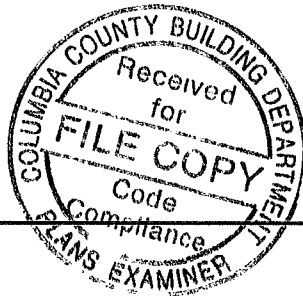


**JULIUS LEE PE.**



RE: 543737 - Jennings Additions

**1109 COASTAL BAY BLVD,  
BOYNTON BEACH, FL 33435**

**Site Information:**

Project Customer. JENNINGS - O/B Project Name. 543737 Model. ADDITIONS  
Lot/Block: Subdivision:  
Address: 203 NW SPRINGHILL  
City: COLUMBIA CTY State FL

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

Name Unknown at time of seal License #. Unknown at time of seal  
Address: Unknown at time of seal  
City: Unknown at time of seal State. Unknown at time of seal

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

Design Code: FBC2010/TPI2007 Design Program: MiTek 20/20 7.3  
Wind Code: ASCE 7-10 Wind Speed: 130 mph Floor Load: N/A psf  
Roof Load: 32.0 psf

This package includes 53 individual, dated 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  
This document processed per section 16G15-23 003 of the Florida Board of Professionals Rules

**In the event of changes from Builder or E.O.R. additional coversheets and drawings may accompany this coversheet. The latest approval dates supersede and replace the previous drawings.**

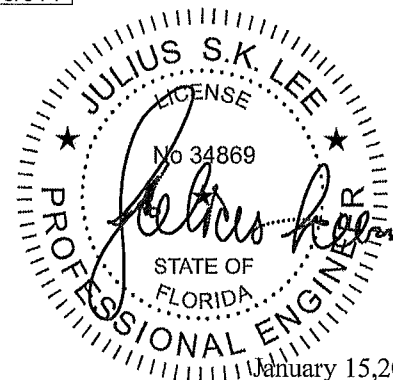
| No. | Seal#    | Truss Name | Date     | No. | Seal#    | Truss Name | Date     |
|-----|----------|------------|----------|-----|----------|------------|----------|
| 1   | I7716413 | CJ01       | 1/15/014 | 18  | I7716430 | PB02       | 1/15/014 |
| 2   | I7716414 | CJ02       | 1/15/014 | 19  | I7716431 | PB03       | 1/15/014 |
| 3   | I7716415 | CJ05       | 1/15/014 | 20  | I7716432 | PB04       | 1/15/014 |
| 4   | I7716416 | CJ06       | 1/15/014 | 21  | I7716433 | PB05       | 1/15/014 |
| 5   | I7716417 | CJ07       | 1/15/014 | 22  | I7716434 | PB06       | 1/15/014 |
| 6   | I7716418 | EJ01       | 1/15/014 | 23  | I7716435 | PB07       | 1/15/014 |
| 7   | I7716419 | EJ02       | 1/15/014 | 24  | I7716436 | PB07G      | 1/15/014 |
| 8   | I7716420 | EJ03       | 1/15/014 | 25  | I7716437 | T01        | 1/15/014 |
| 9   | I7716421 | EJ04       | 1/15/014 | 26  | I7716438 | T02        | 1/15/014 |
| 10  | I7716422 | EJ05       | 1/15/014 | 27  | I7716439 | T03        | 1/15/014 |
| 11  | I7716423 | EJ06       | 1/15/014 | 28  | I7716440 | T04        | 1/15/014 |
| 12  | I7716424 | FG1        | 1/15/014 | 29  | I7716441 | T05        | 1/15/014 |
| 13  | I7716425 | HJ01       | 1/15/014 | 30  | I7716442 | T06        | 1/15/014 |
| 14  | I7716426 | HJ02       | 1/15/014 | 31  | I7716443 | T07        | 1/15/014 |
| 15  | I7716427 | HJ03       | 1/15/014 | 32  | I7716444 | T08        | 1/15/014 |
| 16  | I7716428 | HJ04       | 1/15/014 | 33  | I7716445 | T09        | 1/15/014 |
| 17  | I7716429 | PB01       | 1/15/014 | 34  | I7716446 | T09G       | 1/15/014 |

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

Truss Design Engineer's Name: Julius Lee

My license renewal date for the state of Florida is February 28, 2015.

