T25526087 | CJ01<br>CJ02<br>CJ03<br>EJ01<br>HJ01<br>T01<br>T02<br>T03 | 10/1/21<br>10/1/21<br>10/1/21<br>10/1/21<br>10/1/21<br>10/1/21<br>10/1/21 |
| 9<br>10   | T25526088<br>T25526089   | T04<br>T05  | 10/1/21   |
| 11<br>12  | T25526090<br>T25526091   | T06<br>T06G   | 10/1/21   |



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

Truss Design Engineer's Name: ORegan, Philip

My license renewal date for the state of Florida is February 28, 2023.

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



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

October 1,2021

MARTIN - SPEC HOUSE Job Truss Truss Type Qty Ply T25526080 2946692 **CJ01** Jack-Open Job Reference (optional) 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09:06 2021 Page 1 ID:vzdV3XR3rUFqaq0h8uuE8xyXQw5-48BZnfeEfjUN5rjQUxPo\_E7k6nt5MHY2Hq8BciyXs8R Builders FirstSource (Lake City,FL), Lake City, FL - 32055, -1-6-0 1-6-0 Scale = 1:8.2 6.00 12 2 8-9-0 [2:0-2-0,0-0-12] Plate Offsets (X,Y)--GRIP SPACING-2-0-0 CSI DEFL I/defl L/d PLATES LOADING (psf) 244/190 20.0 Plate Grip DOL 1.25 TC 0.13 Vert(LL) 0.00 >999 240 MT20 TCLL 7.0 Lumber DOL 1.25 BC 0.03 Vert(CT) 0.00 >999 180 TCDL 0.0 \* Rep Stress Incr YES WB 0.00 Horz(CT) 0.00 2 n/a n/a BCLL FT = 20% Weight: 6 lb BCDL 10.0 Code FBC2020/TPI2014 Matrix-MP

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=38(LC 12)

Max Uplift 3=-6(LC 1), 2=-62(LC 12), 4=-19(LC 1) Max Grav 3=7(LC 8), 2=179(LC 1), 4=17(LC 16)

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

### NOTES- (7

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific
  to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 3, 62 lb uplift at joint 2 and 19 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Structural wood sheathing directly applied or 1-0-0 oc purlins.

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

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

October 1,2021

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

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and property 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

\*\*AMSITPH1 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 Truss Type Qty MARTIN - SPEC HOUSE T25526081 2946692 CJ02 Jack-Open 8 Job Reference (optional) 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09:07 2021 Page 1 Builders FirstSource (Lake City,FL), Lake City, FL - 32055 ID:vzdV3XR3rUFqaq0h8uuE8xyXQw5-ZLlx\_?esQ0cEi\_ld2fw1XSgvsBCk5koBWUul99yXs8Q Scale = 1:13.3 6.00 12 0-5-3 2x4 = Plate Offsets (X,Y)-[2:0-1-12,0-1-0] LOADING (psf) SPACING-2-0-0 DEFL. l/defl L/d **PLATES** in (loc) 20.0 Plate Grip DOL -0.00 244/190 TCLL 1.25 TC 0.13 Vert(LL) >999 240 MT20 TCDL 7.0 1.25 BC -0.01 180 Lumber DOL 0.07 Vert(CT) >999 0.0 Rep Stress Incr WB 0.00 BCLL YES Horz(CT) 0.00 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-MP Weight: 12 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=70(LC 12)

Max Uplift 3=-35(LC 12), 2=-53(LC 12)

Max Grav 3=60(LC 1), 2=210(LC 1), 4=50(LC 3)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 3 and 53 lb uplift at ioint 2.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

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

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

October 1,2021

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

Design valid for use only with MITE& connectors. This design is based only upon parameters and or with MITE& 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/TPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



MARTIN - SPEC HOUSE Qty Job Truss Truss Type T25526082 2946692 CJ03 Jack-Open Job Reference (optional)

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09:08 2021 Page 1
ID:vzdV3XR3rUFqaq0h8uuE8xyXQw5-1XJJBLfUBKk5K8tpcMRG3fD2DbWJqB2Kl8dlhbyXs8P Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 1-6-0 Scale = 1:18.6 6.00 12 0-5-3 3x4 = PLATES GRIP LOADING (psf) SPACING-2-0-0 CSI. DEFI (loc) I/defl I /d 244/190 TCLL 20.0 Plate Grip DOL 1.25 TC 0.28 Vert(LL) 0.03 4-7 >999 240 MT20 >999 180 TCDL 7.0 Lumber DOL 1.25 BC 0.24 Vert(CT) -0.05 4-7 BCLL 0.0 Rep Stress Incr YES WR 0.00 Horz(CT) 0.00 3 n/a n/a FT = 20% Code FBC2020/TPI2014 Weight: 18 lb BCDL 10.0 Matrix-MP BRACING-LUMBER-TOP CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins.

BOT CHORD 2x4 SP No.2

**BOT CHORD** 

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

REACTIONS.

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

Max Horz 2=104(LC 12)

Max Uplift 3=-66(LC 12), 2=-60(LC 12) Max Grav 3=113(LC 1), 2=276(LC 1), 4=89(LC 3)

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

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \*This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 66 lb uplift at joint 3 and 60 lb uplift at joint 2.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

October 1,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property language. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see AnsirtPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



Job Truss Truss Type Qty Ply MARTIN - SPEC HOUSE T25526083 2946692 EJ01 Jack-Partial 16 Job Reference (optional) 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09:09 2021 Page 1 Builders FirstSource (Lake City,FL), Lake City, FL - 32055, ID:vzdV3XR3rUFqaq0h8uuE8xyXQw5-VjtiPhg6yesyyIS?A3yVctI8T?nCYeIUzoNrD1yXs8O Scale: 1/2"=1" 6.00 12 3-11-3 0-5-3 3x4 = Plate Offsets (X,Y)-- [2:0-0-12,0-1-8] LOADING (psf) SPACING-2-0-0 CSI DEFL I/defl L/d **PLATES** GRIP TCLL 20.0 Plate Grip DOL 1.25 TC 0.64 Vert(LL) 0.10 4-7 >826 240 MT20 244/190 TCDL 7.0 Lumber DOL 1.25 BC 0.52 Vert(CT) -0.22 >381 180

LUMBER-

BCLL

BCDL

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

0.0

10.0

BRACING-

Horz(CT)

0.01

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

Weight: 25 lb

FT = 20%

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

n/a

n/a

REACTIONS.

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

Code FBC2020/TPI2014

Max Horz 2=133(LC 12)

Max Uplift 3=-84(LC 12), 2=-71(LC 12)

Rep Stress Incr

Max Grav 3=164(LC 1), 2=346(LC 1), 4=126(LC 3)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-11-4 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

WB 0.00

Matrix-MS

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

YES

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 84 lb uplift at joint 3 and 71 lb uplift at
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

October 1,2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MTP-86 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 

ANSITP! Quality Criteria, DSB-39 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



MARTIN - SPEC HOUSE Qtv Job Truss Truss Type T25526084 2946692 HJ01 Diagonal Hip Girder | Job Reference (optional) 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09:10 2021 Page 1 Lake City, FL - 32055, Builders FirstSource (Lake City,FL), ID:vzdV3XR3rUFqaq0h8uuE8xyXQw5-zwR4c1hkjx\_pZS1CjnTk94lJoP6oH?cdCS6PlUyXs8N 9-10-13 4-6-0 4-6-0 Scale = 1:23.7 4.24 12 3x4 = 3 0-4-15 6 14 7 2x4 || 3x4 = 9-10-13 PLATES GRIP SPACING-2-0-0 CSI. DEFI (loc) I/defl 1 /d LOADING (psf) 244/190 240 20.0 Plate Grip DOL 1.25 TC 0.60 Vert(LL) -0.06 6-7 >999 MT20 TCLL BC >953 180 7.0 Lumber DOL 1 25 0.62 Vert(CT) -0.126-7 TCDL 0.0 Rep Stress Incr NO WR 0 44 Horz(CT) 0.01 5 n/a n/a BCLL FT = 20% Weight: 44 lb Code FBC2020/TPI2014 Matrix-MS BCDL 10.0 BRACING-LUMBER-TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. TOP CHORD 2x4 SP No.2 **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

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

REACTIONS.

