

Site Information:

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

RE: 3112302 - NORRIS CONST. - PEELER RES.

MiTek USA, Inc.

16023 Swingley Ridge Rd

Customer Info: JOHN NORRIS CONST. Project Name: Peeler Res. Model: Custom Chesterfield, MO 63017

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

Address: PID 05-6S-16-03773-003, 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 Design Program: MiTek 20/20 8.5

Wind Code: ASCE 7-16 Wind Speed: 130 mph Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 18 individual, Truss Design Drawings and 0 Additional Drawings. With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

| No.         | Seal#     | Truss Name  | Date    | No. | Seal#     | Truss Name | Date    |
|-------------|-----------|-------------|---------|-----|-----------|------------|---------|
| 1           | T28301447 | CJ01        | 7/19/22 | 15  | T28301461 | T06        | 7/19/22 |
| 2<br>3      | T28301448 | CJ03        | 7/19/22 | 16  | T28301462 | T07        | 7/19/22 |
| 3           | T28301449 | CJ05        | 7/19/22 | 17  | T28301463 | T08        | 7/19/22 |
| 4           | T28301450 | EJ01        | 7/19/22 | 18  | T28301464 | T09        | 7/19/22 |
| 4<br>5<br>6 | T28301451 | EJ02        | 7/19/22 |     |           |            |         |
| 6           | T28301452 | HJ10        | 7/19/22 |     |           |            |         |
| 7           | T28301453 | PB01        | 7/19/22 |     |           |            |         |
| 8<br>9      | T28301454 | PB01G       | 7/19/22 |     |           |            |         |
|             | T28301455 | <u>T</u> 01 | 7/19/22 |     |           |            |         |
| 10          | T28301456 | <u>T</u> 02 | 7/19/22 |     |           |            |         |
| 11          | T28301457 | <u>T</u> 03 | 7/19/22 |     |           |            |         |
| 12          | T28301458 | <u>T04</u>  | 7/19/22 |     |           |            |         |
| 13          | T28301459 | T05         | 7/19/22 |     |           |            |         |
| 14          | T28301460 | T05G        | 7/19/22 |     |           |            |         |

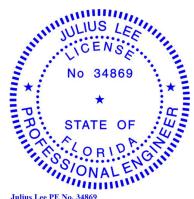
This item has been electronically signed and sealed by Lee, Julius, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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: Lee, Julius

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

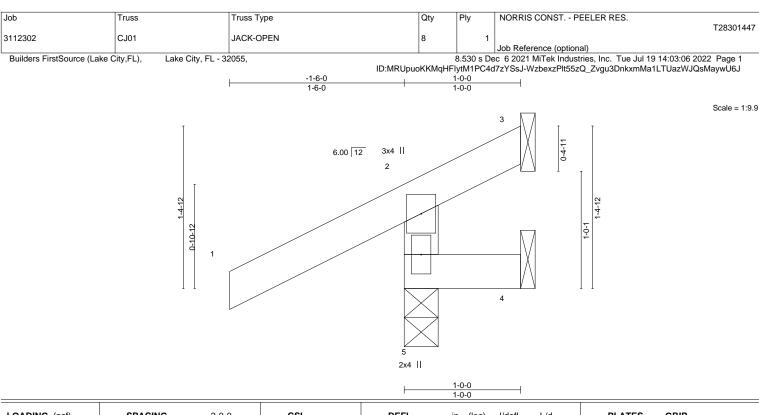
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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.



MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

Lee, Julius

July 20,2022



| LOADIN | G (psf) | SPACING-        | 2-0-0  | CSI.  |      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES       | GRIP     |
|--------|---------|-----------------|--------|-------|------|----------|-------|-------|--------|-----|--------------|----------|
| TCLL   | 20.0    | Plate Grip DOL  | 1.25   | TC    | 0.28 | Vert(LL) | 0.00  | 5     | >999   | 240 | MT20         | 244/190  |
| TCDL   | 7.0     | Lumber DOL      | 1.25   | BC    | 0.04 | Vert(CT) | 0.00  | 5     | >999   | 180 |              |          |
| BCLL   | 0.0 *   | Rep Stress Incr | YES    | WB    | 0.00 | Horz(CT) | -0.00 | 3     | n/a    | n/a |              |          |
| BCDL   | 10.0    | Code FBC2020/TI | PI2014 | Matri | x-MR |          |       |       |        |     | Weight: 6 lb | FT = 20% |

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

2x4 SP No.3 WFBS

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

Max Horz 5=57(LC 12)

Max Uplift 3=-43(LC 1), 5=-97(LC 12), 4=-15(LC 20) Max Grav 3=21(LC 8), 5=207(LC 1), 4=11(LC 3)

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

TOP CHORD 2-5=-177/275

# NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 5, 4.

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Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022





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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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

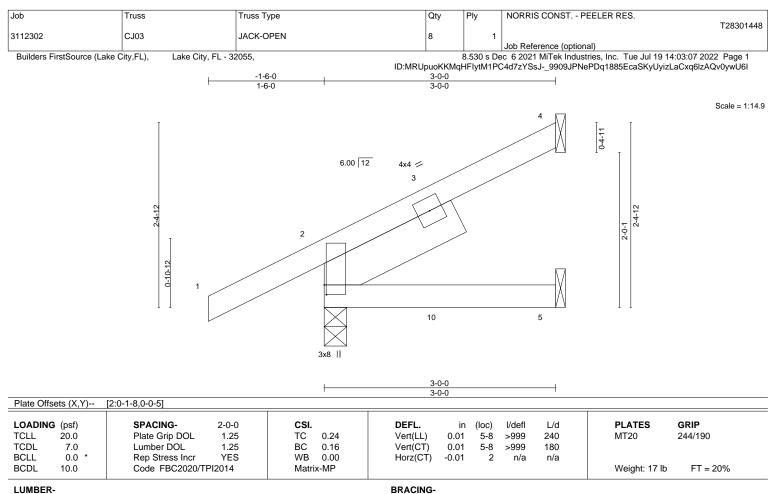


Structural wood sheathing directly applied or 1-0-0 oc purlins,

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

except end verticals

16023 Swingley Ridge Rd



TOP CHORD

**BOT CHORD** 

LUMBER-

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

SLIDER Left 2x6 SP No.2 1-11-8

REACTIONS.

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

Max Horz 2=107(LC 12)

Max Uplift 4=-68(LC 12), 2=-84(LC 12), 5=-30(LC 9) Max Grav 4=59(LC 1), 2=210(LC 1), 5=47(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=22ft; Cat. II; Exp C; Encl. GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-11-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2, 5.

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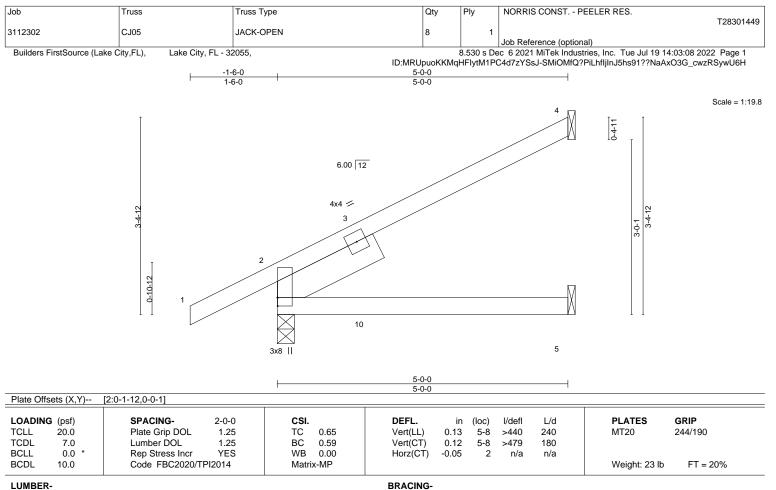
available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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

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

16023 Swingley Ridge Rd



TOP CHORD

**BOT CHORD** 

LUMBER-

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

SLIDER Left 2x6 SP No.2 1-11-8

REACTIONS.

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

Max Horz 2=158(LC 12)

Max Uplift 4=-116(LC 12), 2=-103(LC 12), 5=-52(LC 9) Max Grav 4=113(LC 1), 2=276(LC 1), 5=86(LC 3)

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

TOP CHORD 2-4=-191/454

# NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 4-11-4 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 4=116, 2=103.

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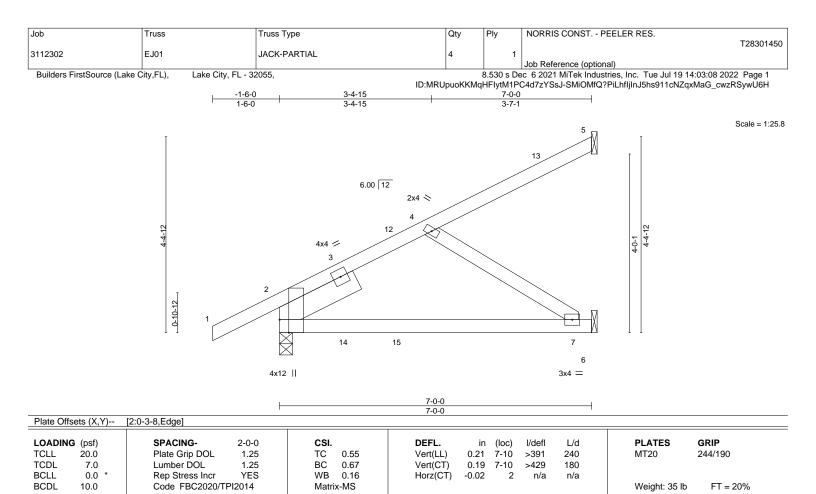
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Structural wood sheathing directly applied or 5-0-0 oc purlins.

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



**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

SLIDER Left 2x6 SP No.2 1-11-8

REACTIONS.

5=Mechanical, 2=0-3-8, 6=Mechanical

Max Horz 2=201(LC 12)

Max Uplift 5=-68(LC 12), 2=-131(LC 9), 6=-136(LC 9) Max Grav 5=80(LC 1), 2=346(LC 1), 6=173(LC 3)

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

TOP CHORD 2-4=-494/1124 **BOT CHORD** 2-7=-450/191 **WEBS** 4-7=-227/536

# NOTES-

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- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5 except (jt=lb) 2=131, 6=136.

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

Rigid ceiling directly applied or 6-4-7 oc bracing.



ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-wYGna\_RdA0TYHRIUL1cwPNZArnv1gomPCGfWzvywU6G

3-4-15

6.00 12 2x4 < 3 <del>1</del>0-1 4x4 / 2 0-10-12 13 14 6 5 4x8 II 3x4

7-0-0

| Plate Off | fsets (X,Y) | [1:0-2-0,0-0-13] |        |       |      |          |       |       |        |     |               |          |
|-----------|-------------|------------------|--------|-------|------|----------|-------|-------|--------|-----|---------------|----------|
| LOADIN    | G (psf)     | SPACING-         | 2-0-0  | CSI.  |      | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
| TCLL      | 20.0        | Plate Grip DOL   | 1.25   | TC    | 0.65 | Vert(LL) | 0.22  | 6-9   | >385   | 240 | MT20          | 244/190  |
| TCDL      | 7.0         | Lumber DOL       | 1.25   | ВС    | 0.68 | Vert(CT) | 0.20  | 6-9   | >424   | 180 |               |          |
| BCLL      | 0.0 *       | Rep Stress Incr  | YES    | WB    | 0.16 | Horz(CT) | -0.02 | 1     | n/a    | n/a |               |          |
| BCDL      | 10.0        | Code FBC2020/T   | PI2014 | Matri | x-MS |          |       |       |        |     | Weight: 33 lb | FT = 20% |

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

SLIDER Left 2x6 SP No.2 1-11-8

REACTIONS.

(size) 1=0-3-8, 4=Mechanical, 5=Mechanical

Max Horz 1=169(LC 12)

Max Uplift 1=-106(LC 9), 4=-66(LC 12), 5=-138(LC 9) Max Grav 1=257(LC 1), 4=78(LC 1), 5=179(LC 1)

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

TOP CHORD 1-3=-527/1253 BOT CHORD 1-6=-462/207 **WEBS** 3-6=-247/549

# NOTES-

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- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4 except (jt=lb) 1=106, 5=138.

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Scale = 1:25.8



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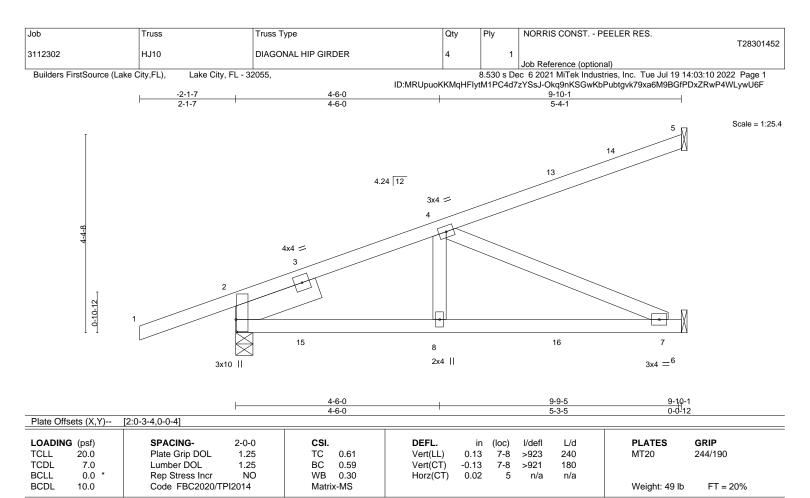
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Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 6-2-6 oc bracing.

16023 Swingley Ridge Rd



**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

SLIDER Left 2x6 SP No.2 1-11-8

REACTIONS.

(size) 5=Mechanical, 2=0-4-9, 6=Mechanical Max Horz 2=219(LC 4) Max Uplift 5=-133(LC 4), 2=-360(LC 4), 6=-260(LC 4) Max Grav 5=154(LC 1), 2=417(LC 1), 6=264(LC 3)

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

TOP CHORD 2-4=-506/402

**BOT CHORD** 2-8=-473/447. 7-8=-473/447

**WEBS** 4-7=-487/516

# NOTES-

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- 5) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 5=133, 2=360, 6=260,
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 58 lb down and 64 lb up at 1-6-1, 58 lb down and 64 lb up at 1-6-1, 6 lb down and 50 lb up at 4-4-0, 6 lb down and 50 lb up at 4-4-0, and 30 lb down and 111 lb up at 7-1-15, and 30 lb down and 111 lb up at 7-1-15 on top chord, and 55 lb up at 1-6-1, 55 lb up at 1-6-1, 33 lb up at 4-4-0, 33 lb up at 4-4-0, and 29 lb down and 64 lb up at 7-1-15, and 29 lb down and 64 lb up at 7-1-15 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

# LOAD CASE(S) Standard

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

Uniform Loads (plf)

Vert: 1-5=-54, 6-9=-20

Vert: 8=3(F=1, B=1) 3=49(F=25, B=25) 13=-61(F=-30, B=-30) 15=70(F=35, B=35) 16=-51(F=-26, B=-26)

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

Rigid ceiling directly applied or 7-10-10 oc bracing.