**NOTE:** The seal on these drawings indicate acceptance of professional engineering responsibility solely for the truss components shown. The suitability and use of this component for any particular building is the responsibility of the building designer, per ANSI/TPI-1 Chapter 2.



|   |               |  |          |          |  |          |
|---|---------------|--|----------|----------|--|----------|
| Job<br>543737                           | Truss<br>CJ01 | Truss Type<br>Jack-Open Truss  | Qty<br>2 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716413 |
| Builders FirstSource Lake City FL 32055 |               | 7.360 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:23:56 2014 Page 1 |          |          |  |          |

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Scale = 1:22.1

|               |                      |            |                          |               |          |
|---------------|----------------------|------------|--------------------------|---------------|----------|
| LOADING (psf) | SPACING              | CSI        | DEFL                     | PLATES        | GRIP     |
| TCLL 20.0     | 2-0-0                | TC 0.59    | In (loc) l/defl L/d      | MT20          | 244/190  |
| TCDL 7.0      | Plates Increase 1.25 | BC 0.24    | Vert(LL) 0.00 6 >999 240 |               |          |
| BCLL 0.0 *    | Lumber Increase 1.25 | WB 0.00    | Vert(TL) 0.00 6 >999 180 |               |          |
| BCDL 5.0      | Rep Stress Incr YES  | (Matrix-M) | Horz(TL) -0.06 3 n/a n/a |               |          |
|               | Code FBC2010/TPI2007 |            |                          | Weight: 10 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.3

**REACTIONS** (lb/size) 6=148/0-5-8 (min. 0-1 8) 5=-3/Mechanical, 3=-37/Mechanical

Max Horz 6=89(LC 12)

Max Uplift 5=-124(LC 12) 3=-98(LC 12)

Max Grav 6=212(LC 23) 5=39(LC 10) 3=22(LC 10)

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

**NOTES** (7-9)

1) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C Encl GCpi=0.18 MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 124 lb uplift at joint 5 and 98 lb uplift at joint 3.

6) Semi-rigid pitchbreaks including heels Member end fixity model was used in the analysis and design of this truss

7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code

8) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.

9) Truss Design Engineer: Julius Lee, PE, Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**LOAD CASE(S)** Standard

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.



January 15, 2014

**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Oroville Drive, Madison, WI 53719

Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach FL 33435

|               |               |                    |          |          |  |          |
|---------------|---------------|--------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>CJ05 | Truss Type<br>JACK | Qty<br>8 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716415 |
|---------------|---------------|--------------------|----------|----------|--|----------|

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|   |   |   |  |  |
|---|---|---|--|--|
| <b>LOADING (psf)</b><br>TCDL 20.0<br>TCDL 7.0<br>BCLL 0.0 *<br>BCDL 5.0 | <b>SPACING</b> 2-0-0<br>Plates Increase 1.25<br>Lumber Increase 1.25<br>Rep Stress Incr YES<br>Code FBC2010/TP12007 | <b>CSI</b><br>TC 0 11<br>BC 0.01<br>WB 0.00<br>(Matrix-M) | <b>DEFL</b> in (loc) l/defl L/d<br>Vert(LL) -0.00 5 >999 240<br>Vert(TL) -0.00 5 >999 180<br>Horz(TL) 0.00 2 n/a n/a | <b>PLATES</b> <b>GRIP</b><br>MT20 244/190<br>Weight: 6 lb FT = 20% |
|---|---|---|--|--|

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

**REACTIONS** (lb/size) 2=118/0-3-8 (min 0-1-8) 3=7/Mechanical  
 Max Horz 2=37(LC 8)  
 Max Uplift 2=130(LC 8) 3=-4(LC 12)  
 Max Grav 2=144(LC 2) 3=19(LC 3)

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

**NOTES** (7-9)  
 1) Wind ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph TCDL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C, Encl. GCpi=0.18, MWFRS (envelope) gable end zone and C-C Exterior(2) zone porch left and right exposed C-C for members and forces & MWFRS for reactions shown Lumber DOL=1.60 plate grip DOL=1.60  
 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members  
 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 2 and 4 lb uplift at joint 3  
 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss  
 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.  
 8) Note Visually graded lumber designation SPp, represents new lumber design values as per SPIB.  
 9) Truss Design Engineer Julius Lee, PE, Florida P E License No. 34869, Address 1109 Coastal Bay Blvd, Boynton Beach FL 33435