(size) 4=Mechanical, 2=0-4-15, 5=Mechanical

Max Horz 2=145(LC 4)

Max Uplift 4=-77(LC 4), 2=-137(LC 4), 5=-49(LC 8) Max Grav 4=151(LC 1), 2=529(LC 1), 5=298(LC 1)

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

TOP CHORD 2-3=-790/166

**BOT CHORD** 2-7=-202/718, 6-7=-202/718 3-7=0/281, 3-6=-757/213 WEBS

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 4, 137 lb uplift at joint 2 and 49 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 60 lb down and 63 lb up at 1-5-12, 60 lb down and 63 lb up at 1-5-12, 21 lb down and 38 lb up at 4-3-11, 21 lb down and 38 lb up at 4-3-11, and 42 lb down and 77 lb up at 7-1-10, and 42 lb down and 77 lb up at 7-1-10 on top chord, and 16 lb down and 39 lb up at 1-5-12, 16 lb down and 39 lb up at 1-5-12, 22 lb down at 4-3-11, 22 lb down at 4-3-11, and 41 lb down at 7-1-10, and 41 lb down at 7-1-10 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard

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

Uniform Loads (plf)

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

Concentrated Loads (lb)

Vert: 7=-4(F=-2, B=-2) 12=-74(F=-37, B=-37) 15=-57(F=-29, B=-29)



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

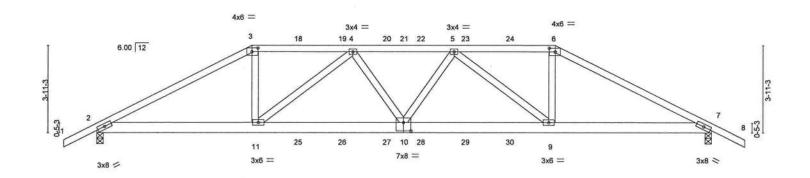
October 1,2021

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 property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see Ansi/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



| Job ,                | Truss                   | Truss Type      |        | Qty       | Ply        | MARTIN - SPEC HOUSE               | 1 A 1 T T T T T T T T T T T T T T T T T |
|----------------------|-------------------------|-----------------|--------|-----------|------------|-----------------------------------|---|
| 2946692              | T01                     | Hip Girder      |        | 2         | 1          | 10                                | T2552608                                |
|                      |                         |                 |        |           |            | Job Reference (optional)          |   |
| Builders FirstSource | (Lake City,FL), Lake Ci | ty, FL - 32055, |        |           | 8.430 s A  | ug 16 2021 MiTek Industries, Inc. | Fri Oct 1 07:09:12 2021 Page 1          |
|                      |                         |                 | ID:vz  | dV3XR3rUF | qaq0h8uuE8 | 3xyXQw5-vIYq1ji?FZEXpmBarCW       | CEVNcACjSlqRwfmbWqMyXs8L                |
| , -1-6-0 ,           | 7-0-0                   | 11-6-11         | 16-1-5 |           | 20-8-      | 0 27-8                            | 3-0 , 29-2-0 ,                          |
| 1-6-0                | 7-0-0                   | 4-6-11          | 4-6-11 |           | 4-6-1      | 1 7-0                             | -0 1-6-0                                |

Scale = 1:50.0



|             | 1         | 7-0-0                       |                  | 13-10    | -0   |          | 20-8  | 3-0   |        | T   | 27-8-0         | 9        |
|-------------|-----------|-----------------------------|------------------|----------|------|----------|-------|-------|--------|-----|----------------|----------|
|             | ,         | 7-0-0                       | - 1              | 6-10-    | 0    |          | 6-10  | 0-0   |        |     | 7-0-0          |          |
| Plate Offse | ets (X,Y) | [3:0-3-4,0-2-0], [6:0-3-4,0 | -2-0], [10:0-4-0 | 0,0-4-8] |      |          |       |       |        |     |                |          |
| LOADING     | (psf)     | SPACING-                    | 2-0-0            | CSI.     |      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
| TCLL        | 20.0      | Plate Grip DOL              | 1.25             | TC       | 0.73 | Vert(LL) | -0.20 | 10    | >999   | 240 | MT20           | 244/190  |
| TCDL        | 7.0       | Lumber DOL                  | 1.25             | BC       | 0.93 | Vert(CT) | -0.38 | 9-10  | >871   | 180 |                |          |
| BCLL        | 0.0       | Rep Stress Incr             | NO               | WB       | 0.74 | Horz(CT) | 0.11  | 7     | n/a    | n/a |                |          |
| BCDL        | 10.0      | Code FBC2020/Ti             | PI2014           | Matri    | x-MS | 53. 3    |       |       |        |     | Weight: 151 lb | FT = 20% |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

3-6: 2x4 SP No.2

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

WEBS 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 7=0-3-8

Max Horz 2=62(LC 31)

Max Uplift 2=-537(LC 8), 7=-537(LC 9) Max Grav 2=2145(LC 1), 7=2145(LC 1)

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

TOP CHORD 2-3=-4092/993, 3-4=-3636/933, 4-5=-4636/1103, 5-6=-3636/934, 6-7=-4092/993

BOT CHORD 2-11=-849/3584, 10-11=-1085/4518, 9-10=-1073/4518, 7-9=-789/3584 **WEBS** 

3-11=-200/1287, 4-11=-1201/367, 4-10=0/357, 5-10=0/357, 5-9=-1201/367,

6-9=-200/1287

### NOTES-

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 537 lb uplift at joint 2 and 537 lb uplift at
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 232 lb down and 172 lb up at 7-0-0, 110 lb down and 88 lb up at 9-0-12, 110 lb down and 88 lb up at 11-0-12, 110 lb down and 87 lb up at 13-0-12, 110 lb down and 87 lb up at 14-7-4, 110 lb down and 88 lb up at 16-7-4, and 110 lb down and 88 lb up at 18-7-4, and 232 lb down and 172 lb up at 20-8-0 on top chord, and 333 lb down and 75 lb up at 7-0-0, 86 lb down at 9-0-12, 86 lb down at 11-0-12, 86 lb down at 13-0-12, 86 lb down at 14-7-4, 86 lb down at 16-7-4, and 86 lb down at 18-7-4, and 333 lb down and 75 lb up at 20-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).
- 10) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

LOAD CASE(S) Standard



Structural wood sheathing directly applied or 2-3-15 oc purlins.

Rigid ceiling directly applied or 7-1-7 oc bracing.

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

October 1,2021

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 property incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSITPIT Quality Criteria, DSB-89 and BCSI Building Composately Information

available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



| Job     | Truss | Truss Type | Qty | Ply | MARTIN - SPEC HOUSE T25526085              |
|---------|-------|------------|-----|-----|--|
| 2946692 | T01   | Hip Girder | 2   | 1   | NET THE COLORS WHICH CAP TO SAFEL COLORS I |
|         |       | 179        |     |     | Job Reference (optional)                   |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09:12 2021 Page 2 ID:vzdV3XR3rUFqaq0h8uuE8xyXQw5-vIYq1ji?FZEXpmBarCWCEVNcACjSlqRwfmbWqMyXs8L

LOAD CASE(S) Standard

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

Vert: 1-3=-54, 3-6=-54, 6-8=-54, 12-15=-20

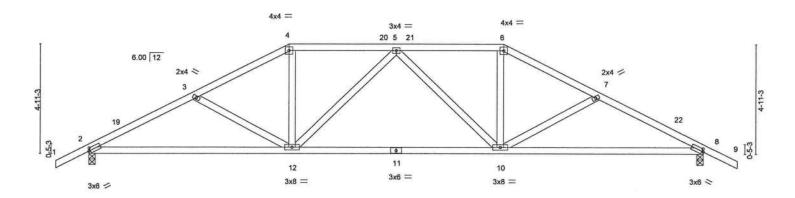
Concentrated Loads (ib)

Vert: 3=-185(F) 6=-185(F) 11=-333(F) 9=-333(F) 18=-110(F) 19=-110(F) 20=-110(F) 22=-110(F) 23=-110(F) 24=-110(F) 25=-64(F) 26=-64(F) 27=-64(F) 28=-64(F) 29=-64(F) 30=-64(F) 30=-64(F



| Job .                | Truss             |                 | Truss Type |   | Qty             | Ply       | MARTIN - SPEC HOUSE         |                         | 9.0000000000000000000000000000000000000 |
|----------------------|-------------------|-----------------|------------|---|-----------------|-----------|-----------------------------|-------------------------|---|
| 2946692              | T02               |                 | Hip        |   | 2               |           | 1                           |                         | T25526086                               |
|                      |                   |                 |            | THE REPORT OF THE PARTY OF THE |                 |           | Job Reference (optional)    |                         |   |
| Builders FirstSource | e (Lake City,FL), | Lake City, FL - | 32055,     |   |                 | 8.430 s   | Aug 16 2021 MiTek Industrie | s, Inc. Fri Oct 1 07:09 | :13 2021 Page 1                         |
|                      |                   |                 |            |   | ID:vzdV3XR3rUFq | q0h8uuE8x | xyXQw5-NV6CF3jd0sMOQvmi     | mPv1RmjwvPc4QUPR        | 4uQL3MoyXs8K                            |
| -1-6-0               | 4-9-15            | 9-0             | -0         | 13-10-0   | 18-1            | 1-0       | 22-10-1                     | 27-8-0                  | , 29-2-0 ,                              |
| 1-6-0                | 4-9-15            | 4-2             | -1         | 4-10-0  | 4-10            | 1-0       | 4-2-1                       | 4-9-15                  | 1-6-0                                   |

Scale = 1:50.0



|             | 9-0-0     |                            |          | -1     | 18-8-0 |          |       |       |        | 27-8-0 |                |          |  |  |
|-------------|-----------|----------------------------|----------|--------|--------|----------|-------|-------|--------|--------|----------------|----------|--|--|
|             |           | 9-0-0                      |          | 9-8-0  |        |          |       |       |        |        | 9-0-0          | 1        |  |  |
| Plate Offse | ets (X,Y) | [2:0-0-14,0-1-8], [8:0-0-1 | 4,0-1-8] |        |        |          |       |       |        |        |                |          |  |  |
| 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     | 0.26   | Vert(LL) | -0.13 | 10-12 | >999   | 240    | MT20           | 244/190  |  |  |
| TCDL        | 7.0       | Lumber DOL                 | 1.25     | BC     | 0.82   | Vert(CT) | -0.30 | 10-12 | >999   | 180    |                |          |  |  |
| BCLL        | 0.0       | Rep Stress Incr            | YES      | WB     | 0.25   | Horz(CT) | 0.07  | 8     | n/a    | n/a    |                |          |  |  |
| BCDL        | 10.0      | Code FBC2020/T             | PI2014   | Matrix | x-MS   |          |       |       |        |        | Weight: 137 lb | FT = 20% |  |  |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2

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

2x4 SP No.3 WEBS

REACTIONS.