Job Truss Truss Type Qty Ply NORRIS CONST. - PEELER RES. T28301453 3112302 PB01 29 Piggyback Job Reference (optional) Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:11 2022 Page 1 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-sxOX\_gSuhdkGWlStTReOUoeb5biB8jdiga8d2nywÜ6E 12-1-8 6-0-12 6-0-12 Scale = 1:20.4 4x6 = 3 6.00 12 0-4-3 3x6 = 3x6 = 2x4 || 12-1-8 12-1-8 LOADING (psf) SPACING-2-0-0 CSL DEFL. in (loc) I/defI I/d **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.25 TC 0.34 Vert(LL) 0.01 n/r 120 MT20 244/190 TCDL 7.0 Lumber DOL 1.25 вс 0.25 Vert(CT) 0.02 n/r 120 WB 0.08 **BCLL** 0.0 Rep Stress Incr YES Horz(CT) 0.00 4 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-S Weight: 39 lb FT = 20% LUMBER-BRACING-TOP CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. BOT CHORD 2x4 SP No.2 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. 2x4 SP No.3 **OTHERS** REACTIONS. (size) 2=10-2-6, 4=10-2-6, 6=10-2-6

Max Horz 2=63(LC 12)

Max Uplift 2=-110(LC 12), 4=-122(LC 13), 6=-124(LC 12) Max Grav 2=209(LC 23), 4=209(LC 24), 6=408(LC 1)

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

**WEBS** 3-6=-257/258

# 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-3 to 3-4-3, Interior(1) 3-4-3 to 6-0-12, Exterior(2R) 6-0-12 to 9-0-12, Interior(1) 9-0-12 to 11-9-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate
- 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) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb)
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building

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July 20,2022



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T28301454 3112302 PB01G **GABLE** 2 Job Reference (optional) Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:12 2022 Page 1 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-K7yvC0TWSxs78v13099d0?Bqr\_5ctAwsvEuBaEywU6D 5-4-14 10-9-12 5-4-14 Scale = 1:18.5 4x4 = 6.00 12 2x4 || <sub>5</sub> 2x4 || 3 11 6 10 9 8 2x4 = 2x4 = 2x4 2x4 2x4 || 10-9-12 10-9-12 LOADING (psf) SPACING-2-0-0 CSL **DEFL** in (loc) I/defI I/d **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.25 TC 0.09 Vert(LL) 0.00 6 n/r 120 MT20 244/190 TCDL 7.0 Lumber DOL 1.25 вс 0.04 Vert(CT) 0.00 n/r 120 WB **BCLL** 0.0 Rep Stress Incr YES 0.07 Horz(CT) 0.00 6 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-S Weight: 37 lb FT = 20%LUMBER-BRACING-

Qty

Ply

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

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

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

NORRIS CONST. - PEELER RES.

REACTIONS. All bearings 8-10-10.

Max Horz 2=-55(LC 13)

Max Uplift All uplift 100 lb or less at joint(s) 2, 6 except 10=-129(LC 12), 8=-129(LC 13)

Truss Type

Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9, 10, 8

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

## NOTES-

Job

Truss

- 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-4-3 to 3-4-14, Interior(1) 3-4-14 to 5-4-14, Exterior(2R) 5-4-14 to 8-4-14, Interior(1) 8-4-14 to 10-5-9 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) Gable requires continuous bottom chord bearing.
- 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 100 lb uplift at joint(s) 2, 6 except (jt=lb)
- 10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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July 20,2022



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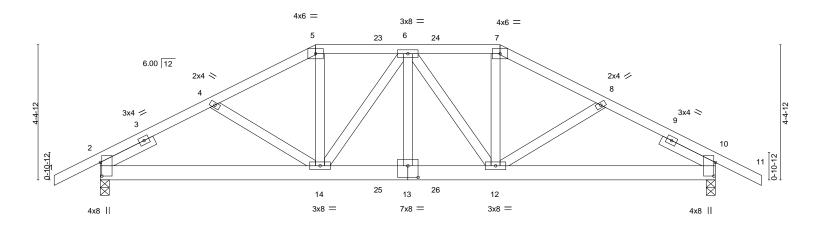
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| Job                          | Truss              | Truss Type      |        | Qty            | Ply        | NORRIS CONST          | PEELER RES.                      |               |
|------------------------------|--------------------|-----------------|--------|----------------|------------|-----------------------|----------------------------------|---------------|
|                              |                    |                 |        |                |            |                       |                                  | T28301455     |
| 3112302                      | T01                | HIP GIRDER      |        | 2              | 1          |                       |                                  |               |
|                              |                    |                 |        |                |            | Job Reference (option | nal)                             |               |
| Builders FirstSource (Lake C | City,FL), Lake Cit | ty, FL - 32055, |        |                | 8.530 s De | ec 6 2021 MiTek Indu  | stries, Inc. Tue Jul 19 14:03:13 | 3 2022 Page 1 |
|                              |                    |                 | I      | D:MRUpuoKKMqHI | TytM1PC4   | d7zYSsJ-oJWHPMU8      | DFI3cFashsZDkt8OFAcbL?7          | 7udk6gywU6C   |
| -1-6-0                       | 3-8-11             | 7-0-0           | 10-0-0 | 13-0-0         | 1          | 16-3-5                | 20-0-0                           | 21-6-0        |
| 1-6-0                        | 3_8_11             | 3-3-5           | 3-0-0  | 3-0-0          |            | 3-3-5                 | 3-8-11                           | 1-6-0         |

Scale = 1:37.5



|                     | 1-0-0                                      | 3-0-0     | 3-0-0               | 1-0-0      |                         |
|---------------------|--|-----------|---------------------|------------|-------------------------|
| Plate Offsets (X,Y) | [2:0-5-5,0-0-9], [10:0-5-5,0-0-9], [13:0-4 | -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 0.63   | Vert(LL) 0.13 12-13 | >999 240   | MT20 244/190            |
| TCDL 7.0            | Lumber DOL 1.25                            | BC 0.73   | Vert(CT) -0.13 13   | >999 180   |                         |
| BCLL 0.0 *          | Rep Stress Incr NO                         | WB 0.25   | Horz(CT) 0.04 10    | n/a n/a    |                         |
| BCDL 10.0           | Code FBC2020/TPI2014                       | Matrix-MS |                     |            | Weight: 131 lb FT = 20% |

**BRACING-**

TOP CHORD

**BOT CHORD** 

13-0-0

10-0-0

LUMBER-

WFBS

TOP CHORD 2x4 SP No 2 **BOT CHORD** 2x6 SP No 2 2x4 SP No 3

SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS.

(size) 2=0-3-8, 10=0-3-8 Max Horz 2=-94(LC 9)

Max Uplift 2=-1013(LC 5), 10=-1035(LC 4) Max Grav 2=1404(LC 1), 10=1427(LC 1)

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

TOP CHORD  $2-4=-2108/1634,\ 4-5=-2059/1670,\ 5-6=-1848/1545,\ 6-7=-1883/1579,\ 7-8=-2101/1711,$ 

8-10=-2148/1673

BOT CHORD  $2\text{-}14\text{=-}1409/1808,\ 13\text{-}14\text{=-}1637/2068,\ 12\text{-}13\text{=-}1637/2068,\ 10\text{-}12\text{=-}1392/1843}$ **WEBS** 5-14=-579/669, 6-14=-426/366, 6-13=-348/386, 6-12=-354/294, 7-12=-509/625

## 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 100 lb uplift at joint(s) except (jt=lb)
- 8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 45 lb down and 68 lb up at 7-0-0, 26 lb down and 68 lb up at 9-0-12, and 26 lb down and 68 lb up at 10-11-4, and 148 lb down and 199 lb up at 13-0-0 on top chord, and 364 lb down and 430 lb up at 7-0-0, 141 lb down and 146 lb up at 9-0-12, and 141 lb down and 146 lb up at 10-11-4, and 364 lb down and 430 lb up at 12-11-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others
- 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

## LOAD CASE(S) Standard

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

Vert: 1-5=-54, 5-7=-54, 7-11=-54, 15-19=-20

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July 20,2022

Continued on page 2

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



Structural wood sheathing directly applied or 3-2-11 oc purlins.

Rigid ceiling directly applied or 5-8-15 oc bracing.

16023 Swingley Ridge Rd

| Job     | Truss | Truss Type | Qty | Ply | NORRIS CONST PEELER RES. |
|---------|-------|------------|-----|-----|--------------------------|
|         |       |            |     |     | T28301455                |
| 3112302 | T01   | HIP GIRDER | 2   | 1   |                          |
|         |       |            |     |     | Job Reference (optional) |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

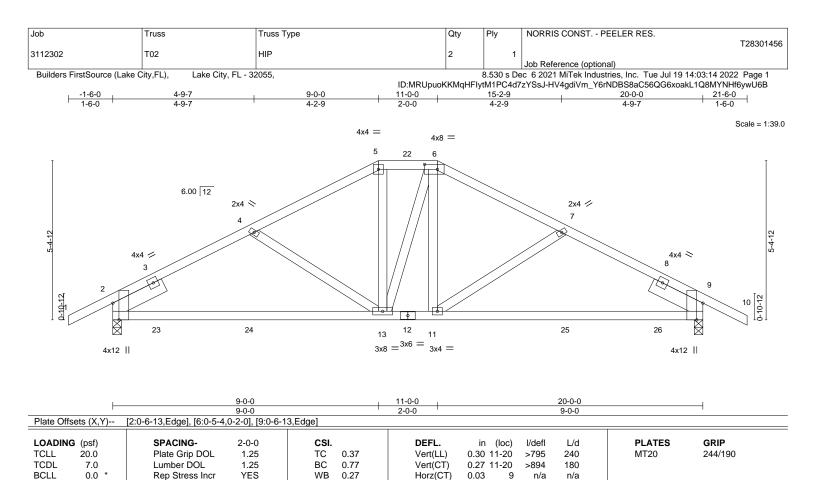
8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:13 2022 Page 2 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-oJWHPMU8DF\_l3cFashsZDkt8OFAcbL?7udk6gywU6C

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 5=-26(F) 7=-101(F) 14=-364(F) 12=-364(F) 23=-26(F) 24=-26(F) 25=-141(F) 26=-141(F)





**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

10.0

BCDL

WFBS

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

SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

REACTIONS.

2=0-3-8, 9=0-3-8 Max Horz 2=115(LC 12) Max Uplift 2=-408(LC 9), 9=-408(LC 8) Max Grav 2=821(LC 1), 9=821(LC 1)

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

Code FBC2020/TPI2014

TOP CHORD 2-4=-1030/1446, 4-5=-862/1344, 5-6=-729/1262, 6-7=-861/1342, 7-9=-1030/1445

BOT CHORD 2-13=-1192/875, 11-13=-1027/728, 9-11=-1210/875

**WEBS** 5-13=-489/236, 6-11=-527/236

# 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=22ft; Cat. II; Exp C; 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(2E) 9-0-0 to 11-0-0, Exterior(2R) 11-0-0 to 15-4-5, Interior(1) 15-4-5 to 21-6-0 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

Matrix-MS

- 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 100 lb uplift at joint(s) except (jt=lb) 2=408, 9=408.

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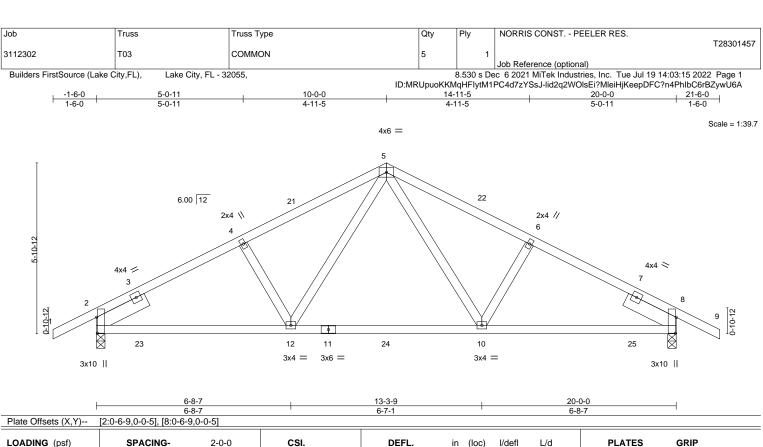
Weight: 114 lb

Structural wood sheathing directly applied or 5-3-0 oc purlins.

Rigid ceiling directly applied or 4-2-5 oc bracing.

FT = 20%

Chesterfield, MO 63017



TCDL 7.0 Lumber DOL 0.0 **BCLL** 

Plate Grip DOL 1.25 TC 0.59 вс 1.25 0.46 WB 0.58 Rep Stress Incr YES Code FBC2020/TPI2014 Matrix-MS

DEFL. in (loc) I/defI L/d Vert(LL) 0.21 10-12 >999 240 Vert(CT) 0.18 10-12 >999 180 Horz(CT) 0.04 8 n/a n/a

**BRACING-**

TOP CHORD

**BOT CHORD** 

**PLATES GRIP** MT20 244/190

Structural wood sheathing directly applied or 4-11-5 oc purlins.

Rigid ceiling directly applied or 4-9-3 oc bracing.

Weight: 106 lb FT = 20%

LUMBER-

**TCLL** 

BCDL

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

20.0

10.0

SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

REACTIONS.

(size) 2=0-3-8, 8=0-3-8 Max Horz 2=-126(LC 13) Max Uplift 2=-379(LC 9), 8=-379(LC 8) Max Grav 2=821(LC 1), 8=821(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 2-4=-1053/1612, 4-5=-960/1623, 5-6=-960/1623, 6-8=-1053/1612

BOT CHORD 2-12=-1290/890, 10-12=-868/655, 8-10=-1311/890

**WEBS** 5-10=-717/331, 5-12=-717/331

# 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 21-6-0 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) 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 100 lb uplift at joint(s) except (jt=lb) 2=379, 8=379.

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July 20,2022

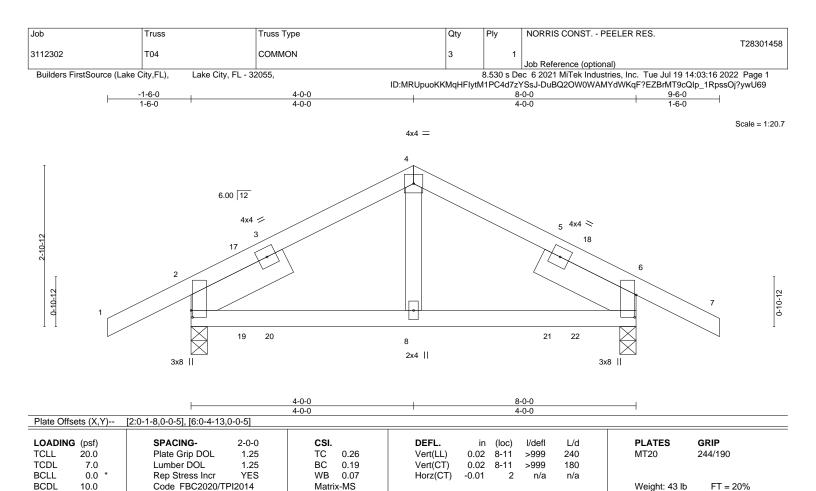


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**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

SLIDER Left 2x6 SP No.2 1-11-8, Right 2x6 SP No.2 1-11-8

REACTIONS.

(size) 2=0-3-8, 6=0-3-8 Max Horz 2=60(LC 12)

Max Uplift 2=-170(LC 12), 6=-170(LC 13) Max Grav 2=377(LC 1), 6=377(LC 1)

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

TOP CHORD 2-4=-248/671, 4-6=-248/671 BOT CHORD 2-8=-428/222, 6-8=-428/222

**WEBS** 4-8=-364/144

# 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=22ft; Cat. II; Exp C; 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 4-0-0, Exterior(2R) 4-0-0 to 7-0-0, Interior(1) 7-0-0 to 9-6-0 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) 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 100 lb uplift at joint(s) except (jt=lb) 2=170, 6=170.