**LOAD CASE(S)** Standard

**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 1-3-0 oc purlins  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

January 15, 2014



**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 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.  
 Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB 89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Julius Lee PE  
 1109 Coastal Bay  
 Boynton Beach, FL 33435

|               |               |                               |          |          |  |          |
|---------------|---------------|-------------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>CJ07 | Truss Type<br>Jack-Open Truss | Qty<br>4 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716417 |
|---------------|---------------|-------------------------------|----------|----------|--|----------|

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|               |                      |            |                            |                        |
|---------------|----------------------|------------|----------------------------|------------------------|
| LOADING (psf) | SPACING 2-0-0        | CSI        | DEFL in (loc) l/defl L/d   | PLATES GRIP            |
| TCLL 20.0     | Plates Increase 1.25 | TC 0.27    | Vert(LL) 0.08 4-7 >756 240 | MT20 244/190           |
| TCDL 7.0      | Lumber Increase 1.25 | BC 0.25    | Vert(TL) 0.07 4-7 >880 180 |                        |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.00    | Horz(TL) -0.00 2 n/a n/a   |                        |
| BCDL 5.0      | Code FBC2010/TP12007 | (Matrix-M) |                            | Weight: 17 lb FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

**REACTIONS** (lb/size) 3=80/Mechanical, 2=217/0-3-8 (min. 0-1-8) 4=29/Mechanical

Max Horz 2=84(LC 8)

Max Uplift 3=82(LC 8) 2=243(LC 8) 4=43(LC 8)

Max Grav 3=97(LC 2) 2=259(LC 2) 4=57(LC 3)

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

TOP CHORD 2-3=-394/779

BOT CHORD 2-4=-869/430

**NOTES** (7-9)

- 1) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II Exp C, End GCpl=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed, C-C for members and forces & MWFRS for reactions shown Lumber DOL=1.80 plate grip DOL=1.80
- 2) This truss has been designed for a live load of 20.0psf on the bottom chord live load nonconcurrent with any other live loads
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 82 lb uplift at joint 3, 243 lb uplift at joint 2 and 43 lb uplift at joint 4.
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
- 8) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
- 9) Truss Design Engineer Julius Lee PE, Florida P.E. License No. 34869; Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**LOAD CASE(S)** Standard

**BRACING**

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

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.



January 15, 2014

**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCSI1 Building Component Safety Information available from Truss Plate Institute, 583 D'Oroville Drive, Madison, WI 53719

Julius Lee PE  
1109 Coastal Bay  
Boynton Beach, FL 33435

|               |               |                          |          |          |  |          |
|---------------|---------------|--------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>EJ02 | Truss Type<br>MONO TRUSS | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716419 |
|---------------|---------------|--------------------------|----------|----------|--|----------|

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|                                      |                      |            |   |          |            |
|--------------------------------------|----------------------|------------|---|----------|------------|
| Plate Offsets (X,Y) [5-0-3-8,0-4-12] |                      |            |   |          |            |
| LOADING (psf)                        | SPACING 2-0-0        | CSI        | DEFL  | In (loc) | I/defl L/d |
| TCLL 20 0                            | Plates Increase 1.25 | TC 0.20    | Vert(LL) -0.01                                    | 5-6 >999 | 240        |
| TCDL 7 0                             | Lumber Increase 1.25 | BC 0 57    | Vert(TL) -0.03                                    | 5-6 >999 | 180        |
| BCLL 0 0 *                           | Rep Stress Incr NO   | WB 0 51    | Horz(TL) 0 00                                     | 4 n/a    | n/a        |
| BCDL 5 0                             | Code FBC2010/TP12007 | (Matrix-M) |   |          |            |
|                                      |                      |            | PLATES MT20 GRIP 244/190<br>Weight 51 lb FT = 20% |          |            |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x6 SP No.2

WEBS 2x4 SP No.3

**REACTIONS** (lb/size) 6=1501/0-5-8 (min. 0-1 15) 4=1071/Mechanical

Max Horz 6=148(LC 5)

Max Uplift 6=314(LC 4) 4=394(LC 8)

Max Grav 6=1622(LC 2) 4=1181(LC 2)