(size) 2=0-3-8, 8=0-3-8 Max Horz 2=-76(LC 13)

Max Uplift 2=-238(LC 12), 8=-238(LC 13)

Max Grav 2=1105(LC 1), 8=1105(LC 1)

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

TOP CHORD 2-3=-1831/381, 3-4=-1578/316, 4-5=-1374/310, 5-6=-1374/310, 6-7=-1578/316,

7-8=-1831/382

**BOT CHORD** 2-12=-344/1591, 10-12=-222/1520, 8-10=-274/1591

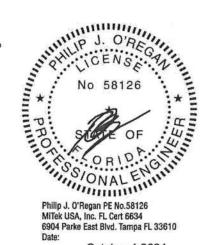
WEBS 3-12=-268/156, 4-12=-61/467, 5-12=-293/128, 5-10=-293/128, 6-10=-61/467,

7-10=-268/156

### NOTES-

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 9-0-0, Exterior(2R) 9-0-0 to 13-2-15, Interior(1) 13-2-15 to 18-8-0, Exterior(2R) 18-8-0 to 22-11-15, Interior(1) 22-11-15 to 29-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \*This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 238 lb uplift at joint 2 and 238 lb uplift at joint 8.
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

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

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

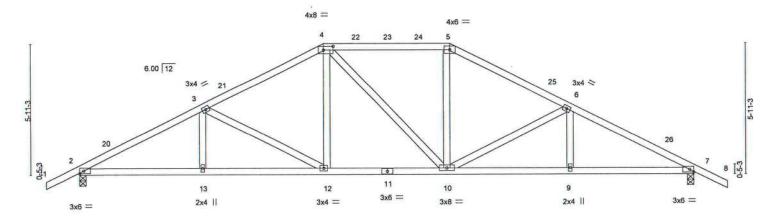
October 1,2021

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 property incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 
ANSI/TPH Quality Criteria, DSB-39 and BCSI Building Comp Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



| Job                    | Truss          | Truss Type             | Qty         | y Ply | MARTIN - SPEC HO      | OUSE  | T25526087 |
|------------------------|----------------|------------------------|-------------|-------|-----------------------|---|-----------|
| 2946692                | Т03            | Hip                    | 2           | 1     | Job Reference (option | onal)   |           |
| Builders FirstSource ( | Lake City,FL), | Lake City, FL - 32055, | ID:vzdV3XR3 |       | Aug 16 2021 MiTek Inc | dustries, Inc. Fri Oct 1 07:09<br>AVF23KzydYgJwT1j0WYDo |           |
| , -1-6-0               | 5-6-14         | 11-0-0                 | 16-8-0      |       | 22-1-2                | 27-8-0  | 29-2-0    |
| 1-6-0                  | 5-6-14         | 5-5-2                  | 5-8-0       | 9     | 5-5-2                 | 5-6-14  | 1-6-0     |

Scale = 1:50.0



|             | 1         | 5-6-14          | 11-0-  | 0    | T.    | 16-8-0   | -1    |       | 22-1-2 |     | 27-8-0         |          |
|-------------|-----------|-----------------|--------|------|-------|----------|-------|-------|--------|-----|----------------|----------|
|             | ,         | 5-6-14          | 5-5-2  | 2    | 1     | 5-8-0    | - 1   |       | 5-5-2  |     | 5-6-14         |          |
| Plate Offse | ets (X,Y) | [4:0-5-4,0-2-0] |        |      |       |          |       |       |        |     | ,              |          |
| 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   | 0.41  | Vert(LL) | -0.08 | 12-13 | >999   | 240 | MT20           | 244/190  |
| TCDL        | 7.0       | Lumber DOL      | 1.25   | BC   | 0.44  | Vert(CT) | -0.16 | 12-13 | >999   | 180 |                |          |
| BCLL        | 0.0 *     | Rep Stress Incr | YES    | WB   | 0.33  | Horz(CT) | 0.06  | 7     | n/a    | n/a |                |          |
| BCDL        | 10.0      | Code FBC2020/T  | PI2014 | Matr | ix-MS | 2.5      |       |       |        |     | Weight: 144 lb | FT = 20% |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 7=0-3-8

Max Horz 2=90(LC 12)

Max Uplift 2=-236(LC 12), 7=-236(LC 13) Max Grav 2=1105(LC 1), 7=1105(LC 1)

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

TOP CHORD 2-3=-1845/356, 3-4=-1423/313, 4-5=-1218/312, 5-6=-1423/313, 6-7=-1844/357

BOT CHORD 2-13=-332/1594, 12-13=-332/1594, 10-12=-174/1218, 9-10=-254/1593, 7-9=-254/1593

3-12=-439/179, 4-12=-50/370, 5-10=-44/370, 6-10=-439/180 WEBS

### NOTES-

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-2-15, Interior(1) 15-2-15 to 16-8-0, Exterior(2R) 16-8-0 to 20-10-15, Interior(1) 20-10-15 to 29-2-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Provide adequate drainage to prevent water ponding.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 236 lb uplift at joint 2 and 236 lb uplift at
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Structural wood sheathing directly applied or 4-2-11 oc purlins.

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

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

October 1,2021

🛦 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters shown, and is for an individual building component, not building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see 

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



6904 Parke East Blvd. Tampa, FL 36610

MARTIN - SPEC HOUSE Job . Truss Truss Type Qty Ply T25526088 T04 2 2946692 Hip 1 Job Reference (optional) 8.430 s Aug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09:15 2021 Page 1 Builders FirstSource (Lake City,FL), Lake City, FL - 32055, ID:vzdV3XR3rUFqaq0h8uuE8xyXQw5-KtEzfkltYUd6gDv9WK3vs8?C8QqRyEpMMkqARhyXs8I

1-8-0

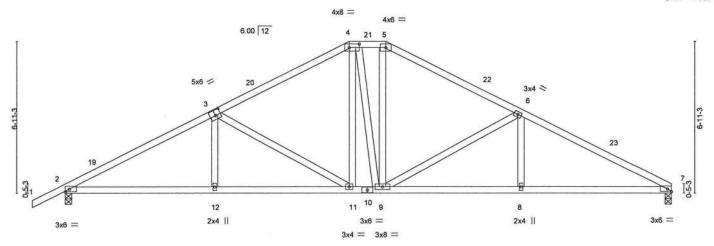
20-10-0

6-2-0

13-0-0 6-2-0

Scale = 1:50.7

6-10-0



| 1         | 6-10-0                        | 1   | 13   | -0-0                  | 14-8-0  |  | 20-1  | 0-0  |   | 27-0-0  |   |
|-----------|-------------------------------|---|--|-----------------------|---|--|---|--|---|---|---|
|           | 6-10-0                        | ,   | 6-   | 2-0                   | 1-8-0   |  | 6-2   | -0   |   | 6-10-0  | 1   |
| ets (X,Y) | [3:0-3-0,0-3-0], [4:0-5-8,0   | -2-0]   |  |                       |   | 4-1-   |   |  |   |   |   |
| (psf)     | SPACING-                      | 2-0-0   | CSI.   |                       | DEFL.   | in   | (loc)   | I/defl   | L/d   | PLATES  | GRIP  |
| 20.0      | Plate Grip DOL                | 1.25  | TC   | 0.43                  | Vert(LL)  | -0.08  | 11-12   | >999   | 240   | MT20  | 244/190   |
| 7.0       | Lumber DOL                    | 1.25  | BC   | 0.53                  | Vert(CT)  | -0.17  | 11-12   | >999   | 180   |   |   |
| 0.0 *     | Rep Stress Incr               | YES   | WB   | 0.57                  | Horz(CT)  | 0.06   | 7   | n/a  | n/a   |   |   |
| 10.0      | Code FBC2020/T                | PI2014  | Matrix   | c-MS                  |   |  |   |  |   | Weight: 148 lb  | FT = 20%  |
|           | (psf)<br>20.0<br>7.0<br>0.0 * | 6-10-0 ets (X,Y) [3:0-3-0,0-3-0], [4:0-5-8,0  (psf) SPACING- 20.0 Plate Grip DOL 7.0 Lumber DOL 0.0 Rep Stress Incr | 6-10-0 ets (X,Y) [3:0-3-0,0-3-0], [4:0-5-8,0-2-0]  (psf) SPACING- 2-0-0 20.0 Plate Grip DOL 1.25 7.0 Lumber DOL 1.25 0.0 Rep Stress Incr YES | SPACING- 2-0-0   CSI. | 6-10-0 6-2-0  ets (X,Y) [3:0-3-0,0-3-0], [4:0-5-8,0-2-0]  (psf) SPACING- 2-0-0 CSI.  20.0 Plate Grip DOL 1.25 TC 0.43  7.0 Lumber DOL 1.25 BC 0.53  0.0 * Rep Stress Incr YES WB 0.57 | 6-10-0 6-2-0 1-8-0 ets (X,Y) [3:0-3-0,0-3-0], [4:0-5-8,0-2-0]  (psf) SPACING- 2-0-0 CSI. DEFL. 20.0 Plate Grip DOL 1.25 TC 0.43 Vert(LL) 7.0 Lumber DOL 1.25 BC 0.53 Vert(CT) 0.0 Rep Stress Incr YES WB 0.57 Horz(CT) | 6-10-0 6-2-0 1-8-0  ets (X,Y) [3:0-3-0,0-3-0], [4:0-5-8,0-2-0]  (psf) SPACING- 2-0-0 CSI. DEFL. in 20.0 Plate Grip DOL 1.25 TC 0.43 Vert(LL) -0.08 7.0 Lumber DOL 1.25 BC 0.53 Vert(CT) -0.17 0.0 * Rep Stress Incr YES WB 0.57 Horz(CT) 0.06 | 6-10-0 6-2-0 1-8-0 6-2 ets (X,Y) [3:0-3-0,0-3-0], [4:0-5-8,0-2-0]  (psf) SPACING- 2-0-0 CSI. DEFL. in (loc) 20.0 Plate Grip DOL 1.25 TC 0.43 Vert(LL) -0.08 11-12 7.0 Lumber DOL 1.25 BC 0.53 Vert(CT) -0.17 11-12 0.0 * Rep Stress Incr YES WB 0.57 Horz(CT) 0.06 7 | SPACING- 2-0-0   CSI.   DEFL.   in (loc)   l/defl | 6-10-0 6-2-0 1-8-0 6-2-0  ets (X,Y) [3:0-3-0,0-3-0], [4:0-5-8,0-2-0]  (psf) SPACING- 2-0-0 CSI. DEFL. in (loc) I/defl L/d  20.0 Plate Grip DOL 1.25 TC 0.43 Vert(LL) -0.08 11-12 >999 240  7.0 Lumber DOL 1.25 BC 0.53 Vert(CT) -0.17 11-12 >999 180  0.0 * Rep Stress Incr YES WB 0.57 Horz(CT) 0.06 7 n/a n/a | Columber   Columber |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