This item has been electronically signed and sealed by Lee, Julius, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022



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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

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



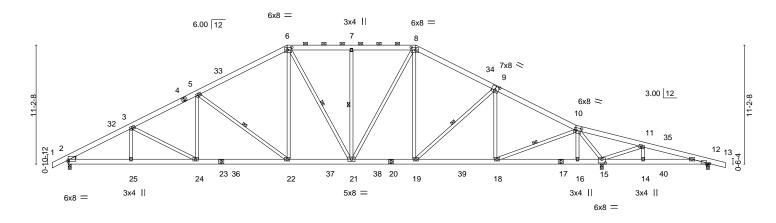
Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 8-8-2 oc bracing.

| Job                          | Truss                      | Truss Type     | Qty | Ply        | NORRIS CONST PEELER RES.   |   |
|------------------------------|----------------------------|----------------|-----|------------|--|---|
| 0440000                      | T05                        | 5 5            | 40  |            | T2830145   | 3 |
| 3112302                      | T05                        | Piggyback Base | 12  | 1          | Job Reference (optional)   |   |
|                              |                            |                |     |            | Job Reference (optional)   |   |
| Builders FirstSource (Lake C | ity,FL), Lake City, FL - 3 | 2055,          |     | 8.530 s De | ec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:18 2022 Page 1 |   |
|                              |                            |                |     |            |  |   |

|        |        |         |        |        | ID:MRUpuoKKN | /lqHFlytM1PC4d7zYS | sJ-9HJAS3YH2ncGs | qUDNQG1GGRmy | /P?IHh3kHAL\ | otywU67/             |
|--------|--------|---------|--------|--------|--------------|--------------------|------------------|--------------|--------------|----------------------|
| -1-6-Q | 5-11-0 | 12-1-12 | 20-7-8 | 26-8-4 | 32-9-0       | 40-3-0             | 47-10-1          | 54-2-0       | 60-5-0       | 61-11 <sub>1</sub> 0 |
| 1-6-0  | 5-11-0 | 6-2-12  | 8-5-12 | 6-0-12 | 6-0-12       | 7-6-0              | 7-7-1            | 6-3-15       | 6-3-0        | 1-6-0                |

Scale = 1:108.5



|              |          | 3-11-0   12-1-12            | 20-7-0            | 20-0-4                       | 32-9-0            | 40-3-0               | 47-10-1        | 130-3-41 34-2-0 1 | 00-3-0   |
|--------------|----------|-----------------------------|-------------------|------------------------------|-------------------|----------------------|----------------|-------------------|----------|
|              |          | 5-11-0 6-2-12               | 8-5-12            | 6-0-12                       | 6-0-12            | 7-6-0                | 7-7-1          | 2-5-3 3-10-12     | 6-3-0    |
| Plate Offset | ts (X,Y) | [2:0-0-0,0-1-13], [6:0-5-4, | 0-3-0], [8:0-5-4, | ,0-3-0], [9:0-4-0,0-4-8], [1 | 10:0-5-12,0-3-0], | [12:0-3-6,Edge], [1: | 5:0-4-0,0-4-4] |                   |          |
| LOADING      | (psf)    | SPACING-                    | 2-0-0             | CSI.                         | DEFL.             | in (loc)             | l/defl L/d     | PLATES            | GRIP     |
| TCLL         | 20.0     | Plate Grip DOL              | 1.25              | TC 0.50                      | Vert(LL)          | -0.19 22-24          | >999 240       | MT20              | 244/190  |
| TCDL         | 7.0      | Lumber DOL                  | 1.25              | BC 0.60                      | Vert(CT)          | -0.34 22-24          | >999 180       |                   |          |
| BCLL         | 0.0 *    | Rep Stress Incr             | YES               | WB 0.93                      | Horz(CT)          | 0.10 15              | n/a n/a        |                   |          |
| BCDL         | 10.0     | Code FBC2020/TI             | PI2014            | Matrix-MS                    |                   |                      |                | Weight: 475 lb    | FT = 20% |

32-0-0

**BRACING-**

TOP CHORD

**BOT CHORD** 

WEBS

10-3-0

47-10-1

2-0-0 oc purlins (4-9-4 max.): 6-8.

1 Row at midpt

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

50-3-4 54-2-0

Structural wood sheathing directly applied or 3-5-1 oc purlins, except

5-22, 6-21, 7-21, 9-19, 10-18

60-5-0

26-8-4

LUMBER-

TOP CHORD 2x6 SP No 2

**BOT CHORD** 2x6 SP No.2 \*Except\* 2-23: 2x6 SP M 26

WFBS 2x4 SP No.3

WEDGE

Left: 2x4 SP No.3

REACTIONS. (size) 2=0-3-8, 15=0-3-8, 12=0-3-8

5-11-0

Max Horz 2=246(LC 16)

Max Uplift 2=-733(LC 12), 15=-970(LC 13), 12=-299(LC 9) Max Grav 2=2082(LC 2), 15=2918(LC 2), 12=189(LC 24)

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

12-1-12

2-3=-3494/1513, 3-5=-3322/1520, 5-6=-2654/1315, 6-7=-2322/1279, 7-8=-2322/1279, TOP CHORD

8-9=-2396/1203, 9-10=-2404/1044, 10-11=-848/1409, 11-12=-182/776 2-25=-1235/3032, 24-25=-1235/3032, 22-24=-1138/2950, 21-22=-731/2300,

**BOT CHORD** 19-21=-596/2071, 18-19=-677/2091, 16-18=-55/580, 15-16=-51/587, 14-15=-682/205,

12-14=-682/205

**WEBS** 5-24=-54/446, 5-22=-836/527, 6-22=-269/813, 6-21=-186/264, 7-21=-354/285,

8-21=-277/608, 8-19=-142/388, 9-19=-160/274, 9-18=-418/375, 10-18=-842/1723,

20-7-8

10-15=-3057/1397. 11-15=-813/1179. 11-14=-387/195

- 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 4-6-8, Interior(1) 4-6-8 to 20-7-8, Exterior(2R) 20-7-8 to 26-8-4, Interior(1) 26-8-4 to 32-9-0, Exterior(2R) 32-9-0 to 38-9-8, Interior(1) 38-9-8 to 61-11-0 zone; porch right exposed; 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) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 4x6 MT20 unless otherwise indicated.
- 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 Corntillufetchetweamette bottom chord and any other members, with BCDL = 10.0psf.

This item has been electronically signed and sealed by Lee, Julius, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022

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ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information

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



| Job     | Truss | Truss Type     | Qty | Ply | NORRIS CONST PEELER RES. |
|---------|-------|----------------|-----|-----|--------------------------|
|         |       |                | 40  |     | T28301459                |
| 3112302 | T05   | Piggyback Base | 12  | 1   |                          |
|         |       |                |     |     | Job Reference (optional) |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:18 2022 Page 2 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-9HJAS3YH2ncGsqUDNQG1GGRmyP?IHh3kHALVotywU67

# NOTES-

- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=733, 15=970, 12=299.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

| Job                          | Truss                       | Truss Type          | Qty      | Ply       | NORRIS CONST PEELER RES.   |  |
|------------------------------|-----------------------------|---------------------|----------|-----------|--|--|
|                              |                             |                     |          |           | T28301460  |  |
| 3112302                      | T05G                        | GABLE               | 2        | 1         |  |  |
|                              |                             |                     |          |           | Job Reference (optional)   |  |
| Builders FirstSource (Lake C | city,FL), Lake City, FL - 3 | 2055,               |          | 3.530 s D | ec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:21 2022 Page 1 |  |
|                              |                             | ID:MRU <sub>I</sub> | ouoKKMqF | IFlytM1P  | C4d7zYSsJ-Zs?J55a9Li_rjHDo2Yqkuv3J0d2EUDsAz8Z9OCywU64            |  |

32-1-2

10-9-12

Scale = 1:113.8

60-5-0

Structural wood sheathing directly applied or 6-0-0 oc purlins, except

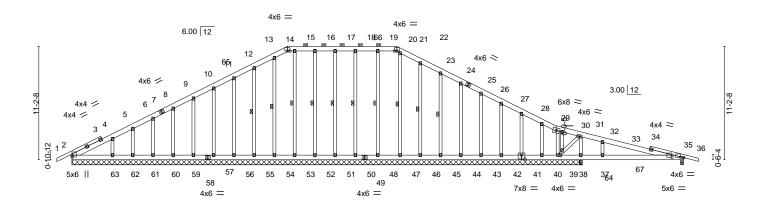
19-48, 23-45, 22-46, 21-47, 12-55, 13-54,

15-53, 16-52, 17-51, 18-50

2-0-0 oc purlins (6-0-0 max.): 14-20.

1 Row at midpt

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



47-10-1

15-8-15

|   |  |  |                                  | 47-10-1<br>47-10-1         |                                  |  |             |                          | 50-5-0 60-<br>2-6-15 10-        | -5-0<br>-0-0                    |
|---|--|--|----------------------------------|----------------------------|----------------------------------|--|-------------|--------------------------|---------------------------------|---------------------------------|
| Plate Offsets (X,Y)   | [35:0-3-4,0-0-4], [35:1-1-1  | 12,0-0-6], [41:0                       | -4-0,0-4-8]                      |                            |                                  |  |             |                          |                                 |                                 |
| LOADING         (psf)           TCLL         20.0           TCDL         7.0           BCLL         0.0           BCDL         10.0 | SPACING-<br>Plate Grip DOL<br>Lumber DOL<br>Rep Stress Incr<br>Code FBC2020/Ti | 2-0-0<br>1.25<br>1.25<br>YES<br>PI2014 | CSI.<br>TC<br>BC<br>WB<br>Matrix | 0.38<br>0.46<br>0.22<br>-S | Vert(LL)<br>Vert(CT)<br>Horz(CT) | in (lo<br>0.18 35-3<br>0.15 35-3<br>0.02 | ,<br>7 >668 | L/d<br>240<br>180<br>n/a | PLATES<br>MT20<br>Weight: 553 I | <b>GRIP</b> 244/190  b FT = 20% |

**BRACING-**

TOP CHORD

**BOT CHORD** 

WEBS

LUMBER-TOP CHORD 2x6 SP No 2 \*Except\*

1-3.34-36: 2x4 SP No.2

**BOT CHORD** 2x6 SP No 2

**WEBS** 2x4 SP No.3

**OTHERS** 2x4 SP No.3

REACTIONS.

All bearings 50-5-0 except (jt=length) 35=0-3-8.

Max Horz 2=241(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 2, 48, 41, 43, 44, 46, 62, 60, 59,

57, 56, 54, 53, 52, 51, 50 except 35=-321(LC 9), 40=-155(LC 13), 42=-101(LC 13), 45=-104(LC 13), 63=-169(LC 12), 61=-100(LC 12), 55=-107(LC 12),

39=-480(LC 1), 38=-811(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 2, 48, 41, 42, 43, 44, 45, 46, 47,

62, 61, 60, 59, 57, 56, 55, 54, 53, 52, 51, 50 except 35=360(LC 1),

40=258(LC 1), 63=252(LC 1), 39=421(LC 9), 38=1056(LC 1), 38=1056(LC 1)

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

TOP CHORD 2-4=-315/124, 11-12=-96/287, 12-13=-120/343, 13-14=-130/364, 14-15=-122/356,

15-16=-122/356, 16-17=-122/356, 17-18=-122/356, 18-19=-122/356, 19-20=-122/356,

20-21=-127/340, 21-22=-128/342, 22-23=-107/272, 32-33=-300/203, 33-35=-290/199 2-63=-90/272. 62-63=-90/272. 61-62=-90/272. 60-61=-90/272. 59-60=-90/272.

57-59=-90/272, 56-57=-90/272, 55-56=-90/272, 54-55=-90/272, 53-54=-90/272,

52-53=-90/272, 51-52=-90/272, 50-51=-90/272, 48-50=-90/272, 47-48=-90/272,

46-47=-90/272, 45-46=-90/272, 44-45=-90/272, 43-44=-90/272, 42-43=-90/272,

41-42=-90/272, 40-41=-90/272, 39-40=-90/272, 38-39=-154/323, 37-38=-154/323,

35-37=-154/323

**WEBS** 32-38=-566/739

# NOTES-

**BOT CHORD** 

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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 4-6-8, Exterior(2N) 4-6-8 to 21-3-6, Corner(3R) 21-3-6 to 27-3-14, Exterior(2N) 27-3-14 to 32-1-2, Corner(3R) 32-1-2 to 38-5-0, Exterior(2N) 38-5-0 to 61-11-0 zone; porch 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.

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Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022

Continued on page 2

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

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|   | Job     | Truss | Truss Type | Qty | Ply | NORRIS CONST PEELER RES. |
|---|---------|-------|------------|-----|-----|--------------------------|
|   |         |       |            |     |     | T28301460                |
|   | 3112302 | T05G  | GABLE      | 2   | 1   |                          |
| L |         |       |            |     |     | Job Reference (optional) |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:21 2022 Page 2 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-Zs?J55a9Li\_rjHDo2Yqkuv3J0d2EUDsAz8Z9OCywU64

### NOTES-

- 5) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.
- 6) Provide adequate drainage to prevent water ponding.
- 7) All plates are 3x4 MT20 unless otherwise indicated.
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) \* 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.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 48, 41, 43, 44, 46, 62, 60, 59, 57, 56, 54, 53, 52, 51, 50 except (jt=lb) 35=321, 40=155, 42=101, 45=104, 63=169, 61=100, 55=107, 39=480, 38=811.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORRIS CONST. - PEELER RES. Job Truss Truss Type Qty Ply T28301461 3112302 T06 Piggyback Base 2 Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

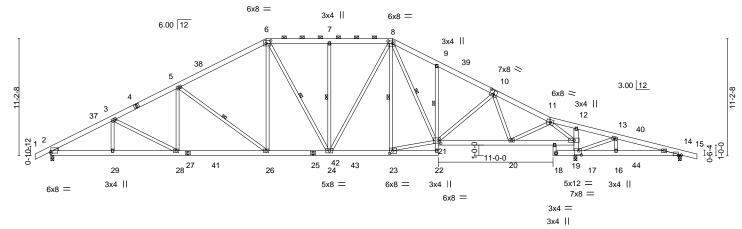
8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:23 2022 Page 1 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-WE63WncQtJEZybNAAzsCzK8ddQhsy\_7TRS2GT5ywU62 47-10-1 5-5-1 50-1-8 54-2-0 2-3-7 4-0-8

Structural wood sheathing directly applied or 3-4-13 oc purlins,

5-26, 6-24, 7-24, 8-23, 8-21

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

Scale = 1:110.4



| 1                   | 5-11-0    | 12-1-12            | 1 20-7-8                  | 26-8-4            | 1 32-9-0 <sub>1</sub> | 37-1-8        | 44-0-0              | <sub>1</sub> 50-1-8 | 50 <sub>7</sub> 3-4 54-2-0  | l 60-5-0 | 1 |
|---------------------|-----------|--------------------|---------------------------|-------------------|-----------------------|---------------|---------------------|---------------------|-----------------------------|----------|---|
|                     | 5-11-0    | 6-2-12             | 8-5-12                    | 6-0-12            | 6-0-12                | 4-4-8         | 6-10-8              | 6-1-8               | 0-1 <sup><u>  </u></sup> 12 | 6-3-0    | I |
|                     |           |                    |                           |                   |                       |               |                     |                     | 3-10-12                     |          |   |
| Plate Offsets (X,Y) | [2:0-0-0, | 0-1-13], [6:0-5-4, | ,0-3-0], [8:0-5-4,0-2-12] | , [10:0-4-0,0-4-8 | ], [14:0-3-6,Edge     | e], [17:0-3-0 | 0,0-4-12], [21:0-2- | 12,0-3-4], [23      | 3:0-3-8,0-3-01              |          |   |

**BOT CHORD** 

WEBS

except

1 Row at midpt

1 Row at midpt

3-9-0 oc bracing: 17-19

2-0-0 oc purlins (4-8-10 max.): 6-8.

| - 10110 011 | , . ,   |                      | .,. = .=,, [,,, | [: :: = = :=; = : :=]; [= :: = : :=]; [= :: = : :=]; [= :: = : :=]; [= :: = : :=]; [= :: = :: : |                         |
|-------------|---------|----------------------|-----------------|---|-------------------------|
| LOADIN      | G (psf) | SPACING- 2-0-0       | CSI.            | DEFL. in (loc) I/defl L/d   | PLATES GRIP             |
| TCLL        | 20.0    | Plate Grip DOL 1.25  | TC 0.50         | Vert(LL) -0.21 26-28 >999 240   | MT20 244/190            |
| TCDL        | 7.0     | Lumber DOL 1.25      | BC 0.64         | Vert(CT) -0.36 26-28 >999 180   |                         |
| BCLL        | 0.0 *   | Rep Stress Incr YES  | WB 0.81         | Horz(CT) 0.11 17 n/a n/a  |                         |
| BCDL        | 10.0    | Code FBC2020/TPI2014 | Matrix-MS       |   | Weight: 501 lb FT = 20% |

LUMBER-**BRACING-**TOP CHORD 2x6 SP No 2 TOP CHORD

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

2-27: 2x6 SP M 26, 9-22: 2x4 SP No.3

WFBS

2x4 SP No.3 WEDGE

Left: 2x4 SP No.3

REACTIONS.