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

TOP CHORD 1-2=680/128, 1-6=990/187

BOT CHORD 5-8=170/503, 4-8=170/503

WEBS 1-5=194/724, 2-5=324/1207 2-4=1066/359

**NOTES** (9-11)

- 1) Wind ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II Exp C, Encl GCpi=0.18, MWFRS (envelope) end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
- 4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi
- 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 314 lb uplift at joint 6 and 394 lb uplift at joint 4.
- 6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1241 lb down and 280 lb up at 1-0-12, and 1241 lb down and 280 lb up at 3-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)
- 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code
- 10) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.
- 11) Truss Design Engineer: Julius Lee, PE; Florida P.E. License No. 34869. Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**LOAD CASE(S)** Standard

1) Regular: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 4-6=-10 1-3=-44

Concentrated Loads (lb)

Vert: 7=-1159(B) 8=-1159(B)

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-0-0 oc purlins except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

January 15, 2014

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

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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach FL 33435

|               |               |                                  |          |          |  |          |
|---------------|---------------|----------------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>EJ04 | Truss Type<br>Jack-Partial Truss | Qty<br>2 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716421 |
|---------------|---------------|----------------------------------|----------|----------|--|----------|

Builders FirstSource    Lake City FL 32055
7.350 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:24:03 2014 Page 1

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|               |                         |            |  |                           |
|---------------|-------------------------|------------|--|---------------------------|
| LOADING (psf) | SPACING    2-0-0        | CSI        | DEFL    in    (loc)    l/defl    L/d   | PLATES    GRIP            |
| TCLL    20.0  | Plates Increase    1.25 | TC    0.11 | Vert(LL)    0.01    4-7    >999    240 | MT20    244/190           |
| TCDL    7.0   | Lumber Increase    1.25 | BC    0.08 | Vert(TL)    0.01    4-7    >999    180 |                           |
| BCLL    0.0 * | Rep Stress Incr    YES  | WB    0.00 | Horz(TL)    -0.00    2    n/a    n/a   |                           |
| BCDL    5.0   | Code FBC2010/TPI2007    | (Matrix-M) |  | Weight: 11 lb    FT = 20% |

**LUMBER**

TOP CHORD    2x4 SP No.2

BOT CHORD    2x4 SP No.2

**REACTIONS** (lb/size)    3=44/Mechanical    2=154/0-3-8 (min. 0-1-8), 4=19/Mechanical

Max Horz 2=58(LC 8)

Max Uplift 3=-46(LC 8), 2=-179(LC 8)    4=-28(LC 8)

Max Grav 3=53(LC 2)    2=186(LC 2)    4=34(LC 3)

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

**NOTES**    (7-9)

1) Wind: ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft, Cat. II    Exp C, Encl    GCpl=0.18, MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left and right exposed C-C for members and forces & MWFRS for reactions shown. Lumber DOL=1.60 plate grip DOL=1.60

2) This truss has been designed for a live load of 20.0psf on the bottom chord live load nonconcurrent with any other live loads

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

4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 3    179 lb uplift at joint 2 and 26 lb uplift at joint 4.

6) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

7) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code

8) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.

9) Truss Design Engineer: Julius Lee    PE, Florida P.E. License No. 34869    Address: 1109 Coastal Bay Blvd, Boynton Beach, FL 33435

**LOAD CASE(S)**    Standard

**BRACING**

TOP CHORD    Structural wood sheathing directly applied or 3-0-0 oc purlins

BOT CHORD    Rigid ceiling directly applied or 10-0-0 oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection. In accordance with Stabilizer Installation guide.