2x4 SP No.3 WEBS

(size) 7=0-3-8, 2=0-3-8 Max Horz 2=115(LC 12)

Max Uplift 7=-201(LC 13), 2=-233(LC 12) Max Grav 7=1021(LC 1), 2=1107(LC 1)

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

TOP CHORD

REACTIONS.

2-3=-1809/340, 3-4=-1279/290, 4-5=-1076/290, 5-6=-1281/294, 6-7=-1820/347

**BOT CHORD** 

2-12=-331/1553, 11-12=-330/1554, 9-11=-141/1075, 8-9=-246/1564, 7-8=-246/1564

3-12=0/274, 3-11=-566/219, 4-11=-78/339, 5-9=-85/348, 6-9=-577/226, 6-8=0/273 WEBS

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 13-0-0, Exterior(2E) 13-0-0 to 14-8-0, Exterior(2R) 14-8-0 to 18-10-15, Interior(1) 18-10-15 to 27-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

4) Provide adequate drainage to prevent water ponding.

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

- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 201 lb uplift at joint 7 and 233 lb uplift at
- 8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Structural wood sheathing directly applied or 3-11-8 oc purlins.

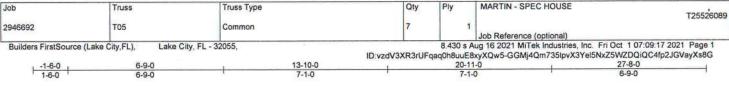
Rigid ceiling directly applied or 10-0-0 oc bracing.

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

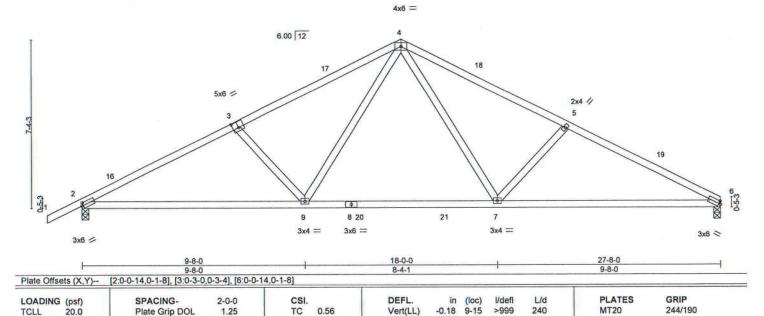
October 1,2021

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





Scale: 1/4"=1"



Vert(CT)

Horz(CT)

BRACING-

TOP CHORD

BOT CHORD

-0.39 7-12

0.06

>853

n/a

180

n/a

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

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

LUMBER-

TCDL

BCLL

BCDL

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

7.0

0.0

WEBS 2x4 SP No.3

REACTIONS.

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

Max Horz 2=121(LC 12) Max Uplift 6=-200(LC 13), 2=-231(LC 12) Max Grav 6=1118(LC 2), 2=1188(LC 2)

Lumber DOL

Rep Stress Incr

Code FBC2020/TPI2014

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

2-3=-1903/372, 3-4=-1717/357, 4-5=-1722/368, 5-6=-1915/385 TOP CHORD

2-9=-349/1670, 7-9=-129/1117, 6-7=-284/1685 BOT CHORD

4-7=-147/705, 5-7=-400/233, 4-9=-144/699, 3-9=-390/228 WEBS

### NOTES-

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 13-10-0, Exterior(2R) 13-10-0 to 16-10-0, Interior(1) 16-10-0 to 27-8-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.

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

1.25

YES

BC

WB

Matrix-MS

0.93

0.27

- 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 200 lb uplift at joint 6 and 231 lb uplift at joint 2.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



Weight: 127 lb

FT = 20%

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

October 1,2021

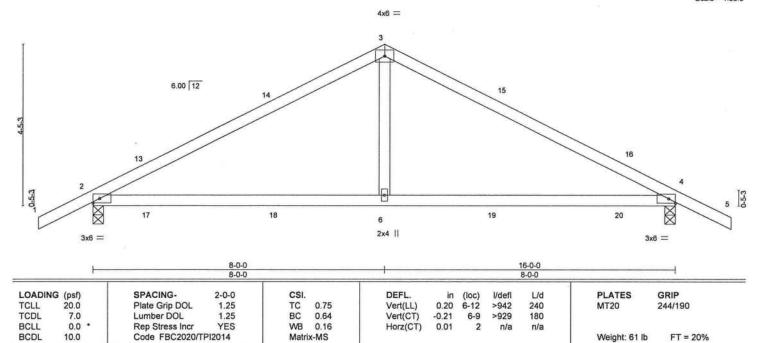
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE. Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building designer must verify the applicability of design parameters and properly incorporate this design into the overall building designer flowing individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and 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/THI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20801



6904 Parke East Blvd. Tampa, FL 36610

| Job .                      | Truss               | Truss Type        | Qty  | Ply        | MARTIN - SPEC HOUSE                               |                |
|----------------------------|---------------------|-------------------|--|------------|---|----------------|
| 2946692                    | T06                 | Common            | 3  | 1          |   | T25526090      |
|                            | V                   |                   |  |            | Job Reference (optional)                          |                |
| Builders FirstSource (Lake | ke City,FL), Lake ( | City, FL - 32055, | - 8  | 3.430 s Ai | ug 16 2021 MiTek Industries, Inc. Fri Oct 1 07:09 | 17 2021 Page 1 |
|                            |                     |                   | ID:vzdV3XR3rUFqaq  | 0h8uuE8    | xyXQw5-GGMj4Qm735tpvX3Yel5NxZ5TbDU9QE             | qfp2JGVayXs8G  |
| -1-6-0                     |                     | 8-0-0             | The second secon |            | 16-0-0  | 17-6-0         |
| 1-6-0                      |                     | 8-0-0             |  |            | 8-0-0   | 1-6-0          |

Scale = 1:30



BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

REACTIONS.

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

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

Max Horz 2=69(LC 12)

Max Uplift 2=-159(LC 9), 4=-159(LC 8) Max Grav 2=673(LC 1), 4=673(LC 1)

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

TOP CHORD 2-3=-821/819, 3-4=-821/820

BOT CHORD 2-6=-616/653, 4-6=-616/653

WEBS 3-6=-466/364

### NOTES- (7)

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 17-6-0 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific
  to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 2 and 159 lb uplift at joint 4.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

Rigid ceiling directly applied or 6-7-14 oc bracing.