(size) 2=0-3-8, 17=0-3-8, 14=0-3-8

Max Horz 2=246(LC 16)

Max Uplift 2=-740(LC 12), 17=-901(LC 13), 14=-351(LC 9) Max Grav 2=2097(LC 2), 17=2818(LC 2), 14=263(LC 24)

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

2-3=-3522/1556, 3-5=-3353/1568, 5-6=-2685/1364, 6-7=-2359/1335, 7-8=-2359/1335, TOP CHORD

8-9=-2787/1529, 9-10=-2815/1382, 10-11=-2584/1139, 11-12=-668/1286, 12-13=-435/980,

13-14=-69/574

**BOT CHORD** 2-29=-1273/3057, 28-29=-1273/3057, 26-28=-1181/2978, 24-26=-775/2328,

23-24=-664/2111, 9-21=-246/304, 20-21=-898/2422, 19-20=-350/1180, 17-19=-2484/1162,

12-19=-255/157, 16-17=-482/98, 14-16=-482/98

**WEBS** 5-28=-53/446, 5-26=-836/526, 6-26=-270/812, 6-24=-196/286, 7-24=-361/289,

8-24=-260/605, 8-23=-286/168, 21-23=-614/2042, 8-21=-484/854, 10-20=-458/341, 11-20=-511/1283, 11-19=-3241/1537, 13-17=-734/1092, 13-16=-475/299

## 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 4-6-8, Interior(1) 4-6-8 to 20-7-8, Exterior(2R) 20-7-8 to 26-8-4, Interior(1) 26-8-4 to 32-9-0, Exterior(2R) 32-9-0 to 38-9-8, Interior(1) 38-9-8 to 61-11-0 zone; porch right exposed; 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) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 4x6 MT20 unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

This item has been electronically signed and sealed by Lee, Julius, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022

Continued on page 2

MANING - 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 chorembers 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

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



| Job     | Truss | Truss Type     | Qty | Ply | NORRIS CONST PEELER RES. |
|---------|-------|----------------|-----|-----|--------------------------|
|         |       |                |     |     | T28301461                |
| 3112302 | T06   | Piggyback Base | 2   | 1   |                          |
|         |       |                |     |     | Job Reference (optional) |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:23 2022 Page 2 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-WE63WncQtJEZybNAAzsCzK8ddQhsy\_7TRS2GT5ywU62

# NOTES-

- 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, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=740, 17=901, 14=351.

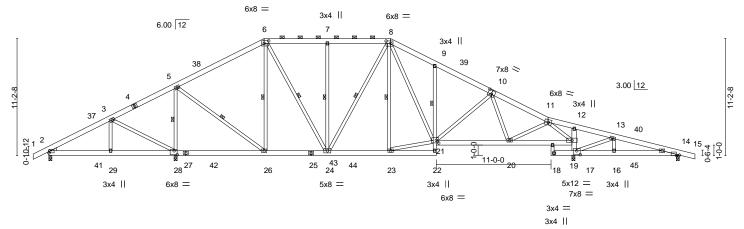
  10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job Truss Truss Type Qty Ply NORRIS CONST. - PEELER RES. T28301462 3112302 T07 Piggyback Base 3 Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:25 2022 Page 1 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-SdEqwTdgOxUHCvWZHOug2IE\_fEQoQsRmumXNXzywU60 50-1-8 54-2-0 2-3-7 4-0-8

Scale = 1:110.4



|     |        |         |        |        |        |        |        |        | 50-3                             | 3-4     |        |   |
|-----|--------|---------|--------|--------|--------|--------|--------|--------|----------------------------------|---------|--------|---|
| - 1 | 5-11-0 | 12-1-12 | 20-7-8 | 26-8-4 | 32-9-0 | 37-1-8 | 44-0-0 | 48-1-8 | <sub>1</sub> 50-1-8 <sub>1</sub> | 54-2-0  | 60-5-0 | 1 |
| Г   | 5-11-0 | 6-2-12  | 8-5-12 | 6-0-12 | 6-0-12 | 4-4-8  | 6-10-8 | 4-1-8  | 2-0-0                            | 3-10-12 | 6-3-0  | _ |
|     |        |         |        |        |        |        |        |        | 0-1-                             | -12     |        |   |

| LOADING | (psf) | SPACING-         | 2-0-0 | CSI.   |      | DEFL.    | in (le    | oc) | l/defl | L/d | PLATES         | GRIP     |
|---------|-------|------------------|-------|--------|------|----------|-----------|-----|--------|-----|----------------|----------|
| TCLL    | 20.0  | Plate Grip DOL   | 1.25  | TC     | 0.34 | Vert(LL) | -0.09 20- | 21  | >999   | 240 | MT20           | 244/190  |
| TCDL    | 7.0   | Lumber DOL       | 1.25  | ВС     | 0.42 | Vert(CT) | -0.16 20- | 21  | >999   | 180 |                |          |
| BCLL    | 0.0 * | Rep Stress Incr  | YES   | WB     | 0.95 | Horz(CT) | 0.04      | 14  | n/a    | n/a |                |          |
| BCDL    | 10.0  | Code FBC2020/TPI | 2014  | Matrix | c-MS |          |           |     |        |     | Weight: 501 lb | FT = 20% |

LUMBER-TOP CHORD 2x6 SP No 2

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

9-22: 2x4 SP No.3 2x4 SP No.3

WFBS

WEDGE

Left: 2x4 SP No.3

**BRACING-**TOP CHORD BOT CHORD

WEBS

Structural wood sheathing directly applied or 5-3-9 oc purlins, except

2-0-0 oc purlins (6-0-0 max.): 6-8. Rigid ceiling directly applied or 6-0-0 oc bracing. Except:

1 Row at midpt

4-11-0 oc bracing: 17-19

1 Row at midpt 5-28, 5-26, 6-26, 6-24, 7-24, 8-24, 8-23

REACTIONS. All bearings 0-3-8.

Max Horz 2=246(LC 16) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) except 2=-231(LC 9), 17=-773(LC 13),

Plate Offsets (X,Y)-- [6:0-5-4.0-3-0], [8:0-5-4.0-2-12], [10:0-4-0.0-4-8], [14:0-3-6, Edgel, [17:0-4-0.0-4-8], [21:0-2-12.0-3-0], [28:0-3-8.0-4-8]

14=-370(LC 9), 28=-734(LC 12)

Max Grav All reactions 250 lb or less at joint(s) except 2=452(LC 23), 17=2175(LC 2), 14=317(LC 24), 28=2240(LC 2)

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

TOP CHORD 2-3=-401/622, 3-5=-118/325, 5-6=-1070/595, 6-7=-1212/790, 7-8=-1212/790,

8-9=-1825/1071, 9-10=-1851/923, 10-11=-1867/794, 11-12=-457/807, 12-13=-280/630,

13-14=-120/718

**BOT CHORD** 2-29=-436/359, 28-29=-436/359, 26-28=-173/357, 24-26=-83/907, 23-24=-265/1277,

9-21=-248/305, 20-21=-552/1701, 19-20=-256/931, 17-19=-1817/851, 16-17=-622/100,

14-16=-622/100

WEBS 3-29=-509/222, 3-28=-469/870, 5-28=-1680/962, 5-26=-504/1308, 6-26=-532/376,

6-24=-375/743, 7-24=-365/290, 21-23=-233/1248, 8-21=-455/796, 11-20=-302/827,

11-19=-2283/1090, 13-17=-711/1082, 13-16=-456/257

## 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 4-6-8, Interior(1) 4-6-8 to 20-7-8, Exterior(2R) 20-7-8 to 26-8-4, Interior(1) 26-8-4 to 32-9-0, Exterior(2R) 32-9-0 to 38-9-8, Interior(1) 38-9-8 to 61-11-0 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) 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) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or
- 5) Provide adequate drainage to prevent water ponding.

(6) nAih platem grages MT20 unless otherwise indicated.

This item has been electronically signed and sealed by Lee, Julius, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022

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

MARNING - Verity design parameters and READ NOTES ON THIS AND INCLUDED MITER REFERENCE PAGE MIT-74.7 (ev. 5.019/2020 BEPURE USE.

Design valid for use only with MITER® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-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 | NORRIS CONST PEELER RES. |
|---------|-------|----------------|-----|-----|--------------------------|
|         |       |                |     |     | T28301462                |
| 3112302 | T07   | Piggyback Base | 3   | 1   |                          |
|         |       |                |     |     | Job Reference (optional) |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:25 2022 Page 2 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-SdEqwTdgOxUHCvWZHOug2lE\_fEQoQsRmumXNXzywÜ60

### NOTES-

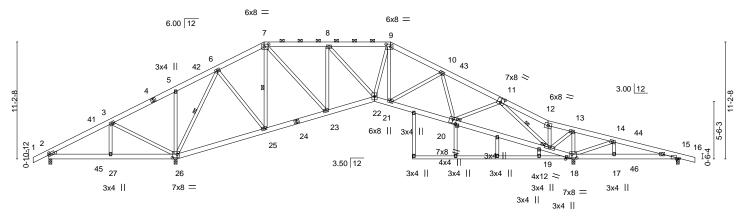
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 231 lb uplift at joint 2, 773 lb uplift at joint 17, 370 lb uplift at joint 14 and 734 lb uplift at joint 28.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

Job Truss Truss Type Qty Ply NORRIS CONST. - PEELER RES. T28301463 3112302 T08 PIGGYBACK BASE Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:27 2022 Page 1 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-O0MaL8fwwYI?RCgxPpx87AJKF16Vunw3L40TcsywU6\_ 47-10-1 50-1-8 54-2-0 4-7-1 2-3-7 4-0-8

Scale = 1:110.4



|        |         |                      |        |        |        | 34-10-0     |         |         | 50-1-8  |        |
|--------|---------|----------------------|--------|--------|--------|-------------|---------|---------|---|--------|
| 5-11-0 | 12-1-12 | 12-3-8               | 20-7-8 | 26-8-4 | 31-2-8 | 32-9-Q      | 38-10-0 | 46-10-0 | 47 <sub>1</sub> -10 <sub>1</sub> 1 50 <sub>1</sub> 3-4 54-2-0 | 60-5-0 |
| 5-11-0 | 6-2-12  | 0-1 <sup>ll</sup> 12 | 8-4-0  | 6-0-12 | 4-6-4  | 1-6-8 2-1-0 | 4-0-0   | 8-0-0   | 1-0-1 2-3-7    3-10-12  | 6-3-0  |
|        |         |                      |        |        |        |             |         |         | 0-1-12  |        |

| Plate Offsets (X,Y) | 0-2-0], [20:0-4-0,0-4-8], [26:0-5-8,0-4-0] |           |                        |                         |
|---------------------|--|-----------|------------------------|-------------------------|
| 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 0.33   | Vert(LL) -0.10 22 >999 | 240 MT20 244/190        |
| TCDL 7.0            | Lumber DOL 1.25                            | BC 0.40   | Vert(CT) -0.19 22 >999 | 180                     |
| BCLL 0.0 *          | Rep Stress Incr YES                        | WB 0.82   | Horz(CT) 0.14 18 n/a   | n/a                     |
| BCDL 10.0           | Code FBC2020/TPI2014                       | Matrix-MS |                        | Weight: 498 lb FT = 20% |

LUMBER-TOP CHORD 2x6 SP No 2

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

18-28: 2x4 SP No.2

WFBS 2x4 SP No.3 WEDGE

Left: 2x4 SP No.3

**BRACING-**TOP CHORD

**BOT CHORD** 

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

except

2-0-0 oc purlins (5-8-9 max.): 7-9.

Rigid ceiling directly applied or 6-0-0 oc bracing. 1 Row at midpt 6-26, 7-25, 11-19

1 Brace at Jt(s): 20, 19

WEBS **JOINTS** 

REACTIONS. All bearings 0-3-8.

(lb) -Max Horz 2=246(LC 16)

Max Uplift All uplift 100 lb or less at joint(s) except 2=-207(LC 24), 26=-833(LC 12),

18=-845(LC 13), 15=-316(LC 9)

Max Grav All reactions 250 lb or less at joint(s) 2, 15 except 26=2419(LC 1),

18=2048(LC 1)

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

TOP CHORD 2-3=-63/617, 3-5=-470/1074, 5-6=-327/1040, 6-7=-569/384, 7-8=-1153/661

8-9=-1587/744, 9-10=-1743/774, 10-11=-1821/784, 11-12=-276/324, 12-13=-320/274,

13-14=-788/1353, 14-15=-116/713

**BOT CHORD** 2-27=-523/293, 26-27=-523/293, 25-26=-202/401, 23-25=0/572, 22-23=-147/1208,

21-22=-199/1559, 20-21=-409/1696, 19-20=-307/1157, 18-19=-1420/966, 17-18=-624/155,

15-17=-624/155

WEBS 3-27=-542/284, 3-26=-583/971, 5-26=-306/287, 6-26=-1825/804, 6-25=-317/997,

7-25=-801/371, 7-23=-412/1043, 8-23=-872/409, 8-22=-134/666, 9-22=-96/361,

 $10\text{-}21\text{=-}198/330,\ 11\text{-}20\text{=-}130/528,\ 11\text{-}19\text{=-}1917/997,\ 13\text{-}19\text{=-}595/1475,\ 13\text{-}18\text{=-}1368/613,}$ 

14-18=-750/1163, 14-17=-430/237

## 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 4-6-8, Interior(1) 4-6-8 to 20-7-8, Exterior(2R) 20-7-8 to 26-8-4, Interior(1) 26-8-4 to 32-9-0, Exterior(2R) 32-9-0 to 38-9-8, Interior(1) 38-9-8 to 61-11-0 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) 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) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or bracing.

This item has been electronically signed and sealed by Lee, Julius, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022

(5) ritirovideoadeauate drainage to prevent water ponding.

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL-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 chorembers 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



| Job     | Truss | Truss Type     | Qty | Ply | NORRIS CONST PEELER RES. |
|---------|-------|----------------|-----|-----|--------------------------|
|         |       |                |     |     | T28301463                |
| 3112302 | T08   | PIGGYBACK BASE | 1   | 1   |                          |
|         |       |                |     |     | Job Reference (optional) |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:27 2022 Page 2 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-O0MaL8fwwYI?RCgxPpx87AJKF16Vunw3L40TcsywU6\_

### NOTES-

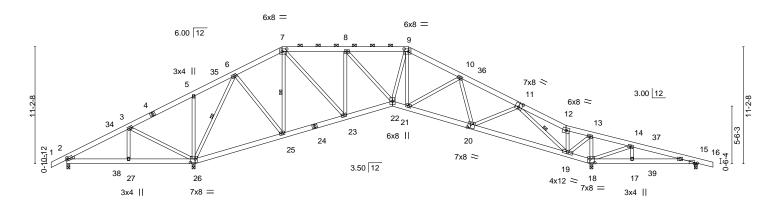
- 6) All plates are 4x6 MT20 unless otherwise indicated.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 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 207 lb uplift at joint 2, 833 lb uplift at joint 26, 845 lb uplift at joint 18 and 316 lb uplift at joint 15.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

NORRIS CONST. - PEELER RES. Job Truss Truss Type Qty Plv T28301464 3112302 T09 PIGGYBACK BASE 11 Job Reference (optional)

Builders FirstSource (Lake City,FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:29 2022 Page 1 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-LOULmqgAS9?igWqKWDzcDbOglrpYMhnMpOVZglywU5y 47-10-1 50-1-8 54-2-0 4-7-1 2-3-7 4-0-8

Scale = 1:110.4



|     |        |         |                      |        |        |        |                    |         |         | 50-                              | 3-4     |        |        |
|-----|--------|---------|----------------------|--------|--------|--------|--------------------|---------|---------|----------------------------------|---------|--------|--------|
| - 1 | 5-11-0 | 12-1-12 | 12-3-8               | 20-7-8 | 26-8-4 | 31-2-8 | 32-9-0             | 38-10-0 | 47-10-1 | <sub>1</sub> 50-1-8 <sub>1</sub> | 54-2-0  | 60-5-0 | 1      |
| Г   | 5-11-0 | 6-2-12  | 0-1 <sup>ll</sup> 12 | 8-4-0  | 6-0-12 | 4-6-4  | 1-6-8 <sup>1</sup> | 6-1-0   | 9-0-1   | 2-3-7                            | 3-10-12 | 6-3-0  | $\neg$ |
|     |        |         |                      |        |        |        |                    |         |         | 0-1-                             | -12     |        |        |

| Plate Off | sets (X,Y) | [2:0-1-0,0-2-0], [7:0-5-4,0 | -3-0], [9:0-5-4, | ,0-3-0 <u>]</u> , [11:0- | ·4-0,0-4-8 <u>],</u> [ | 15:0-3-6,EdgeJ, [18 | 3:0-5-8,0 | )-4-4], [2 | 20:0-3-4, | 0-4-8], [26:0 | -5-8,0-4-0]    |          |  |
|-----------|------------|-----------------------------|------------------|--------------------------|------------------------|---------------------|-----------|------------|-----------|---------------|----------------|----------|--|
| LOADING   | G (psf)    | SPACING-                    | 2-0-0            | CSI.                     |                        | DEFL.               | in        | (loc)      | l/defl    | L/d           | PLATES         | GRIP     |  |
| TCLL      | 20.0       | Plate Grip DOL              | 1.25             | TC                       | 0.33                   | Vert(LL)            | -0.10     | 22         | >999      | 240           | MT20           | 244/190  |  |
| TCDL      | 7.0        | Lumber DOL                  | 1.25             | BC                       | 0.37                   | Vert(CT)            | -0.19     | 22         | >999      | 180           |                |          |  |
| BCLL      | 0.0 *      | Rep Stress Incr             | YES              | WB                       | 0.80                   | Horz(CT)            | 0.14      | 18         | n/a       | n/a           |                |          |  |
| BCDL      | 10.0       | Code FBC2020/T              | PI2014           | Matri                    | x-MS                   |                     |           |            |           |               | Weight: 461 lb | FT = 20% |  |

LUMBER-TOP CHORD 2x6 SP No 2

**BOT CHORD** 2x6 SP No 2 2x4 SP No 3 WFBS

WEDGE

Left: 2x4 SP No.3

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 5-3-15 oc purlins,

except

2-0-0 oc purlins (5-8-9 max.): 7-9.