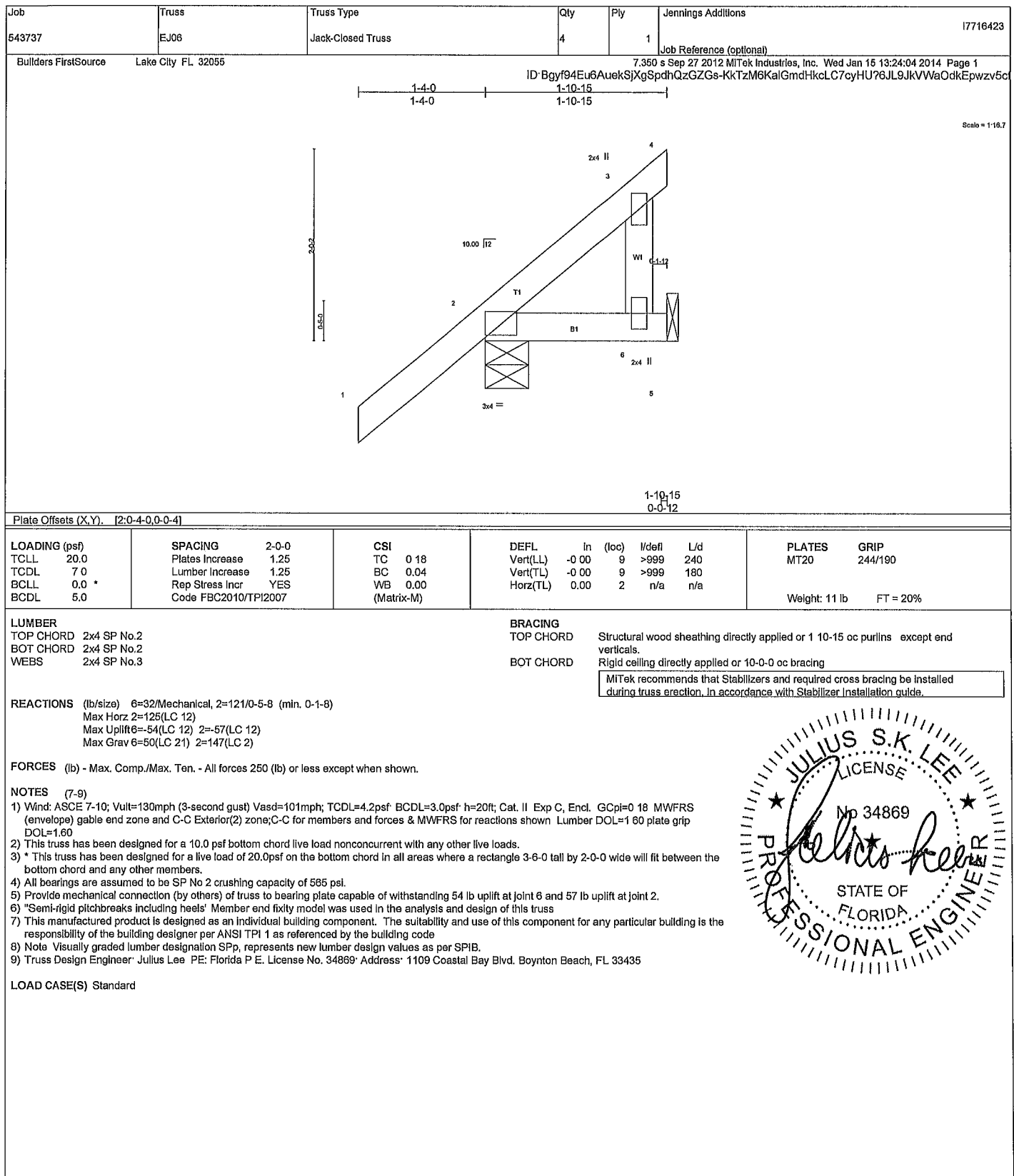
January 15,2014



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

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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach, FL 33435



January 15, 2014

|               |               |                                   |          |          |  |          |
|---------------|---------------|-----------------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>HJ01 | Truss Type<br>Diagonal Hip Girder | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716425 |
|---------------|---------------|-----------------------------------|----------|----------|--|----------|

Builders FirstSource Lake City FL 32055
7.350 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:24:06 2014 Page 1

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Scale = 1:38.6

|               |                      |            |                             |               |          |
|---------------|----------------------|------------|-----------------------------|---------------|----------|
| LOADING (psf) | SPACING              | CSI        | DEFL                        | PLATES        | GRIP     |
| TCLL 20.0     | 2-0-0                | TC 0.33    | in (loc) l/defl L/d         | MT20          | 244/190  |
| TCCL 7.0      | Plates Increase 1.25 | BC 0.28    | Vert(LL) 0.03 6-7 >999 240  |               |          |
| BCLL 0.0 *    | Lumber Increase 1.25 | WB 0.17    | Vert(TL) -0.02 6-7 >999 180 |               |          |
| BCDL 5.0      | Rep Stress Incr NO   | (Matrix-M) | Horz(TL) -0.01 4 n/a n/a    |               |          |
|               | Code FBC2010/TPI2007 |            |                             | Weight: 49 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.3

**REACTIONS** (lb/size) 8=239/0-7 12 (min 0-1-8) 4=68/Mechanical 5=97/Mechanical

Max Horz 8=210(LC 8)