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

October 1,2021

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

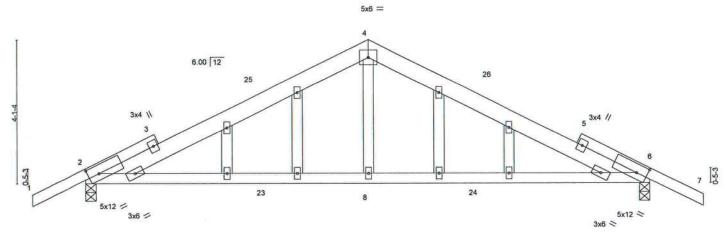
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and not for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

\*\*AMSUTP14 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 | MARTIN - SPEC HOUSE  | T25526091 |
|----------------------|----------------------|-------------------|-----------------|-----|--|-----------|
| 2946692              | T06G                 | GABLE             | 1               | 1   | Job Reference (optional)   |           |
| Builders FirstSource | (Lake City,FL), Lake | City, FL - 32055, | ID:vzdV3XR3rUFc |     | ug 16 2021 MiTek Industries, Inc. Fri Oct 1 07<br>BxyXQw5-CeTUV6oObi7X8qDwIA8r0_AuX1BO |           |
| -1-6-                | 0 ,                  | 8-0-0             | 1               |     | 16-0-0   | 17-6-0    |
| 1-6-0                | )                    | 8-0-0             |                 |     | 8-0-0  | 1-6-0     |

Scale = 1:31.5



|                        |               | -                           | 8-0-0         |       |      |                   |       |               |                | 16-0-0 |  |          |
|------------------------|---------------|-----------------------------|---------------|-------|------|-------------------|-------|---------------|----------------|--------|--|----------|
| Plate Offse            | ets (X Y)     | [2:0-3-9,0-2-14], [6:0-3-9, | 0-2-141       |       |      |                   |       |               |                | 8-0-0  |  |          |
|                        |               |                             |               | 001   |      | DEEL              | 1     | (las)         | U-I-B          | L/d    | PLATES   | GRIP     |
| <b>LOADING</b><br>TCLL | (pst)<br>20.0 | SPACING-<br>Plate Grip DOL  | 2-0-0<br>1.25 | CSI.  | 0.41 | DEFL.<br>Vert(LL) | 0.15  | (loc)<br>8-22 | I/defl<br>>999 | 240    | MT20   | 244/190  |
| TCDL                   | 7.0           | Lumber DOL                  | 1.25          | BC    | 0.53 | Vert(CT)          | -0.14 | 0.70          | >999           | 180    | District.                                      | 21100    |
| BCLL                   | 0.0 *         | Rep Stress Incr             | YES           | WB    | 0.12 | Horz(CT)          | 0.01  | 2             | n/a            | n/a    | 1 Distriction on Production State of Section 1 |          |
| BCDL                   | 10.0          | Code FBC2020/T              | PI2014        | Matri | x-MS | 6. 7              |       |               |                |        | Weight: 92 lb                                  | FT = 20% |

BRACING-

TOP CHORD

**BOT CHORD** 

LUMBER-

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

2-4,4-6: 2x6 SP No.2

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

**OTHERS** 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 6=0-3-8

Max Horz 2=62(LC 12)

Max Uplift 2=-158(LC 9), 6=-158(LC 8) Max Grav 2=670(LC 1), 6=670(LC 1)

FORCES. (ib) - Max. Comp./Max. Ten. - All forces 250 (ib) or less except when shown. TOP CHORD 2-4=-787/849, 4-6=-787/849 2-8=-678/704, 6-8=-678/704

4-8=-405/320 WEBS

### NOTES-(10)

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-4-13, Interior(1) 1-4-13 to 8-0-0, Exterior(2R) 8-0-0 to 11-0-0, Interior(1) 11-0-0 to 17-6-0 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 2 and 158 lb uplift at joint 6.
- 10) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.



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

Rigid ceiling directly applied or 6-7-11 oc bracing.

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

October 1,2021

MARNING - Verily 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 designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracking indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracking is always required for stability and to prevent uccliapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracking 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



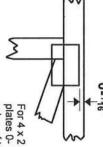
6904 Parke East Blvd. Tampa, FL 36610

### Symbols

# PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1,16" from outside edge of truss.

00

6

5

5

connector plates required direction of slots in This symbol indicates the

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

### PLATE SIZE



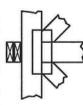
width measured perpendicular to slots. Second dimension is the length parallel to slots. The first dimension is the plate

## LATERAL BRACING LOCATION



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

### BEARING



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

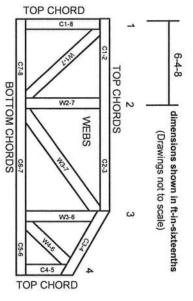
### Industry Standards:

ANSI/TPI1: National Design Specification for Metal Design Standard for Bracing. Plate Connected Wood Truss Construction

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

BCSI: DSB-89

## Numbering System



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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

# General Safety Notes

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

- 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 may require bracing, or alternative Tor I bracing should be considered. wide truss spacing, individual lateral braces themselves
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building all other interested parties. designer, erection supervisor, property owner and

4

- Cut members to bear tightly against each other
- Place plates on each face of truss at each locations are regulated by ANSI/TPI 1. oint and embed fully. Knots and wane at joint
- 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.

9

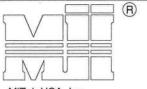
- Camber is a non-structural consideration and is the camber for dead load deflection responsibility of truss fabricator. General practice is to
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing. or less, if no ceiling is installed, unless otherwise noted
- 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 project engineer before use. environmental, health or performance risks. Consult with
- Review all portions of this design (front, back, words is not sufficient. and pictures) before use. Reviewing pictures alone
- 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.

|  | • |  |
|--|---|--|
|  |   |  |
|  |   |  |
|  |   |  |
|  |   |  |
|  |   |  |
|  |   |  |
|  |   |  |

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

MII-T-BRACE 2

MiTek USA, Inc. Page 1 of 1



MiTek USA, Inc.

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

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

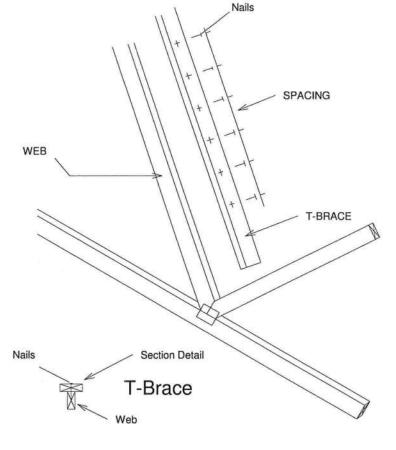
| Nailing Pattern   |                   |              |  |  |  |  |  |
|-------------------|-------------------|--------------|--|--|--|--|--|
| T-Brace size      | Nail Size         | Nail Spacing |  |  |  |  |  |
| 2x4 or 2x6 or 2x8 | 10d (0.131" X 3") | 6" o.c.      |  |  |  |  |  |

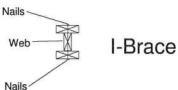
Note: Nail along entire length of T-Brace / I-Brace (On Two-Ply's Nail to Both Plies)

|            | Brace Size<br>for One-Ply Truss                 |             |  |  |  |  |
|------------|---|-------------|--|--|--|--|
|            | Specified Continuous<br>Rows of Lateral Bracing |             |  |  |  |  |
| Web Size   | 1   | 2           |  |  |  |  |
| 2x3 or 2x4 | 2x4 T-Brace                                     | 2x4 I-Brace |  |  |  |  |
| 2x6        | 2x6 T-Brace                                     | 2x6 I-Brace |  |  |  |  |
| 2x8        | 2x8 T-Brace                                     | 2x8 I-Brace |  |  |  |  |

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

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







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

### SCAB-BRACE DETAIL

### MII-SCAB-BRACE

MiTek USA, Inc.

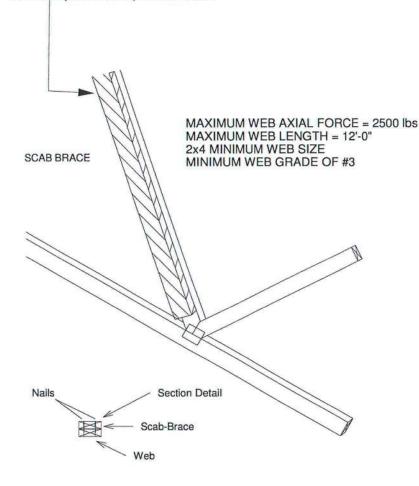
Page 1 of 1



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.



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

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

MII-REP05

MiTek USA, Inc. Page 1 of 1

February 12, 2018



MiTek USA, Inc. ENGINEERED BY

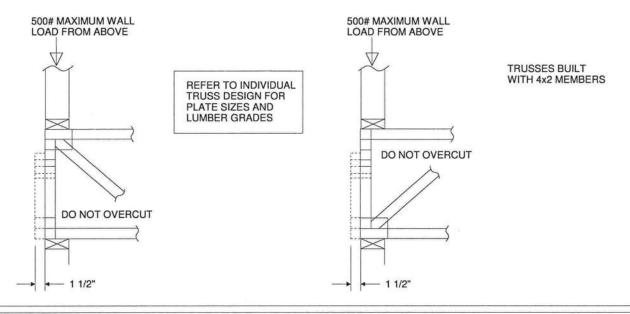
- 1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS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

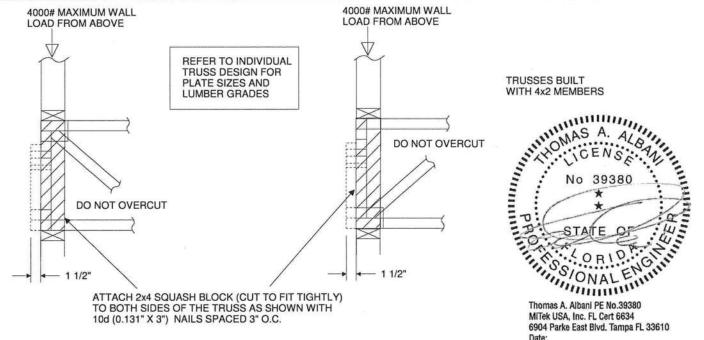
  2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.

  3. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE
- SUCH AS TO AVOID SPLITTING OF THE WOOD.

  4. LUMBER MUST BE CUT CLEANLY AND ACCURATELY AND THE REMAINING WOOD MUST BE UNDAMAGED.

  5. THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 4X\_ORIENTATION ONLY.
- 6. CONNECTOR PLATES MUST BE FULLY IMBEDDED AND UNDISTURBED.