**BOT CHORD** Rigid ceiling directly applied or 6-0-0 oc bracing. WEBS 6-26, 7-25, 11-19 1 Row at midpt

REACTIONS. All bearings 0-3-8.

Max Horz 2=246(LC 16) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) except 2=-210(LC 24), 26=-833(LC 12), 18=-845(LC 13), 15=-316(LC

Max Grav All reactions 250 lb or less at joint(s) 2, 15 except 26=2423(LC 1), 18=2046(LC 1)

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

2-3=-63/621, 3-5=-472/1080, 5-6=-331/1044, 6-7=-568/381, 7-8=-1150/660, TOP CHORD

8-9=-1584/744, 9-10=-1741/774, 10-11=-1820/784, 11-12=-276/322, 12-13=-320/273,

13-14=-787/1351, 14-15=-116/711

**BOT CHORD** 2-27=-527/293, 26-27=-527/293, 25-26=-228/412, 23-25=0/569, 22-23=-147/1205,

21-22=-199/1557, 20-21=-409/1694, 19-20=-307/1157, 18-19=-1418/965, 17-18=-623/155,

15-17=-623/155

**WEBS** 3-27=-542/284, 3-26=-584/972, 5-26=-302/281, 6-26=-1815/804, 6-25=-324/1011,

7-25=-807/375, 7-23=-412/1043, 8-23=-873/408, 8-22=-134/666, 9-22=-96/359,

10-21=-198/330, 11-20=-130/526, 11-19=-1915/996, 13-19=-595/1473, 13-18=-1367/613,

14-18=-750/1163, 14-17=-430/237

# 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=22ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 4-6-8, Interior(1) 4-6-8 to 20-7-8, Exterior(2R) 20-7-8 to 26-8-4, Interior(1) 26-8-4 to 32-9-0, Exterior(2R) 32-9-0 to 38-9-8, Interior(1) 38-9-8 to 61-11-0 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) 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) WARNING: This long span truss requires extreme care and experience for proper and safe handling and erection. For general handling and erection guidance, see Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses ("BCSI"), jointly produced by SBCA and TPI. The building owner or the owner's authorized agent shall contract with a qualified registered design professional for the design and inspection of the temporary installation restraint/bracing and the permanent individual truss member restraint/bracing. MiTek assumes no responsibility for truss manufacture, handling, erection, or
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are 4x6 MT20 unless otherwise indicated.

TonThisdruss bage gen designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

This item has been electronically signed and sealed by Lee, Julius, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

Julius Lee PE No.34869 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017

July 20,2022

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chorembers only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

\*\*ANSI/TPI 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 | NORRIS CONST PEELER RES. |
|---------|-------|----------------|-----|-----|--------------------------|
|         |       |                |     |     | T28301464                |
| 3112302 | T09   | PIGGYBACK BASE | 11  | 1   |                          |
|         |       |                |     |     | Job Reference (optional) |

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Tue Jul 19 14:03:29 2022 Page 2 ID:MRUpuoKKMqHFlytM1PC4d7zYSsJ-LOULmqgAS9?igWqKWDzcDbOglrpYMhnMpOVZglywÜ5y

# NOTES-

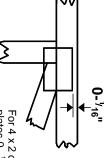
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 210 lb uplift at joint 2, 833 lb uplift at joint 26, 845 lb uplift at joint 18 and 316 lb uplift at joint 15.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

# Symbols

# PLATE LOCATION AND ORIENTATION



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



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

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

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

# PLATE SIZE

4 × 4

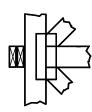
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

# LATERAL BRACING LOCATION



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

# **BEARING**



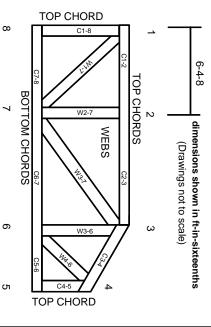
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

# Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: 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

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

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

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

# **General Safety Notes**

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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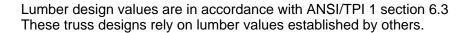
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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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 responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
- 15. Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- 20. 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.





RE: 2718981 - DETAILS

MiTek USA, Inc. 6904 Parke East Blvd. Tampa, FL 33610-4115

Site Information:

Customer Info: DETAILS Project Name: N/A Model: N/A Lot/Block: N/A Subdivision: N/A

Address: N/A, N/A

City: N/A State: N/A

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 Design Program: MiTek 20/20 8.4

Wind Code: ASCE 7-16 Wind Speed: 130 mph Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 20 individual, General Truss Details 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#                  | Detail Name                     | Date             | No.      | Seal#                  | Detail Name                     | Date             |
|----------|------------------------|---------------------------------|------------------|----------|------------------------|---------------------------------|------------------|
| 1        | T23399806              | MII-REP10                       | 4/2/21           | 15       | T23399820              | MII-VALLEY HIGH WIND2           | ., _,            |
| 2        | T23399807<br>T23399808 | MII-T-BRACE 2<br>MII-SCAB-BRACE | 4/2/21<br>4/2/21 | 16<br>17 | T23399821<br>T23399822 | MII-VALLEY SP<br>MII-VALLEY SP  | 4/2/21<br>4/2/21 |
| 4        | T23399809              | MII-REP05                       | 4/2/21           | 18       | T23399823              | MII-VALLE 1 31<br>MII-GE146-001 | 4/2/21           |
| 5        | T23399810              | MII-GE130-D-SP                  | 4/2/21           | 19       | T23399824              | MII-REP13B                      | 4/2/21           |
| 6        | T23399811              | MII-GE130-SP                    | 4/2/21           | 20       | T23399825              | MII-STRGBCK                     | 4/2/21           |
| 8        | T23399812<br>T23399813 | MII-GE140-001<br>MII-GE170-D-SP | 4/2/21<br>4/2/21 |          |                        |                                 |                  |
| 9        | T23399814              | MII-GE180-D-SP                  | 4/2/21           |          |                        |                                 |                  |
| 10       | T23399815              | MII-GE180-D-SP                  | 4/2/21           |          |                        |                                 |                  |
| 11       | T23399816              | MII-PIGGY-ALT-7-16              | 4/2/21           |          |                        |                                 |                  |
| 12<br>13 | T23399817<br>T23399818 | MII-REP01A1<br>MII-TOENAIL SP   | 4/2/21<br>4/2/21 |          |                        |                                 |                  |
| 14       | T23399819              | MII-VALLEY HIGH WIND1           |                  |          |                        |                                 |                  |

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies

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

Truss Design Engineer's Name: 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.



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



RE: \$JOBNAME - \$JOBDESC

MiTek USA, Inc. 6904 Parke East Blvd. Tampa, FL 33610-4115

# **Site Information:**

Customer Info: \$SI\_CUSTOMER Project Name: \$SI\_JOBNAME Model: \$SI\_MODEL Lot/Block: \$SI\_LOTNUM Subdivision: \$SI\_SUBDIV Address: \$SI\_SITEADDR

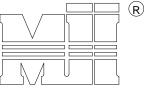
City: \$SI\_SITECITY State: \$SI\_SITESTATE OCTOBER 28, 2016

# STANDARD REPAIR FOR ADDING A FALSE BOTTOM CHORD

MII-REP10 T23399806

MiTek USA, Inc.

Page 1 of 1



MAIN TRUSS MANUFACTURED WITHOUT FALSE BOTTOM CHORD.

MAIN TRUSS (SPACING = 24" O.C.)

MiTek USA, Inc. REFER TO THE BOTTOM CHORD BRACING SECTION OF THE INDIVIDUAL TRUSS DESIGN FOR MAXIMUM SPACING OF CONTINUOUS LATERAL BRACING WHENEVER RIGID CEILING MATERIAL IS NOT DIRECTLY ATTACHED TO THE VERTICAL STUDS @ 48" O.C.. ATTACHED BOTTOM CHORD. WITH (3) - 10d (0.131" X 3") NAILS AT EACH END OF VERTICAL (TYP.). VERTICAL STUDS TO BE 2 x 4 STUD GRADE (OR BETTER) SPF, HF, DF OR SP. (BOARD SIZÉ SPECIFIED IS MINIMUM, LARGER SIZE MAY BE USED) 2 x 4 NO. 2 (OR BETTER) SPF, HF DF OR SP FALSE BOTTOM CHORD (BOARD SIZE SPECIFIED IS MINIMUM, LARGER SIZE MAY BE USED) **FALSE BOTTOM** TRUSS SPAN

# NOTES:

- 1. LOADING: TOP CHORD: (REFER TO THE MAIN TRUSS DESIGN FOR TOP CHORD LOADING). BOTTOM CHORD: LL = 0 PSF, DL = 10 PSF.
- 2. REFER TO THE MAIN TRUSS DESIGN FOR LUMBER AND PLATING REQUIREMENTS.
- 3. MAXIMUM BOTTOM CHORD PITCH = 6/12.
- 4. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID SPLITTING OF THE WOOD.
- 5. FALSE BOTTOM CHORD ONLY DESIGNED TO CARRY VERTICAL LOAD. NO LATERAL (SHEAR) LOAD ALLOWED.
- 6. FILLER MAY EXTEND FOR FULL LENGTH OF TRUSS.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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



# **AUGUST 1, 2016**

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

# MII-T-BRACE 2 T23399807

MiTek USA, Inc.

Page 1 of 1



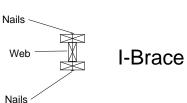
Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

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

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

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

|            | Nails                        |
|------------|------------------------------|
| WEB        | SPACING                      |
|            | T-BRACE                      |
| Nails<br>\ | Section Detail  T-Brace  Web |



|            | 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.

This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

April 2,2021

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 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

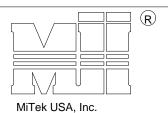
# **AUGUST 1, 2016**

# SCAB-BRACE DETAIL

# MII-SCAB-BRACE T23399808

MiTek USA, Inc.

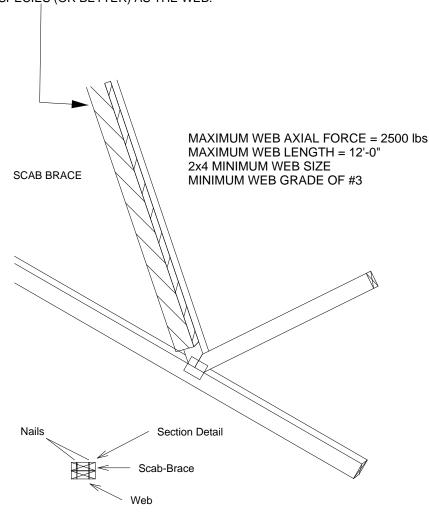
Page 1 of 1



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.

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



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

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

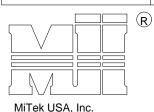


# AUGUST 1, 2016

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

# MII-REP05 T23399809

MiTek USA, Inc. Page 1 of 1

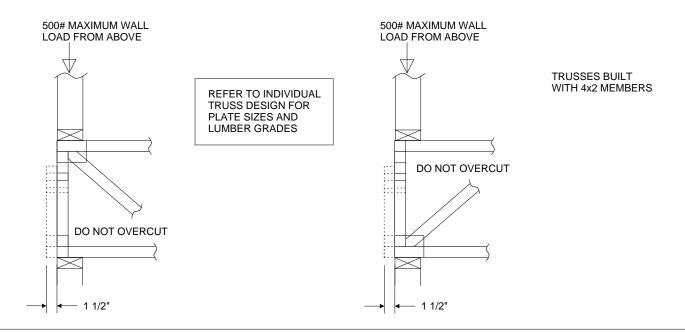


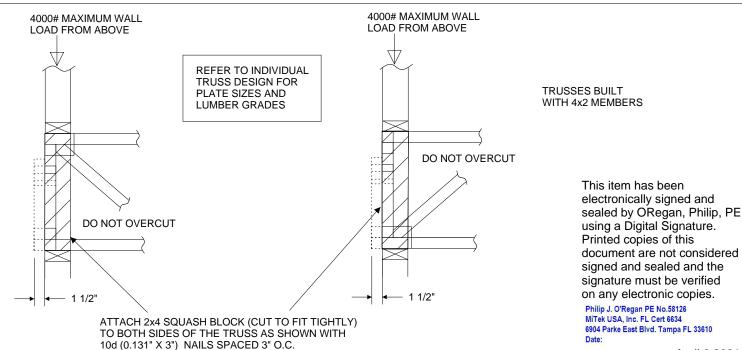
- 1. THIS IS A SPECIFIC REPAIR DETAIL TO BE USED ONLY FOR ITS ORIGINAL INTENTION. THIS REPAIR DOES NOT IMPLY THAT THE REMAINING PORTION OF THE TRUSS IS UNDAMAGED. THE ENTIRE TRUSS SHALL BE INSPECTED TO VERIFY THAT NO FURTHER REPAIRS ARE REQUIRED. WHEN THE REQUIRED REPAIRS ARE PROPERLY APPLIED, THE TRUSS WILL BE CAPABLE OF SUPPORTING THE LOADS INDICATED.
- 2. ALL MEMBERS MUST BE RETURNED TO THEIR ORIGINAL POSITIONS BEFORE
- APPLYING REPAIR AND HELD IN PLACE DURING APPLICATION OF REPAIR.

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

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

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







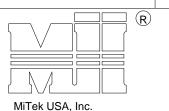
# APRIL 12, 2019

# Standard Gable End Detail

# MII-GE130-D-SP T23399810

Page 1 of 2

MiTek USA. Inc.



Typical \_x4 L-Brace Nailed To 2x\_ Verticals W/10d Nails spaced 6" o.c. Vertical Stud SECTION B-B

DIAGONAL BRACE 4'-0" O.C. MAX TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. 12 Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA \*\* 3x4 = - Diagonal Bracing - L-Bracing Refer \*\* Refer to Section A-A to Section B-B

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 **SECTION A-A** 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.