Max Uplift 8=540(LC 6) 4=108(LC 8) 5=420(LC 8)

Max Grav 8=297(LC 2) 4=82(LC 2) 5=119(LC 3)

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

TOP CHORD 2-8=-298/410, 2-9=-126/344

BOT CHORD 7 12=-342/79, 8-12=-342/79

WEBS 2-7=-310/122, 3-6=-135/584

**NOTES** (9-11)

1) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II Exp C, Encl. GCpl=0.18, MWFRS (envelope) gable end zone; end vertical left exposed Lumber DOL=1.60 plate grip DOL=1.60

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

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

4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi

5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 540 lb uplift at joint 8, 108 lb uplift at joint 4 and 420 lb uplift at joint 5.

6) 'Semi-rigid pitchbreaks including heels Member end fixity model was used in the analysis and design of this truss

7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 157 lb up at 1-5-12, 157 lb up at 1-5-12, and 2 lb down and 176 lb up at 4-3-11, and 2 lb down and 176 lb up at 4-3-11 on top chord and 134 lb up at 1-5-12, 134 lb up at 1-5-12 and 10 lb down and 71 lb up at 4-3-11 and 10 lb down and 71 lb up at 4-3-11 on bottom chord The design/selection of such connection device(s) is the responsibility of others

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

9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code

10) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.

11) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd Boynton Beach, FL 33435