### 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 NAILS AND ATTACHED

HORIZONTAL BRACE

(SEE SECTION A-A)

TO BLOCKING WITH (5) - 10d NAILS.

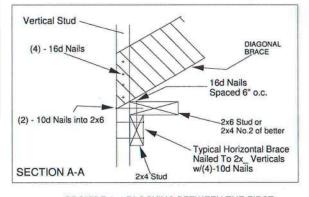
MiTek USA, Inc.



DIAGONAL BRACE 4'-0" O.C. MAX

Typical \_x4 L-Brace Nailed To Verticals W/10d Nails spaced 6" o.c. Vertical Stud SECTION B-B

TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.



Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 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 SHEATHING TO 2x4 STD SPF BLOCK

10d

NAILS

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

- MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
   CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
   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.
  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<br>Species<br>and Grade | 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 |  |  |
|--|-----------------|------------------|---------------------|----------------|-------------------|---------------------------------------|--|--|
|  |                 |                  | Maximum Stud Length |                |                   |                                       |  |  |
| 2x4 SP No. 3 / Stud                          | 12" O.C.        | 3-9-13           | 4-1-1               | 5-9-6          | 7-1-3             | 11-5-7                                |  |  |
| 2x4 SP No. 3 / Stud                          | 16" O.C.        | 3-5-4            | 3-6-8               | 5-0-2          | 6-10-8            | 10-3-13                               |  |  |
| 2x4 SP No. 3 / Stud                          | 24" O.C.        | 2-9-11           | 2-10-11             | 4-1-1          | 5-7-6             | 8-5-1                                 |  |  |

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

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

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



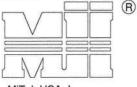
MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610 Date:

### Standard Gable End Detail

### MII-GE130-SP

Page 1 of 2

MiTek USA, Inc.



MiTek USA, Inc.

ENGINEERED BY 

DIAGONAL BRACE

4'-0" O.C. MAX

Typical \_x4 L-Brace Nailed To Verticals W/10d Nails spaced 6" o.c. Vertical Stud SECTION B-B

TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

3x4 =

24" Max

Diag. Brace

at 1/3 points

End Wall

if needed

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

> 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

> > (2)

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

- 10d NAILS

(5) - 10d NAILS.

Roof Sheathing

1'-3"

Max.

(4) - 8d (0.131" X2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD SPF BLOCK

(2) - 10d

NAILS

- Diagonal Bracing Refer to Section A-A

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

\*\*

### NOTE

- 1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS. 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. 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<br>Species<br>and Grade | 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 |  |  |
|--|-----------------|---------------------|----------------|----------------|-------------------|---------------------------------------|--|--|
|  |                 | Maximum Stud Length |                |                |                   |                                       |  |  |
| 2x4 SP No. 3 / Stud                          | 12" O.C.        | 4-0-7               | 4-5-6          | 6-3-8          | 8-0-15            | 12-1-6                                |  |  |
| 2x4 SP No. 3 / Stud                          | 16" O.C.        | 3-8-0               | 3-10-4         | 5-5-6          | 7-4-1             | 11-0-1                                |  |  |
| 2x4 SP No. 3 / Stud                          | 24" O.C.        | 3-0-10              | 3-1-12         | 4-5-6          | 6-1-5             | 9-1-15                                |  |  |

Diagonal braces over 6'-3" require a 2x4 T-Brace attached to one edge. Diagonal braces over 12'-6' require 2x4 l-braces attached to both edges. Fasten T and 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.

No 39380

STATE OF THE STATE OF

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

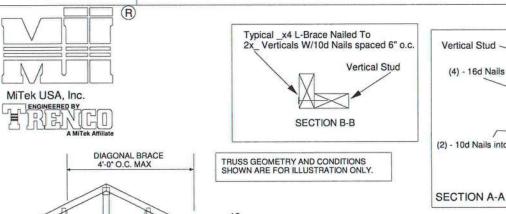


### Standard Gable End Detail

### MII-GE140-001

MiTek USA, Inc.

Page 1 of 2



Varies to Common Truss

SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

24" Max

3x4 =

Vertical Stud DIAGONAL (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

2x4 Stud

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

- Diagonal Bracing Refer to Section A-A

L-Bracing Refer to Section B-B

### NOTE:

- 1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS.
  2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.
  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG.
- ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
- 4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. 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.
  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")

| 1'-3"<br>Max.                             | (2) - 10d NAILS (2) - 10d NAILS   |
|---|---|
| 1   | Trusses @ 24" o.c.  |
| Diag. Brace<br>at 1/3 points<br>if needed | 2x6 DIAGONAL BRACE SPACED 48" O.C.<br>ATTACHED TO VERTICAL WITH (4) -16d<br>NAILS AND ATTACHED<br>TO BLOCKING WITH (5) - 10d NAILS. |
| End Wall                                  | HORIZONTAL BRACE (SEE SECTION A-A)  |
|   |   |

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

Roof Sheathing

| Minimum<br>Stud Size | Stud<br>Spacing | Without<br>Brace    | 1x4<br>L-Brace | L-Brace | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |  |  |
|----------------------|-----------------|---------------------|----------------|---------|-------------------|---------------------------------------|--|--|--|
| Species<br>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.

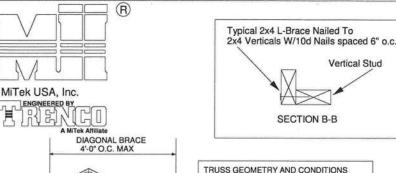


Thomas A. Albani PE No.39380 MITek USA, Inc. FL Cert 6634 6904 Parke East Blvd. Tampa FL 33610

January 19, 2018

### Standard Gable End Detail

### MII-GE170-D-SP



to Section B-B

Page 1 of 2 MiTek USA, Inc. 2X6 SP OR SPF No. 2 DIAGONAL BRACE 16d Nails Spaced 6" o.c. 2X6 SP OR SPF No. 2

Typical Horizontal Brace

Nailed To 2x4 Verticals w/(4)-10d Nails

2X4 SP OR SPF No. 2 PROVIDE 2x4 BLOCKING BETWEEN THE FIRST TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH

(5) - 10d NAILS.

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

Vertical Stud

(4) - 16d Nails

(2) - 10d Nails into 2x6

SECTION A-A

3x4 =

TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA \*\* - Diagonal Bracing L-Bracing Refer \*\*

Refer to Section A-A 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, SPF or SP No.3 OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
   DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF
- DIAPHRAM AT 4'-0" O.C.
- 6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
- 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. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
- NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

| 7              |  |
|----------------|--|
| Roof Sheathi   | ing— /   |
| 24" Max        |  |
| X              |  |
| 1'-0"          | (2) - 10d  |
| Max.           | (2) - 10d NAILS  |
| 2.             |  |
|                | V * *  |
|                | Trusses @ 24" o.c.   |
| 7              | 71103303 @ 24 0.0.   |
| / 5            | ξ λ" "   |
| Diag. Brace    |  |
| at 1/3 points/ | 2x6 DIAGONAL BRACE SPACED  |
| if needed      | 48" O.C. ATTACHED TO VERTICAL WITH (4) -16d NAILS, AND ATTACHED TO |
|                | BLOCKING WITH (5) -10d NAILS.                                      |
|                | 1  |
| End Wall       | HORIZONTAL BRACE   |
| Ziid Wali      | (SEE SECTION A-A)  |

| 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 |                 |                  | ud 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** 

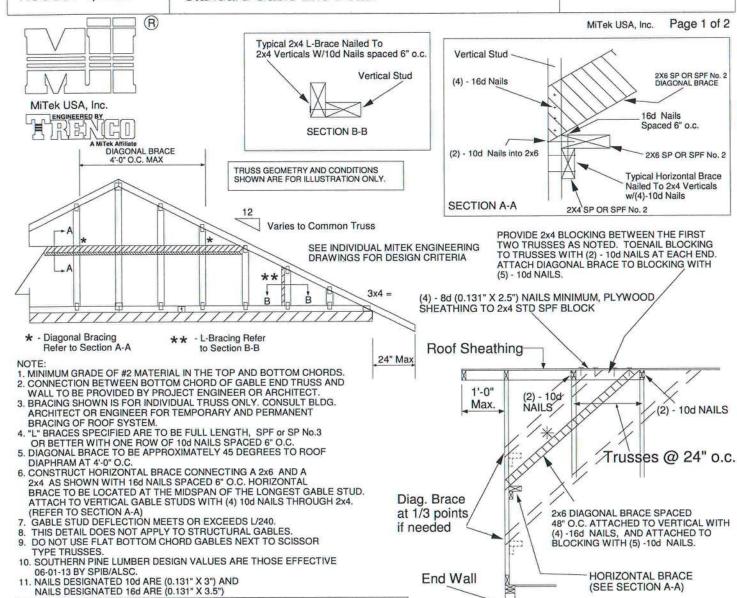
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING. CONNECTION OF BRACING IS BASED ON MWFRS.



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

### Standard Gable End Detail

### MII-GE180-D-SP



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



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

MiTek USA, Inc. Page 1 of 1

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MiTek USA, Inc.