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

# Roof Sheathing

24" Max

if needed

**End Wall** 

# 1'-3" (2) - 10d/ Max. **NAILS** (2) - 10d NAILS

2x6 DIAGONAL BRACE SPACED 48" O.C. Diag. Brace ATTACHED TO VERTICAL WITH (4) -16d at 1/3 points NAILS AND ATTACHED

TO BLOCKING WITH (5) - 10d NAILS.

HORIZONTAL BRACE (SEE 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
- 4. "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C. 5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF
- DIAPHRAM AT 4'-0" O.C.
- 6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
- 7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
- 8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES
- 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")

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

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

MAX MEAN ROOF HEIGHT = 30 FEET CATEGORY II BUILDING EXPOSURE D

ASCE 7-10, ASCE 7-10 130 MPH

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

DURANION OF COAD INCREASE LIFE AS OF READ NOT CONNECTION OF BRACTING IS BASED ON MY FIRST. 519/2020 BEFORE USE.

Design valid for use only with MITEK® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

\*\*ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\* available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd

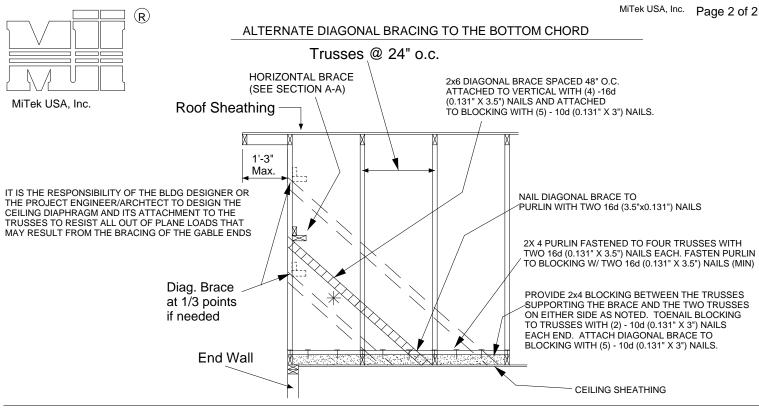
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Trusses @ 24" o.c.

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# Standard Gable End Detail

# MII-SHEET 2 T23399810



# BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

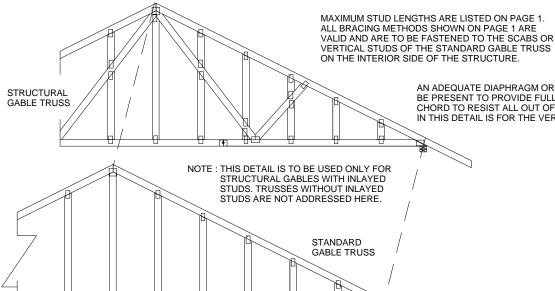
METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE

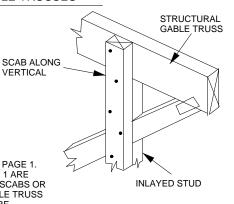
FOLLOWING NAILING SCHEDULE.

METHOD 2: ATTACH 2X\_SCABS TO THE FACE OF EACH VERTICAL
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING
NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

EING SCHEDEL:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL
- MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL
- MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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April 2,2021

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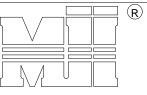
# APRIL 12, 2019

# Standard Gable End Detail

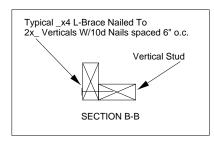
# MII-GE130-SP T23399811

Page 1 of 2

MiTek USA, Inc.



MiTek USA, Inc.



DIAGONAL BRACE TRUSS GEOMETRY AND CONDITIONS 4'-0" O.C. MAX SHOWN ARE FOR ILLUSTRATION ONLY. 12 Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =- Diagonal Bracing - L-Bracing Refer

to Section B-B

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 **SECTION A-A** 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.

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

# Roof Sheathing

24" Max



Trusses @ 24" o.c.

2x6 DIAGONAL BRACE SPACED 48" O.C. Diag. Brace ATTACHED TO VERTICAL WITH (4) -16d at 1/3 points NAILS AND ATTACHED

TO BLOCKING WITH (5) - 10d NAILS. if needed

HORIZONTAL BRACE **End Wall** (SEE SECTION A-A)

# NOTE:

Refer to Section A-A

- 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 DEFLECTIÓN MEETS OR EXCEEDS L/240.
- 8. THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES.
  9. DO NOT USE FLAT BOTTOM CHORD GABLES NEXT TO SCISSOR TYPE TRUSSES.
- 10. SOUTHERN PINE LUMBER DESIGN VALUES ARE THOSE EFFECTIVE 06-01-13 BY SPIB/ALSC.
- NAILS DESIGNATED 10d ARE (0.131" X 3") AND NAILS DESIGNATED 16d ARE (0.131" X 3.5")

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

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

ASCE 7-98, ASCE 7-02, ASCE 7-05 130 MPH

ASCE 7-36, ASCE 7-20 ISO MPH

STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.

DURANION OF GABUNGREASE 1914.60 READ NOT CONNECTION OF BRACTINGRS BASED ON MWFRS. 5/19/2020 BEFORE USE.

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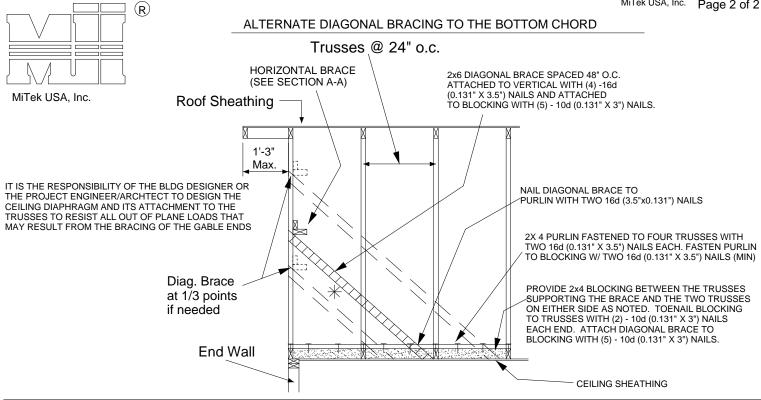
April 2,2021

on any electronic copies.

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MAX MEAN ROOF HEIGHT = 30 FEET CATEGORY II BUILDING EXPOSURE B or C

MiTek USA, Inc. Page 2 of 2



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED: METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE

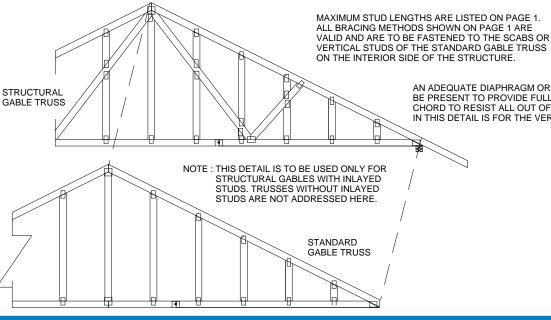
FOLLOWING NAILING SCHEDULE.

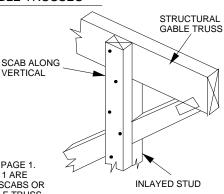
METHOD 2: ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

### NAILING SCHEDULE:

FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.

- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, Ó2, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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April 2,2021

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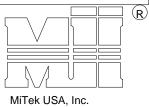
### **JANUARY 6, 2017**

### Standard Gable End Detail

### MII-GE140-001 T23399812

Page 1 of 2

MiTek USA, Inc.



DIAGONAL BRACE

Typical \_x4 L-Brace Nailed To 2x\_ Verticals W/10d Nails spaced 6" o.c. Vertical Stud SECTION B-B

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 TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Typical Horizontal Brace Nailed To 2x\_ Verticals w/(4)-10d Nails **SECTION A-A** 2x4 Stud

4'-0" O.C. MAX Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =Diagonal Bracing \*\* - L-Bracing Refer Refer to Section A-A to Section B-B

TWO TRUSSES AS NOTED. TOENAIL BLOCKING TO TRUSSES WITH (2) - 10d NAILS AT EACH END. ATTACH DIAGONAL BRACE TO BLOCKING WITH (5) - 10d NAILS. (4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD SHEATHING TO 2x4 STD DF/SPF BLOCK

PROVIDE 2x4 BLOCKING BETWEEN THE FIRST

Roof Sheathing -

- 1. MINIMUM GRADE OF #2 MATERIAL IN THE TOP AND BOTTOM CHORDS. 2. CONNECTION BETWEEN BOTTOM CHORD OF GABLE END TRUSS AND
- WALL TO BE PROVIDED BY PROJECT ENGINEER OR ARCHITECT.

  3. BRACING SHOWN IS FOR INDIVIDUAL TRUSS ONLY. CONSULT BLDG. ARCHITECT OR ENGINEER FOR TEMPORARY AND PERMANENT BRACING OF ROOF SYSTEM.
- "L" BRACES SPECIFIED ARE TO BE FULL LENGTH. GRADES: 1x4 SRB OR 2x4 STUD OR BETTER WITH ONE ROW OF 10d NAILS SPACED 6" O.C.
- 5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C. 6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 STUD AND A
- 2x4 STUD AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST STUD. ATTACH TO VERTICAL STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
- GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
- THIS DETAIL DOES NOT APPLY TO STRUCTURAL GABLES. 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")

|          | 11001 Officati                 | g            |                |                       | /                   |   |
|----------|--------------------------------|--------------|----------------|-----------------------|---------------------|---|
| 0.4" 1.4 |                                |              | <u> </u>       |                       | ×                   |   |
| 24" Max  | M                              |              | _              |                       |                     | / /   |
|          | 1'-3"<br>Max.                  | (2) -<br>NAI | 10d            |                       |                     | (2) - 10d NAILS                             |
|          |                                |              | */             | <b>1</b>              | russes              | s @ 24" o.c.                                |
| at 1     | g. Brace<br>/3 points<br>eeded |              | ATTAC<br>NAILS | CHED TO V<br>AND ATTA | ERTICAL \           | ACED 48" O.C.<br>WITH (4) -16d<br>0d NAILS. |
|          | End Wall                       | \            |                | -                     | ZONTAL E<br>SECTION |   |
|          | _                              | 1 1          |                |                       |                     |   |

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

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

MAXIMUM WIND SPEED = 140 MPH MAX MEAN ROOF HEIGHT = 30 FEET CATEGORY II BUILDING EXPOSURE B or C

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April 2,2021

ASCE 7-98, ASCE 7-02, ASCE 7-05

DURANON-OFIGOAD/INGREASE::pt.6:0 REAP GONNECTION IOFISBASED ON COMPONENTS AND CLADDING.

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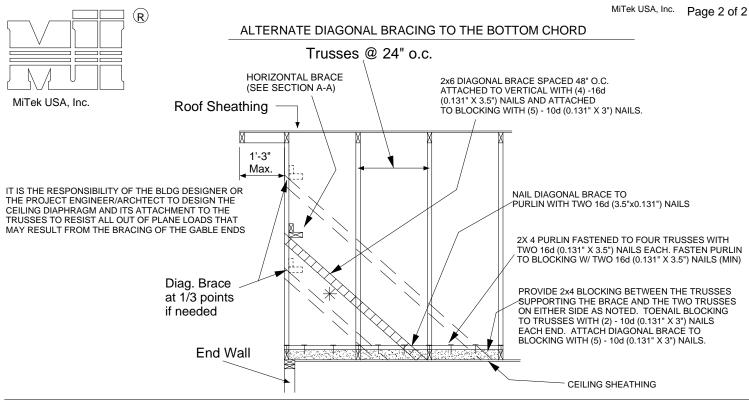
\*\*ANSITP11 Quality Criteria, DSB-89 and BCSI Building Component Safety Information\*\*

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

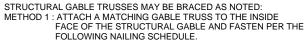


### Standard Gable End Detail

MII-SHEET 2 T23399812



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES



METHOD 2 : ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL

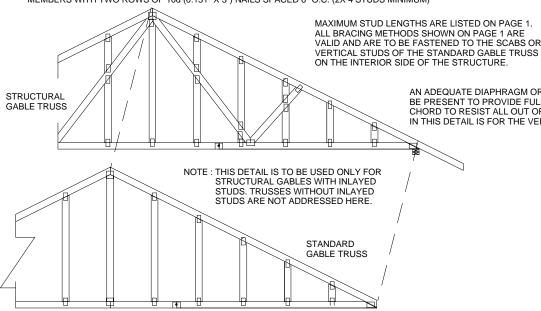
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING

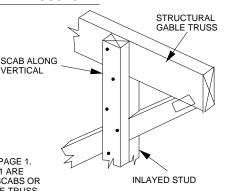
NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

### NAILING SCHEDULE:

FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL

MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAÎLS SPACED 6" O.C. (2X 4 STÚDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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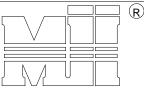


### Standard Gable End Detail

### MII-GE170-D-SP T23399813



Page 1 of 2



DIAGONAL BRACE

4'-0" O.C. MAX

MiTek USA, Inc.

- Diagonal Bracing

Refer to Section A-A

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

TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA \*\* 3x4 =

Vertical Stud 2X6 SP OR SPF No. 2 DIAGONAL BRACE (4) - 16d Nails 16d Nails Spaced 6" o.c. (2) - 10d Nails into 2x6 2X6 SP OR SPF No. 2 Typical Horizontal Brace Nailed To 2x4 Verticals w/(4)-10d Nails SECTION A-A 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

### Roof Sheathing

1'-0" 10d/ Max. **NÁILS** (2) - 10d NAILS

Diag. Brace at 1/3 points

24" Max

if needed

**End Wall** 

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

HORIZONTAL BRACE (SEE 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

\*\*

- L-Bracing Refer

to Section B-B

- 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. 5. DIAGONAL BRACE TO BE APPROXIMATELY 45 DEGREES TO ROOF DIAPHRAM AT 4'-0" O.C.
- 6. CONSTRUCT HORIZONTAL BRACE CONNECTING A 2x6 AND A 2x4 AS SHOWN WITH 16d NAILS SPACED 6" O.C. HORIZONTAL BRACE TO BE LOCATED AT THE MIDSPAN OF THE LONGEST GABLE STUD. ATTACH TO VERTICAL GABLE STUDS WITH (4) 10d NAILS THROUGH 2x4. (REFER TO SECTION A-A)
- 7. GABLE STUD DEFLECTION MEETS OR EXCEEDS L/240.
- 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 | Stud<br>Spacing | Without<br>Brace    | 2x4<br>L-Brace | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |         |  |  |  |
|---------------------------------|-----------------|---------------------|----------------|---------------------------------------|---------|--|--|--|
| and Grade                       |                 | Maximum Stud Length |                |                                       |         |  |  |  |
| 2x4 SP No. 3 / Stud             | 12" O.C.        | 3-9-7               | 5-8-8          | 6-11-1                                | 11-4-4  |  |  |  |
| 2x4 SP No. 3 / Stud             | 16" O.C.        | 3-4-12              | 4-11-15        | 6-9-8                                 | 10-2-3  |  |  |  |
| 2x4 SP No. 3 / Stud             | 24" O.C.        | 2-9-4               | 4-0-7          | 5-6-8                                 | 8-3-13  |  |  |  |
| 2x4 SP No. 2                    | 12" O.C.        | 3-11-13             | 5-8-8          | 6-11-1                                | 11-11-7 |  |  |  |
| 2x4 SP No. 2                    | 16" O.C.        | 3-7-7               | 4-11-5         | 6-11-1                                | 10-10-5 |  |  |  |
| 2x4 SP No. 2                    | 24" O.C.        | 3-1-15              | 4-0-7          | 6-3-14                                | 9-5-14  |  |  |  |

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

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∕Trusses @ 24" o.c.