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals

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

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

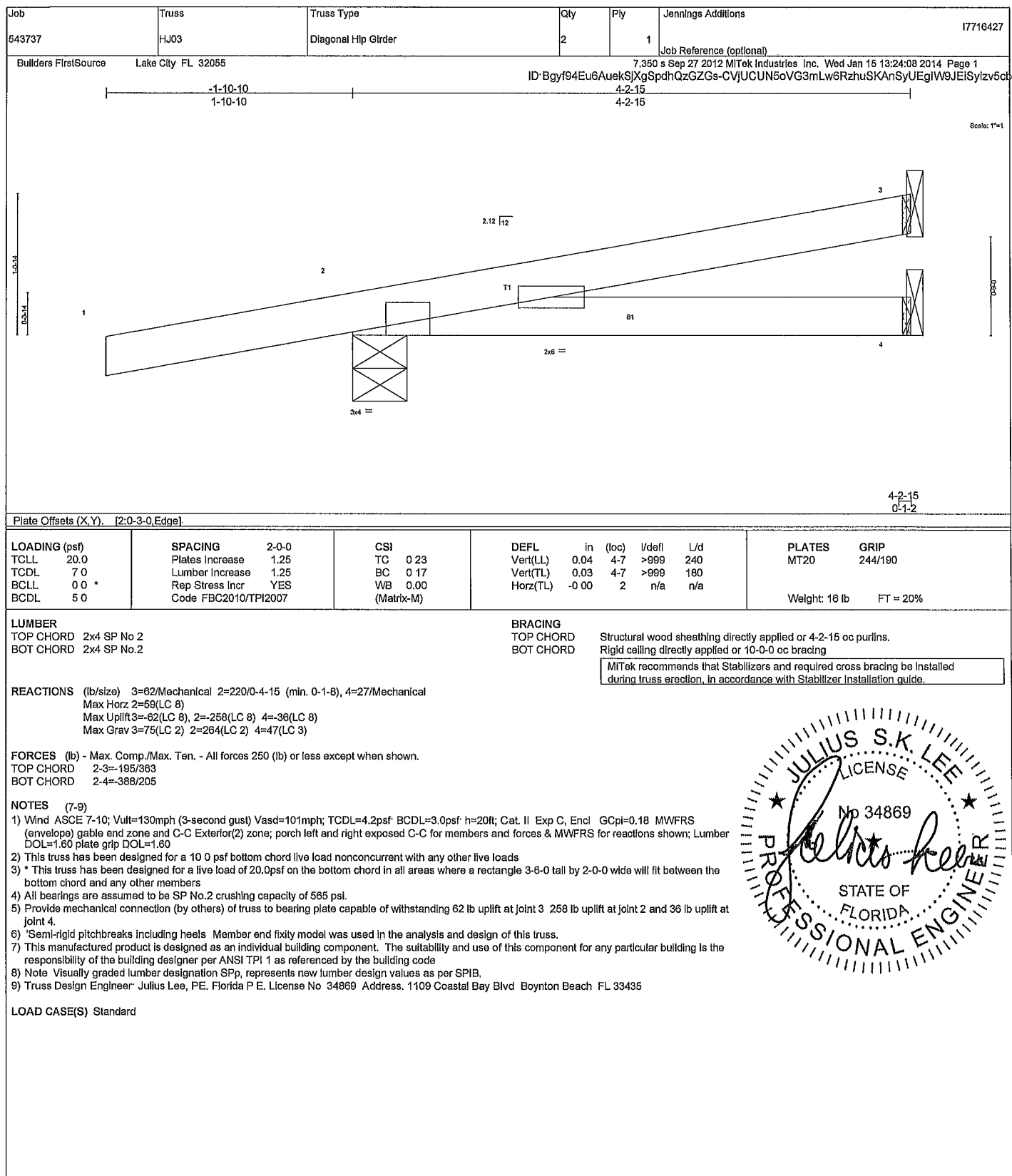
January 15, 2014

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Julius Lee PE  
1109 Coastal Bay  
Boynton Beach FL 33435





January 15, 2014



|               |               |                     |           |          |  |          |
|---------------|---------------|---------------------|-----------|----------|--|----------|
| Job<br>543737 | Truss<br>PB01 | Truss Type<br>GABLE | Qty<br>12 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716429 |
|---------------|---------------|---------------------|-----------|----------|--|----------|

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19-0-0  
9-6-0

Scale = 1:45.7

|  |                      |       |          |                         |                        |
|--|----------------------|-------|----------|-------------------------|------------------------|
| Plate Offsets (X,Y) [2:0-2-1,0-1-8], [8:0-2-1,0-1-8] |                      |       |          |                         |                        |
| LOADING (psf)  | SPACING              | 2-0-0 | CSI      | DEFL                    | PLATES GRIP            |
| TCLL 20.0  | Plates Increase      | 1.25  | TC 0.22  | in (loc) l/defl L/d     | MT20 244/190           |
| TCDL 7.0   | Lumber Increase      | 1.25  | BC 0.11  | Vert(LL) 0.00 9 n/r 120 |                        |
| BCLL 0.0 *   | Rep Stress Incr      | YES   | WB 0.27  | Vert(TL) 0.00 9 n/r 120 |                        |
| BCDL 5.0   | Code FBC2010/TPI2007 |       | (Matrix) | Horz(TL) 0.01 8 n/a n/a |                        |
|  |                      |       |          |                         | Weight. 99 lb FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD

BOT CHORD

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

Rigid ceiling directly applied or 10'-0" oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS** All bearings 17-8-9.

(lb) Max Horz 2=197(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 2 12 8 except 10=192(LC 13) 11=134(LC 13)

15=192(LC 12), 14=136(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 2 12, 8 except 10=343(LC 22), 11=334(LC 22)

22) 15=343(LC 21) 14=336(LC 21)

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

**WEBS** 5-12=258/209, 7-10=386/296, 6-11=303/223, 3-15=386/296, 4-14=303/224

**NOTES** (13-15)

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

2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II Exp C Encl GCpl=0.18 MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only For studs exposed to wind (normal to the face) see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1

4) All plates are 2x4 MT20 unless otherwise indicated

5) Gable requires continuous bottom chord bearing

6) Gable studs spaced at 4'-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" tall by 2'-0" wide will fit between the bottom chord and any other members with BCDL = 5.0psf

9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 12, 8 except (j=lb) 10=192 11=134, 15=192, 14=136.

11) \*Semi-rigid pitchbreaks including heels Member end fixity model was used in the analysis and design of this truss

12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable or consult qualified building designer

13) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code

14) Note Visually graded lumber designation SPp, represents new lumber design values as per SPIB.