DIRECTIONS AND:

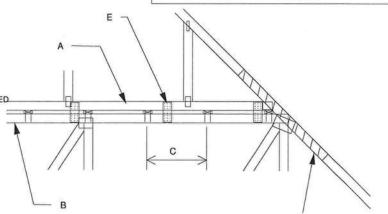
MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E MAX MEAN ROOF HEIGHT = 30 FEET MAX TRUSS SPACING = 24 " O.C. CATEGORY II BUILDING EXPOSURE B or C ASCE 7-10 **DURATION OF LOAD INCREASE: 1.60** 

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

A - 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"-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 IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH

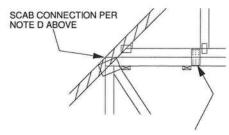
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR 2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft. E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH

MITEK 3X8 20 GA NAII-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 REO. REGARDLESS OF SPAN)

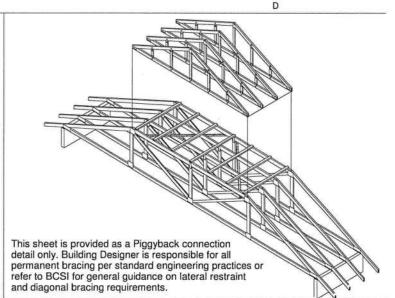


### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

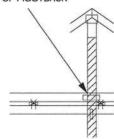
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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:

1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP

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.)

(MINIMINION EXPENDING IN 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.



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

### STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

### MII-PIGGY-ALT 7-10

MiTek USA, Inc. Page 1 of 1

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

**DURATION OF LOAD INCREASE: 1.60** 

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



A - 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(0.131\* X 3.5") TOE-NAILED.
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C.
UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.
CONNECT TO BASE TRUSS WITH (2) (0.131\* X 3.5") NAILS EACH.
D - 2 X \_ X 4"-0" SCAB, SIZE TO MATCH TOP CHORD OF
PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON
INTERSECTION, WITH (2) ROWS OF (0.131\* X 3") NAILS @ 4" O.C.
SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING
IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH
DIRECTIONS AND:

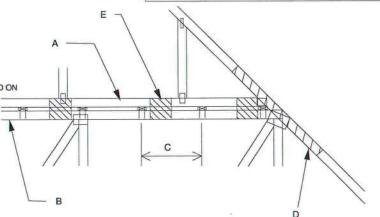
IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:

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.

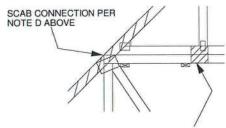
E - FOR WIND SPEED IN THE RANGE 126 MPH - 160 MPH ADD 9" x 9" x 11/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH

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

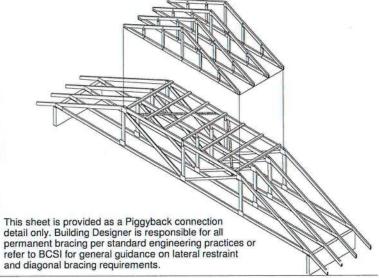


### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

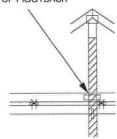
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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:

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

AS SHOWN IN DE FAIL.
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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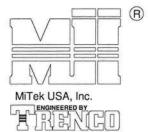
January 19, 2018

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

### MII-REP01A1

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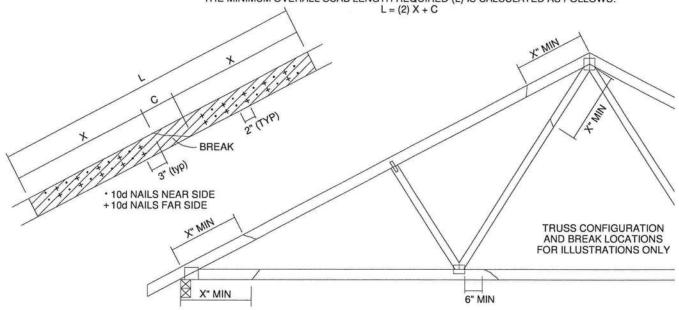


| TOTAL NUMBER OF NAILS EACH SIDE X OF BREAK* INCHES |     | MAXIMUM FORCE (lbs) 15% LOAD DURATION |      |      |      |      |      |      |      |      |
|--|-----|---------------------------------------|------|------|------|------|------|------|------|------|
|  |     |                          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

\* DIVIDE EQUALLY FRONT AND BACK

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

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



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

### DO NOT USE REPAIR FOR JOINT SPLICES

### NOTES:

- NOTES:

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

  2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE 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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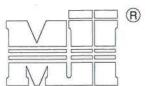
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### LATERAL TOE-NAIL DETAIL

MII-TOENAIL SP

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ENGINEERED BY

- 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

> SIDE VIEW (2x3) 2 NAILS

> > NEAR SIDE NEAR SIDE

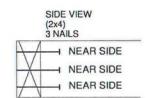
|            | DIAM. | SP    | DF   | HF   | SPF  | SPF-S |
|------------|-------|-------|------|------|------|-------|
| 3.5" LONG  | .131  | 88.0  | 80.6 | 69.9 | 68.4 | 59.7  |
|            | .135  | 93.5  | 85.6 | 74.2 | 72.6 | 63.4  |
|            | .162  | 108.8 | 99.6 | 86.4 | 84.5 | 73.8  |
| 3.25" LONG | .128  | 74.2  | 67.9 | 58.9 | 57.6 | 50.3  |
|            | .131  | 75.9  | 69.5 | 60.3 | 59.0 | 51.1  |
|            | .148  | 81.4  | 74.5 | 64.6 | 63.2 | 52.5  |

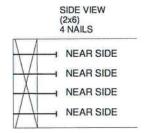
VALUES SHOWN ARE CAPACITY PER TOE-NAIL APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

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

For load duration increase of 1.15:

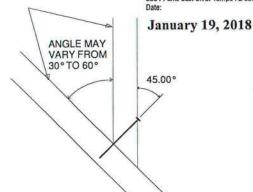
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

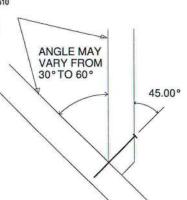


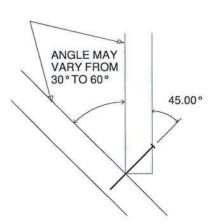




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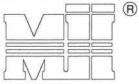


### TRUSSED VALLEY SET DETAIL

### MII-VALLEY HIGH WIND1

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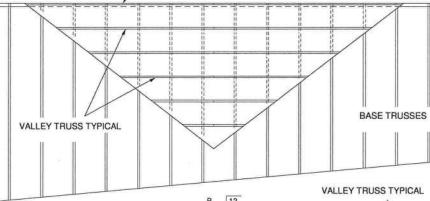
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GABLE END, COMMON TRUSS OR GIRDER TRUSS

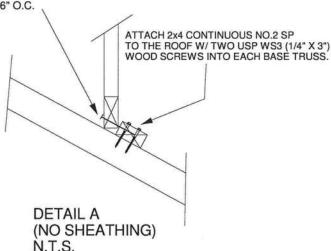
### GENERAL SPECIFICATIONS

- 1. NAIL SIZE 10d (0.131" X 3")
  2. WOOD SCREW = 3" WS3 USP OR EQUIVALENT DO NOT USE DRYWALL OR DECKING TYPE SCREW
- 3. INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND SECURE PER DETAIL A
- 4. BRACE VALLEY WEBS IN ACCORDANCE WITH THE INDIVIDUAL DESIGN DRAWINGS.
- 5. BASE TRUSS SHALL BE DESIGNED WITH A PURLIN SPACING
- 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 12 OR GIRDER TRUSS 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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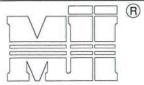
January 19, 2018

### TRUSSED VALLEY SET DETAIL

MII-VALLEY HIGH WIND2

MiTek USA, Inc.

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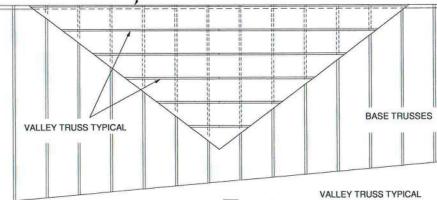


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GABLE END, COMMON TRUSS OR GIRDER TRUSS

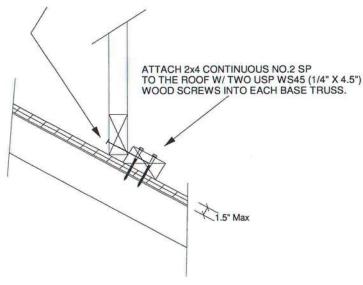
**GENERAL SPECIFICATIONS** 

- 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 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

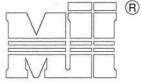
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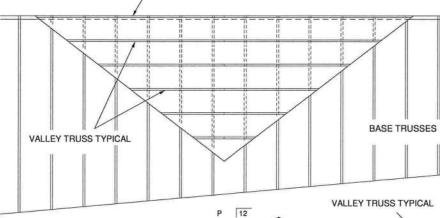


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GABLE END, COMMON TRUSS OR GIRDER TRUSS

### **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.)

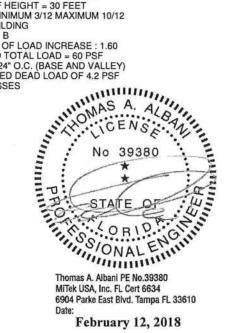
W/ ONE ROW OF 16d NAILS 6" O.C. ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/ TWO 16d NAILS INTO EACH BASE TRUSS.