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April 2,2021

MAX MEAN ROOF HEIGHT = 30 FEET EXPOSURE D

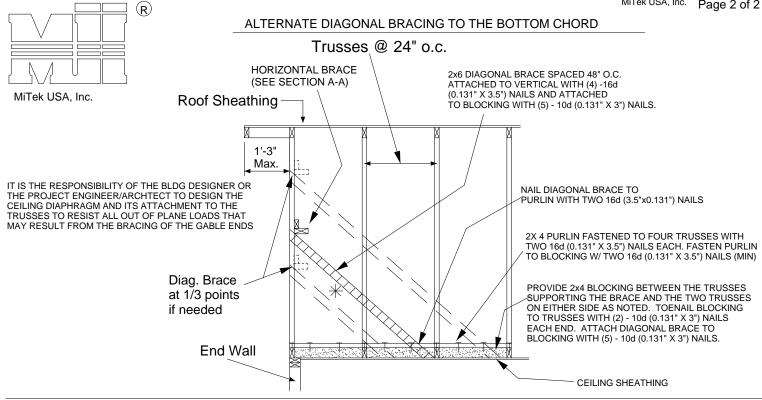
TUD DESIGN IS BASED ON COMPONENTS DURATION OF LOAD INCREASE: 1.60
WARNING - Verify design parameters and READ NOTE CONNECTION OF BRACING IS BASED ON MAYERS: 5/19/2020 BEFORE USE

Design valid for use only with MITek® connectors. This design is based only upon parameters and roperly incorporate this design in the overall building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent 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



MiTek USA, Inc. Page 2 of 2



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

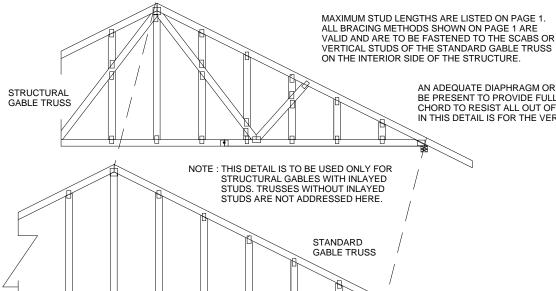
METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE

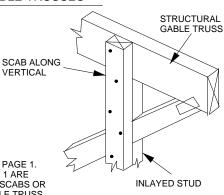
FOLLOWING NAILING SCHEDULE.

METHOD 2: ATTACH 2X\_SCABS TO THE FACE OF EACH VERTICAL
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING
NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

EING SCHEDEL:
- FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL
- MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL
- MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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

April 2,2021

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

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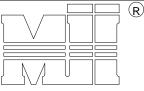


### Standard Gable End Detail

### MII-GE180-D-SP T23399814



Page 1 of 2



DIAGONAL BRACE

4'-0" O.C. MAX

MiTek USA, Inc.

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

Vertical Stud

SECTION B-B

TRUSS GEOMETRY AND CONDITIONS SHOWN ARE FOR ILLUSTRATION ONLY.

Varies to Common Truss

Ė

\*\*

SEE INDIVIDUAL MITEK ENGINEERING

24" Max

End Wall

DRAWINGS FOR DESIGN CRITERIA

3x4 =

Vertical Stud

(4) - 16d Nails

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

SECTION A-A

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.

★ - Diagonal Bracing Refer to Section A-A

★★ - L-Bracing Refer to Section B-B

### NOTE:

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

| NAILS DESIGNATED 16d ARE (0.131" X 3.5") |                 |                     |                                       |        |         |  |  |  |
|--|-----------------|---------------------|---------------------------------------|--------|---------|--|--|--|
| Minimum<br>Stud Size<br>Species          | Stud<br>Spacing | Without<br>Brace    | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |        |         |  |  |  |
| and Grade                                |                 | Maximum Stud Length |                                       |        |         |  |  |  |
| 2x4 SP No. 3 / Stud                      | 12" O.C.        | 3-7-12              | 5-4-11                                | 6-2-1  | 10-11-3 |  |  |  |
| 2x4 SP No. 3 / Stud                      | 16" O.C.        | 3-2-8               | 4-8-1                                 | 6-2-1  | 9-7-7   |  |  |  |
| 2x4 SP No. 3 / Stud                      | 24" O.C.        | 2-7-7               | 3-9-12                                | 5-2-13 | 7-10-4  |  |  |  |
| 2x4 SP No. 2                             | 12" O.C.        | 3-10-0              | 5-4-11                                | 6-2-1  | 11-6-1  |  |  |  |
| 2x4 SP No. 2                             | 16" O.C.        | 3-5-13              | 4-8-1                                 | 6-2-1  | 10-5-7  |  |  |  |
| 2x4 SP No. 2                             | 24" O.C.        | 3-0-8               | 3-9-12                                | 6-1-1  | 9-1-9   |  |  |  |

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

Roof Sheathing

1'-0"

Max.

(2) - 10d

NAILS

(2) - 10d NAILS

(2) - 10d NAILS

(2) - 10d NAILS

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

(4) - 8d (0.131" X 2.5") NAILS MINIMUM, PLYWOOD

SHEATHING TO 2x4 STD SPF BLOCK

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HORIZONTAL BRACE

(SEE SECTION A-A)

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

April 2,2021

MAX MEAN ROOF HEIGHT = 30 FEET EXPOSURE D

ASCE 7-10, ASCE 7-16 180 MPH

DURATION ARIJE CAPY INCREASE: 13 AR READ NOTES CONNECTION OF BRACING IS BASED ON INVISES. 5/19/2020 BEFORE USE

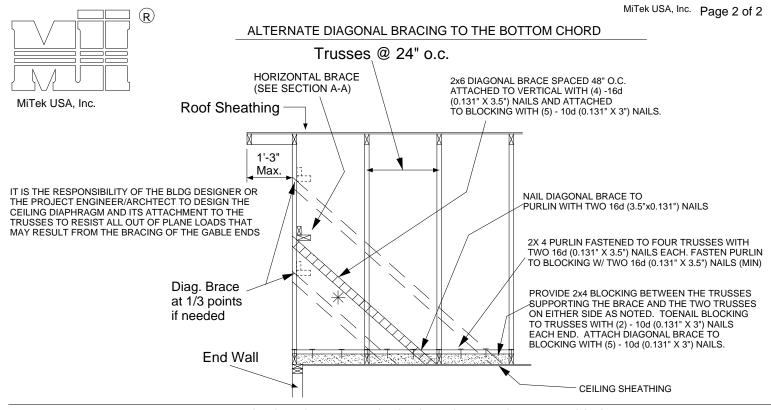
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

### Standard Gable End Detail

MII-SHEET 2 T23399814



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED: METHOD 1 : ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE FOLLOWING NAILING SCHEDULE.

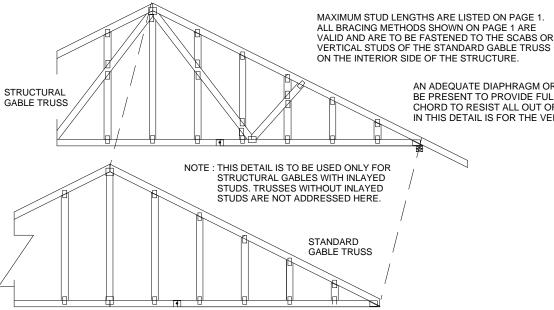
METHOD 2: ATTACH 2X \_ SCABS TO THE FACE OF EACH VERTICAL MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE

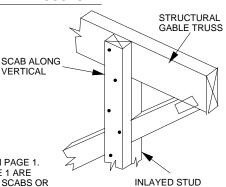
AND SPECIES AS THE TRUSS VERTICALS

NAILING SCHEDULE:

FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C. FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL

MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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April 2,2021

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



MiTek USA, Inc.

### STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

### MII-PIGGY-7-16 T23399815

MiTek USA, Inc. Page 1 of 1

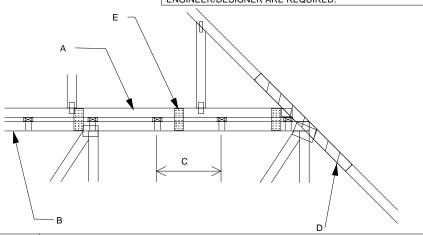
(R)

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 **ENCLOSED BUILDING** LOADING = 5 PSF TCDL ASCE 7-10, ASCE 7-16 **DURATION OF LOAD INCREASE: 1.60** 

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

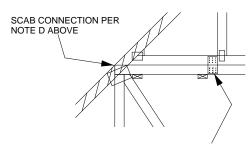
- A PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- A PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
  SHALL BE CONNECTED TO EACH PURLIN
  WITH (2) (0.131" X 3.5") TOE-NAILED.
  B BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
  C PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C.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

   2 X \_\_ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
- 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM
- PIGGYBACK SPAN OF 12 ft.
   FOR WIND SPEEDS BETWEEN 116 AND 180 MPH, ATTACH
  MITEK NP37 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) (0.131" X 1.5") NAILS PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" NAIL EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)

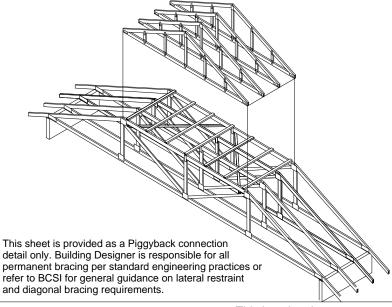


### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

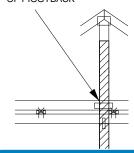
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH Nail-On PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



FOR ALL WIND SPEEDS, ATTACH MITEK NP37 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" NAIL EDGE DISTANCE.



VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



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

- VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL
- 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.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS,
  NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
  5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH

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April 2,2021

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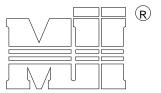


### JANUARY 8, 2019

### STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

### MII-PIGGY-ALT-7-16 T23399816

Page 1 of 1 MiTek USA, Inc.



MiTek USA, Inc.

MAXIMUM WIND SPEED = REFER TO NOTES D AND OR E MAX MEAN ROOF HEIGHT = 30 FEET MAX TRUSS SPACING = 24 " O.C. CATEGORY II BUILDING EXPOSURE B or C ENCLOSED BUILDING LOADING = 5 PSF TCDL MINIMUM

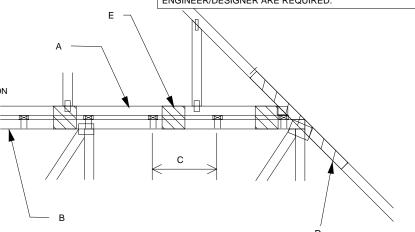
ASCE 7-10, ASCE 7-16 **DURATION OF LOAD INCREASE: 1.60** 

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

- A PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN
  WITH (2) 0(0.131" X 3.5") TOE-NAILED.

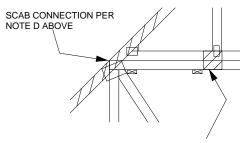
  BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
  - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C.
  UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING.

- UNLESS SPECIFIED CLOSER OIN MITEX TRUSS DESIGN DRAWING.
  CONNECT TO BASE TRUSS WITH (2) (0.131" X 3.5") NAILS EACH.
   2 X \_ X 4'-0" SCAB, SIZE TO MATCH TOP CHORD OF
  PIGGYBACK TRUSS, MIN GRADE #2, ATTACHED TO ONE FACE, CENTERED ON
  INTERSECTION, WITH (2) ROWS OF (0.131" X 3") NAILS @ 4" O.C.
  SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND:
- 1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR 2. WIND SPEED OF 116 MPH TO 180 MPH WITH A MAXIMUM
- PIGGYBACK SPAN OF 12 ft.
  E FOR WIND SPEED IN THE RANGE 116 MPH 180 MPH ADD 9" x 9" x 1/2" PLYWOOD (or 7/16" OSB) GUSSET EACH SIDE AT 48" O.C. OR LESS. ATTACH WITH 3 - 6d (0.113" X 2") NAILS INTO EACH CHORD FROM EACH SIDE (TOTAL - 12 NAILS)

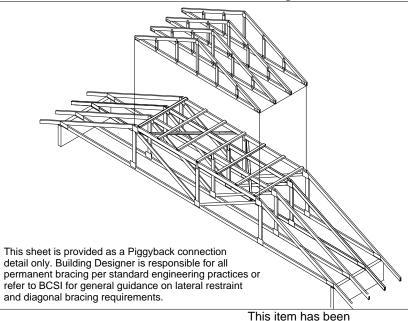


WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

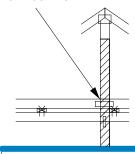
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH PLYWOOD GUSSETS AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING.



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



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



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

- 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 ATTACH 2 x 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.
  4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH

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April 2,2021

IE PIGGYBACK AND THE BASE TRUSS DESIGN \Lambda WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE

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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

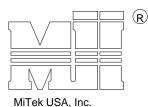


### STANDARD REPAIR DETAIL FOR BROKEN CHORDS, WEBS AND DAMAGED OR MISSING CHORD SPLICE PLATES

### MII-REP01A1 T23399817

MiTek USA, Inc.

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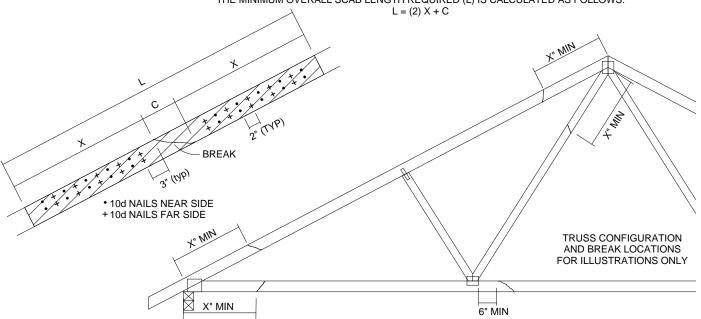


| TOTAL NUMBER OF<br>NAILS EACH SIDE<br>OF BREAK * |     |             | MAXIMUM FORCE (lbs) 15% LOAD DURATION |      |      |      |      |      |      |      |  |
|--|-----|-------------|---------------------------------------|------|------|------|------|------|------|------|--|
|  |     | X<br>INCHES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

<sup>\*</sup> 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

- 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.
  THIS REPAIR IS TO BE USED FOR SINGLE PLY TRUSSES IN THE 2x\_ ORIENTATION ONLY.
- 6. THIS REPAIR IS LIMITED TO TRUSSES WITH NO MORE THAN THREE BROKEN MEMBERS.

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### LATERAL TOE-NAIL DETAIL

MII-TOENAIL SP T23399818

MiTek USA. Inc.

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### NOTES:

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

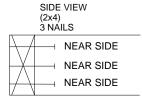
|       | TOE-NAIL SINGLE SHEAR VALUES PER NDS 2018 (lb/nail) |           |      |      |      |      |  |  |  |  |  |
|-------|---|-----------|------|------|------|------|--|--|--|--|--|
|       | DIAM. SP DF HF SPF SPF-S                            |           |      |      |      |      |  |  |  |  |  |
| 9     | .131  | .131 88.0 |      | 69.9 | 68.4 | 59.7 |  |  |  |  |  |
| LONG  | .135  | 93.5      | 85.6 | 74.2 | 72.6 | 63.4 |  |  |  |  |  |
| .5" L | .162  | 108.8     | 99.6 | 86.4 | 84.5 | 73.8 |  |  |  |  |  |
| ω,    |   |           |      |      |      |      |  |  |  |  |  |
| ā     | .128  | 74.2      | 67.9 | 58.9 | 57.6 | 50.3 |  |  |  |  |  |
| LONG  | .131  | 75.9      | 69.5 | 60.3 | 59.0 | 51.1 |  |  |  |  |  |
| 3.25" | .148  | 81.4      | 74.5 | 64.6 | 63.2 | 52.5 |  |  |  |  |  |
| 3.2   |   |           | •    | •    |      |      |  |  |  |  |  |

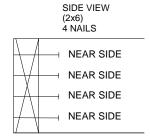
VALUES SHOWN ARE CAPACITY PER TOE-NAIL APPLICABLE DURATION OF LOAD INCREASES MAY BE APPLIED.

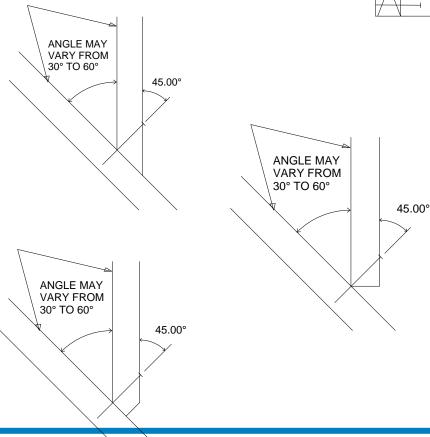
(3) - 16d (0.162" X 3.5") NAILS WITH SPF SPECIES BOTTOM CHORD

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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April 2,2021

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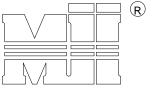


### TRUSSED VALLEY SET DETAIL

### MII-VALLEY HIGH WIND1 T23399819

MiTek USA, Inc.

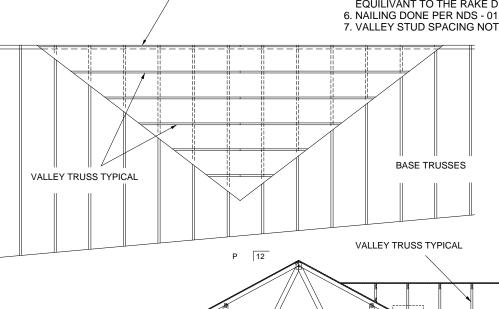
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MiTek USA, Inc.

### **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.
- 7. VALLEY STUD SPACING NOT TO EXCEED 48" O.C.



GABLE END, COMMON TRUSS

OR GIRDER TRUSS

GABLE END, COMMON TRUSS OR GIRDER TRUSS

SEE DETAIL A BELOW (TYP.)

SECURE VALLEY TRUSS W/ ONE ROW OF 10d NAILS 6" O.C. ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/ TWO USP WS3 (1/4" X 3") WOOD SCREWS INTO EACH BASE TRUSS. **DETAIL A** (NO SHEATHING) N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 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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April 2,2021

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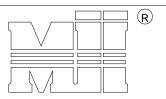
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### TRUSSED VALLEY SET DETAIL

### MII-VALLEY HIGH WIND2 T23399820

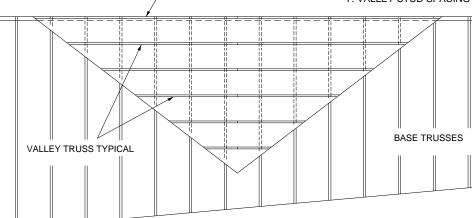
MiTek USA, Inc.

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### **GENERAL SPECIFICATIONS**

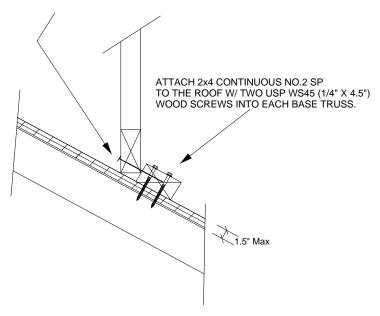
- 1. NAIL SIZE 10d (0.131" X 3")
- 2. WOOD SCREW = 4.5" WS45 USP OR EQUILIVANT
- 3. INSTALL SHEATHING TO TOP CHORD OF BASE TRUSSES.
- INSTALL SHEATING TO TOP CHORD OF BASE TRUS
   INSTALL VALLEY TRUSSES (24" O.C. MAXIMUM) AND
   SECURE TO BASE TRUSSES AS PER DETAIL A
   BRACE VALLEY WEBS IN ACCORDANCE 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

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

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



WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 146 MPH WIND DESIGN PER ASCE 7-10, ASCE 7-16 160 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 6/12 CATEGORY II BUILDING EXPOSURE C WIND DURATION OF LOAD INCREASE: 1.60 MAX TOP CHORD TOTAL LOAD = 50 PSF MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 6 PSF ON THE TRUSSES

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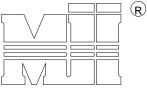


### TRUSSED VALLEY SET DETAIL

### MII-VALLEY SP T23399821

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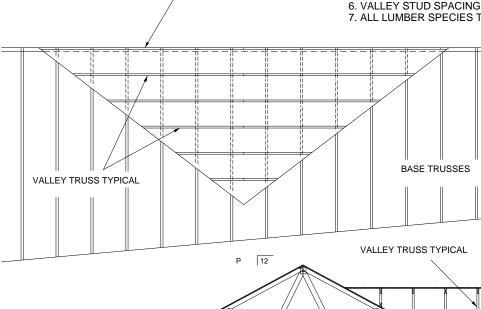
Page 1 of 1



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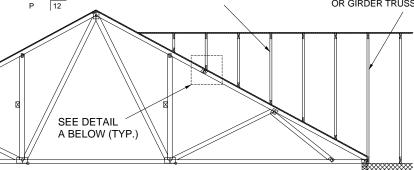
### **GENERAL SPECIFICATIONS**

- 1. NAIL SIZE 16d (0.131" X 3.5")
- 2. INSTALL VALLÈY 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

GABLE END, COMMON TRUSS OR GIRDER TRUSS



SECURE VALLEY TRUSS W/ ONE ROW OF 16d NAILS 6" O.C. ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/ TWO 16d NAILS INTO EACH BASE TRUSS. THE REAL PROPERTY. **DETAIL A** (MAXIMUM 1" SHEATHING) N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH WIND DESIGN PER ASCE 7-10, ASCE 7-16 150 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12 CATEGORY II BUILDING EXPOSURE C OR B
WIND DURATION OF LOAD INCREASE: 1.60
MAX TOP CHORD TOTAL LOAD = 60 PSF
MAX SPACING = 24" O.C. (BASE AND VALLEY)
MINIMUM REDUCED DEAD LOAD OF 4.2 PSF ON THE TRUSSES

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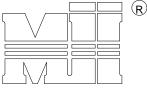


### TRUSSED VALLEY SET DETAIL

### MII-VALLEY SP T23399822

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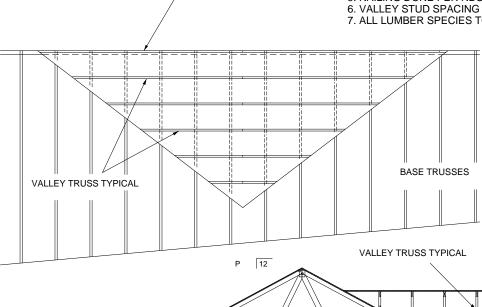
Page 1 of 1



MiTek USA, Inc.

### **GENERAL SPECIFICATIONS**

- 1. NAIL SIZE 16d (0.131" X 3.5")
- 2. INSTALL VALLÈY 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

GABLE END, COMMON TRUSS OR GIRDER TRUSS

SEE DETAIL A BELOW (TYP.) SECURE VALLEY TRUSS

W/ ONE ROW OF 16d NAILS 6" O.C. ATTACH 2x4 CONTINUOUS NO.2 SP TO THE ROOF W/ TWO 16d NAILS INTO EACH BASE TRUSS. THE REAL PROPERTY. **DETAIL A** (MAXIMUM 1" SHEATHING) N.T.S.

WIND DESIGN PER ASCE 7-98, ASCE 7-02, ASCE 7-05 120 MPH WIND DESIGN PER ASCE 7-10, ASCE 7-16 150 MPH MAX MEAN ROOF HEIGHT = 30 FEET ROOF PITCH = MINIMUM 3/12 MAXIMUM 10/12 CATEGORY II BUILDING EXPOSURE C OR B WIND DURATION OF LOAD INCREASE: 1.60 MAX TOP CHORD TOTAL LOAD = 60 PSF MAX SPACING = 24" O.C. (BASE AND VALLEY) MINIMUM REDUCED DEAD LOAD OF 4.2 PSF ON THE TRUSSES

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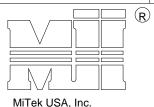
### **AUGUST 1, 2016**

### Standard Gable End Detail

### MII-GE146-001 T23399823



Page 1 of 2



Typical \_x4 L-Brace Nailed To 2x\_ Verticals W/10d Nails spaced 6" o.c. Vertical Stud SECTION B-B

DIAGONAL BRACE TRUSS GEOMETRY AND CONDITIONS 4'-0" O.C. MAX SHOWN ARE FOR ILLUSTRATION ONLY. Varies to Common Truss SEE INDIVIDUAL MITEK ENGINEERING DRAWINGS FOR DESIGN CRITERIA 3x4 =Ŕ

- L-Bracing Refer

to Section B-B

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 **SECTION A-A** 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.

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

### NOTE:

Diagonal Bracing

Refer to Section A-A

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

| Minimum<br>Stud Size<br>Species | Stud<br>Spacing | Without<br>Brace    | 2x4<br>L-Brace | DIAGONAL<br>BRACE | 2 DIAGONAL<br>BRACES AT<br>1/3 POINTS |  |  |
|---------------------------------|-----------------|---------------------|----------------|-------------------|---------------------------------------|--|--|
| and Grade                       |                 | Maximum Stud Length |                |                   |                                       |  |  |
| 2x4 SP No 3/Stud                | 12" O.C.        | 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.

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

> This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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April 2,2021

MAXIMUM WIND SPEED = 146 MPH MAX MEAN ROOF HEIGHT = 30 FEET CATEGORY II BUILDING EXPOSURE B or C

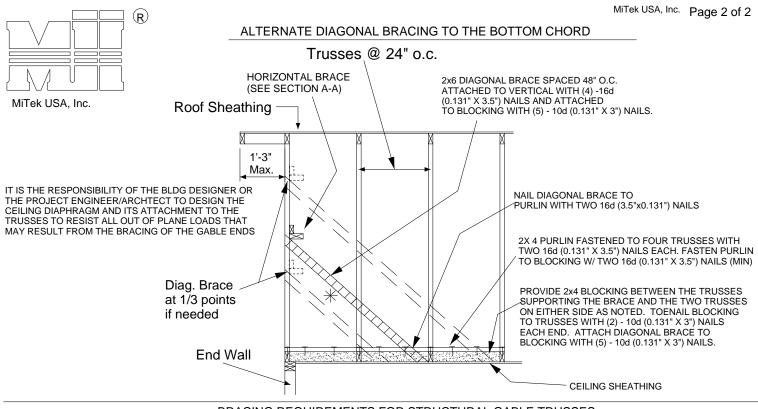
ASCE 7-98, ASCE 7-02, ASCE 7-05
STUD DESIGN IS BASED ON COMPONENTS AND CLADDING.
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Design valid for use only with MTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



### Standard Gable End Detail

MII-SHEET 2 T23399823



### BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED: METHOD 1: ATTACH A MATCHING GABLE TRUSS TO THE INSIDE FACE OF THE STRUCTURAL GABLE AND FASTEN PER THE

FOLLOWING NAILING SCHEDULE.

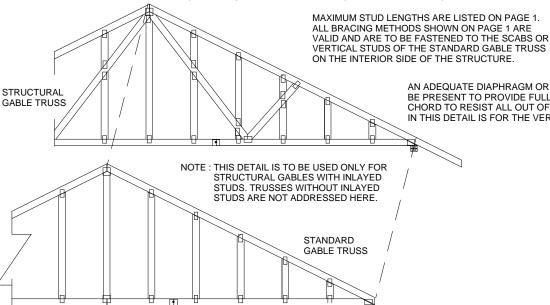
METHOD 2: ATTACH 2X SCABS TO THE FACE OF EACH VERTICAL

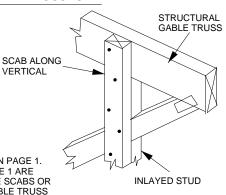
MEMBER ON THE STRUCTURAL GABLE PER THE FOLLOWING

NAILING SCHEDULE. SCABS ARE TO BE OF THE SAME SIZE, GRADE AND SPECIES AS THE TRUSS VERTICALS

FOR WIND SPEEDS 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10, 16) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (0.131" X 3") NAILS SPACED 6" O.C. - FOR WIND SPEEDS 120-150 MPH (ASCE 7-98, 02, 05), 150-190 MPH (ASCE 7-10, 16) NAIL ALL

MEMBERS WITH TWO ROWS OF 10d (0.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)





AN ADEQUATE DIAPHRAGM OR OTHER METHOD OF BRACING MUST BE PRESENT TO PROVIDE FULL LATERAL SUPPORT OF THE BOTTOM CHORD TO RESIST ALL OUT OF PLANE LOADS. THE BRACING SHOWN IN THIS DETAIL IS FOR THE VERTICAL/STUDS ONLY.

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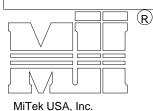
### **OCTOBER 5, 2016**

### REPLACE BROKEN OVERHANG

MII-REP13B T23399824

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TRUSS CRITERIA:

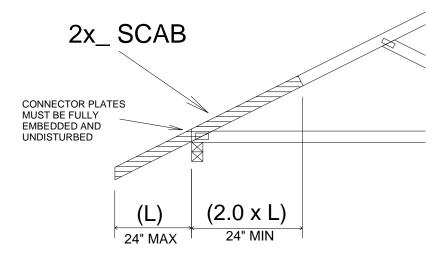
LOADING: 40-10-0-10 DURATION FACTOR: 1.15 SPACING: 24" O.C. TOP CHORD: 2x4 OR 2x6 PITCH: 4/12 - 12/12

HEEL HEIGHT: STANDARD HEEL UP TO 12" ENERGY HEEL

END BEARING CONDITION

### NOTES:

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



### **IMPORTANT**

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

Trusses not fitting these criteria should be examined individually.

REFER TO INDIVIDUAL TRUSS DESIGN FOR PLATE SIZES AND LUMBER GRADES This item has been electronically signed and sealed by ORegan, Philip, PE using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

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

April 2,2021



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 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

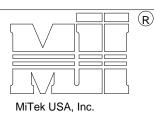
available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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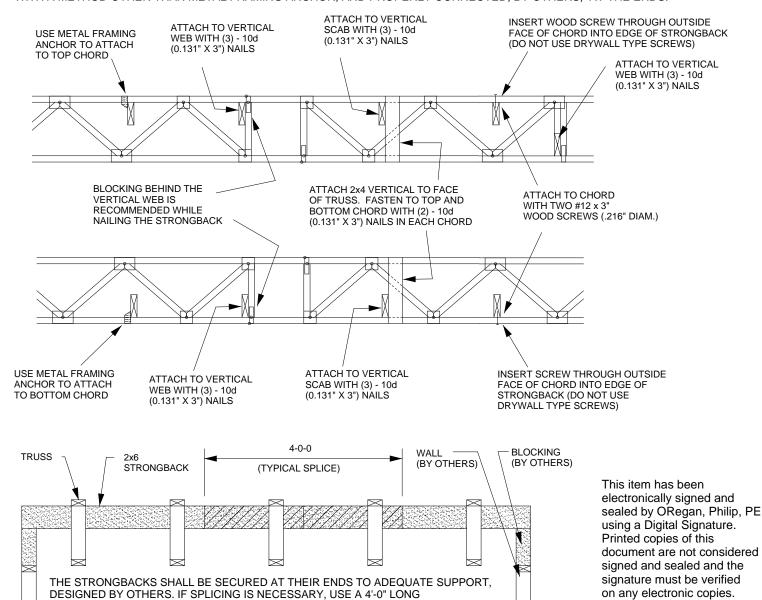
Page 1 of 1



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.



(0.131" X 3") NAILS EQUALLY SPACED.
ALTERNATE METHOD OF SPLICING:

OVERLAP STRONGBACK MEMBERS A MINIMUM OF 4'-0" AND FASTEN WITH (12) - 10d (0.131" X 3") NAILS STAGGERED AND EQUALLY SPACED.

(TO BE USED ONLY WHEN STRONGBACK IS NOT ALIGNED WITH A VERTICAL)

SCAB CENTERED ON THE SPLICE AND JOINED WITH (12) - 10d

April 2,2021

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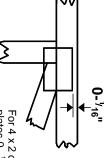


### Symbols

## PLATE LOCATION AND ORIENTATION



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



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

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

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

### PLATE SIZE

4 × 4

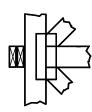
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

### **BEARING**



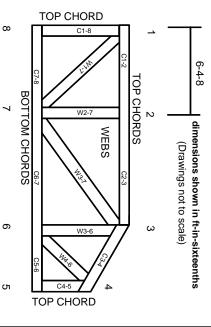
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: 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

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

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

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

# **General Safety Notes**

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no 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.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- 20. 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.