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

SECURE VALLEY TRUSS

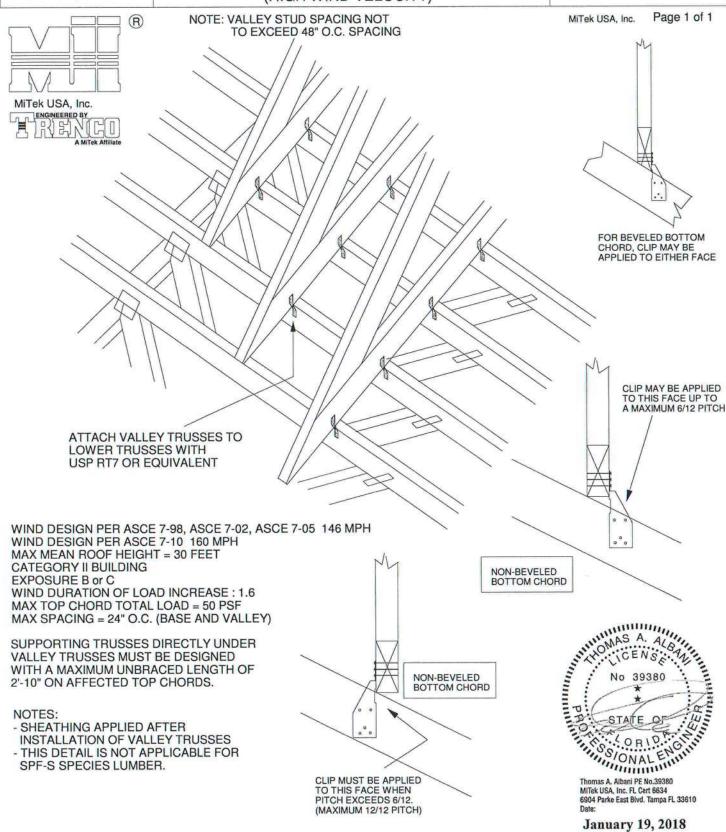
WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH WIND DESIGN PER ASCE 7-10 150 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12 CATEGORY II BUILDING EXPOSURE C OR B WIND DURATION OF LOAD INCREASE : 1.60 MAX TOP CHORD TOTAL LOAD = 60 PSF MAX SPACING = 24" O.C. (BASE AND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

ON THE TRUSSES



### TRUSSED VALLEY SET DETAIL (HIGH WIND VELOCITY)

MII-VALLEY





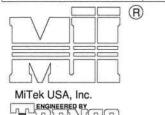
E IN E

### Standard Gable End Detail

### MII-GE146-001

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DIAGONAL BRACE

4'-0" O.C. MAX

Typical \_x4 L-Brace Nailed To Verticals W/10d Nails spaced 6" o.c. Vertical Stud SECTION B-B

TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss

> SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA

> > 3x4 =

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

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

- Diagonal Bracing Refer to Section A-A

L-Bracing Refer to Section B-B

\*\*

### NOTE:

1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS. 2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND

WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.

3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG.

ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.

4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES:
2x4 No 3/STUD SP OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.

5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF

DIAPHRAM AT 4'-0" O.C.

6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)

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.

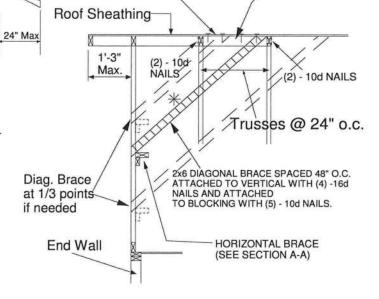
NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

| Minimum<br>Stud Size | Stud<br>Spacing | Without<br>Brace    | 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.        | 3-11-3              | 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 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.



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



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January 19, 2018

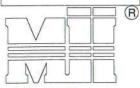
**OCTOBER 5, 2016** 

### REPLACE BROKEN OVERHANG

MII-REP13B

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MiTek USA, Inc.

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** 

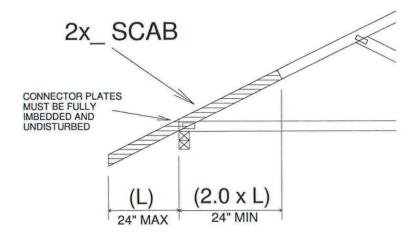
NOTES:

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.



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



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

### LATERAL BRACING RECOMMENDATIONS

### MII-STRGBCK

MiTek USA, Inc.

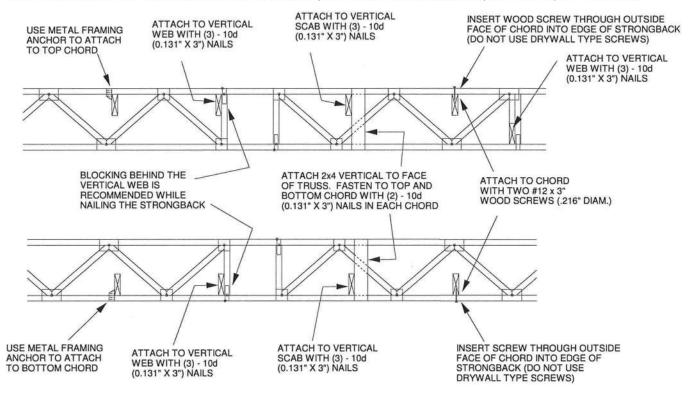
Page 1 of 1

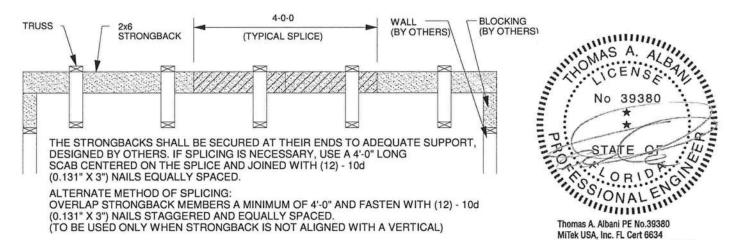


TO MINIMIZE VIBRATION COMMON TO ALL SHALLOW FRAMING SYSTEMS, 2x6 "STRONGBACK" IS RECOMMENDED, LOCATED EVERY 8 TO 10 FEET ALONG A FLOOR TRUSS.

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.





6904 Parke East Blvd. Tampa FL 33610 Date:

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13-06-00

16-00-00

11-02-00

T06G

### CJ01 CJ02 CJ03 CJ03 CJ02 CJ01 CJ01 CJ01 6/12 PITC 7-00-00 EJD1 (8) CJ02 CJ02 CJ03 CJ03 T01 T02 T03 T04 40-08-00 T05 (7) 18" O/H T04 T03 T02 T01 CJ03 7-00-00 CJ02 EJ01(8) CJ01 CJ02 CJ01 CJ01 CJ03 CJ03 CJ02 27-08-00

INDIVIDUAL TRUSS
DRAWING. USE THIS AS AN
DRIENTATION GUIDE
WHEN SETTING THE
FRUSSES ON THE THE ARROW HEAD AT THE END OF THE TRUSS ON THE TRUSS PLACEMENT PLAN (LAYOUT)

CORRESPONDS WITH THE LEFT SIDE OF THE TRUCTURE. eral Notes: 5 3

Per ANSI/IPI 1:2002 all "Truss to Wall" connections are the responsibility of the Building Designer, not the Iruss Manufacturer.

- Use Manufacturer's specifications for all hanger onnections unless noted otherwise.

- Trusses are to be 24" o.c. U.N.O.
- All hangers are to be Simpson or equivalent U.N.O.
- Use IOd x 1 1/2" Nails in hanger connections to single ply girder trusses.

- Trusses are not designed to support brick U.N.O.
- Dimensions are Feet-Inches' Sixteenths

No back charges will be accepted by Builders FirstSource unless approved in writing first, 850-835-4541

6-00-00 T06 (3) 6-00-00 CJ03 CJ02 CJ01 33-08-00

lights, ect..., se type of items.

t is the responsibility of the Contractor to make sure the placement of trusses are adjusted for plumbing drops, can ights, ect..., so the trusses do not interfere with these

It is the responsibility of the Contractor to ensure of the proper crientation of the trues placement plans as to the construction documents and field conditions of the structure orientation. If a reversed or flipped layout is required, it will be supplied at no extra cost by Builders FirstSource.

Refer to BCSI-B1 Summary Sheet-Guide for handling. Installing and Bracing of Metal Plate Connected Wood Truss prior to and during truss installation.

ACQ lumber is corrisive to truss plates. Any ACQ lumb that comes in contact with truss plates (i.e. seabbed on tails) must have an approved barrier applied first.

All common framed roof or floor systems must be designed as to NOT impose any loads on the floor trusses below. The floor trusses have not been designed to carry any additional loads from above.

This truss placement plan was not created by an engineer, but rather by the Builders FirstSource staff and is solely to be used as an installation guide and does not require a seal. Complete truss engineering and analysis can be found on the truss design drawings which may be sealed by the truss design engineer.

Gable end trusses require continuous bottom chord bearing. Refer to local codes for wall framing

27-08-00

Although all attempts have been made to do so, trussess may not be designed symmetrically. Please refer to the individual truss drawings and truss placement plans for proper orientation and placement.

FIRSTSOURCE Builders

Lake City PHONE: 386-755-6894 FAX: 386-755-7973

Jacksonville PHONE: 904-772-6100 FAX: 904-772-1973

PHONE: 850-576-5177 Tallahassee

BEN MARTIN

Spec - Rachel Way

Ploor 1 Job# N/A Custom 10 - 1 - 21KLH
Floor 2 Job#:
N/A 2946692

2946692