15) Truss Design Engineer: Julius Lee PE: Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd Boynton Beach, FL 33435

**LOAD CASE(S)** Standard



January 15,2014

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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.  
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Julius Lee PE  
1109 Coastal Bay  
Boynton Beach FL 33435

|               |               |                     |          |          |  |          |
|---------------|---------------|---------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>PB03 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716431 |
|---------------|---------------|---------------------|----------|----------|--|----------|

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Scale = 1:32.5

|   |                      |       |          |                          |                        |
|---|----------------------|-------|----------|--------------------------|------------------------|
| Plate Offsets (X,Y) [2:0-2-1,0-1-8], [4:0-2-0,0-1-13], [8:0-2-0,0-1-13], [10:0-2-1,0-1-8] |                      |       |          |                          |                        |
| LOADING (psf)   | SPACING              | 2-0-0 | CSI      | DEFL                     | PLATES GRIP            |
| TCLL 20.0   | Plates Increase      | 1.25  | TC 0.13  | in (loc) l/defi L/d      | MT20 244/190           |
| TCDL 7.0  | Lumber Increase      | 1.25  | BC 0.11  | Vert(LL) 0.00 11 n/r 120 |                        |
| BCLL 0.0 *  | Rep Stress Incr      | YES   | WB 0.07  | Vert(TL) 0.00 11 n/r 120 |                        |
| BCDL 5.0  | Code FBC2010/TPI2007 |       | (Matrix) | Horz(TL) 0.00 10 n/a n/a |                        |
|   |                      |       |          |                          | Weight: 87 lb FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

OTHERS 2x4 SP No.3

**REACTIONS** All bearings 17-8-9.

(lb) - Max Horz 2=-123(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 2 14 13, 16, 10 except 12=-149(LC 13)

17=-151(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 2 14, 13, 16, 10 except 12=298(LC 22)

17=301(LC 21)

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

**WEBS** 9-12=-307/228, 3-17=-307/228

**NOTES** (14-16)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph TCCL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C End GCpl=0.18, MWFRS (envelope) and C-C Exterior(2) zone C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only For studs exposed to wind (normal to the face) see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1
- 4) Provide adequate drainage to prevent water ponding
- 5) All plates are 2x4 MT20 unless otherwise indicated
- 6) Gable requires continuous bottom chord bearing
- 7) Gable studs spaced at 4'-0" oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20 Opsf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members, with BCDL = 5.0psf
- 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psf.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 14, 13, 16, 10 except (it=lb) 12=149, 17=151
- 12) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss
- 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer
- 14) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
- 15) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
- 16) Truss Design Engineer: Julius Lee, PE: Florida P E License No. 34869: Address 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**LOAD CASE(S)** Standard

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins

BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.



January 15, 2014

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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach FL 33435

|               |               |                     |          |          |  |          |
|---------------|---------------|---------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>PB05 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17718433 |
|---------------|---------------|---------------------|----------|----------|--|----------|

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Scale = 1/32.0

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
| Plate Offsets (X,Y): [2:0-2-1,0-1-8], [3:0-2-0,0-1-13], [11:0-2-1,0-1-8] |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|

|   |   |   |   |  |
|---|---|---|---|--|
| <b>LOADING (psf)</b><br>TCLL 20.0<br>TCDL 7.0<br>BCLL 0.0 *<br>BCDL 5.0 | <b>SPACING</b> 2-0-0<br>Plates Increase 1.25<br>Lumber Increase 1.25<br>Rep Stress Incr YES<br>Code FBC2010/TPI2007 | <b>CSI</b><br>TC 0.13<br>BC 0.09<br>WB 0.06<br>(Matrix) | <b>DEFL</b> in (loc) l/defl L/d<br>Vert(LL) 0.00 12 n/r 120<br>Vert(TL) 0.00 12 n/r 120<br>Horz(TL) 0.00 11 n/a n/a | <b>PLATES</b> GRIP<br>MT20 244/190<br>Weight: 74 lb FT = 20% |
|---|---|---|---|--|

**LUMBER**

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

**REACTIONS** All bearings 17-8-9.  
 (lb) - Max Horz 2=-89(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 17 16, 20 19 11 15 except 13=-173(LC 13) 14=-118(LC 22)  
 Max Grav All reactions 250 lb or less at joint(s) 2 17 16, 19 11 15, 14 except 13=303(LC 22), 20=250(LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown  
 WEBS 10-13=-266/200

**NOTES** (14-16)  
 1) Unbalanced roof live loads have been considered for this design  
 2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft, Cat. II Exp C; Encl GCpl=0.18, MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 3) Truss designed for wind loads in the plane of the truss only For studs exposed to wind (normal to the face) see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1  
 4) Provide adequate drainage to prevent water ponding  
 5) All plates are 2x4 MT20 unless otherwise indicated  
 6) Gable requires continuous bottom chord bearing.  
 7) Gable studs spaced at 4'-0" oc.  
 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads  
 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members.  
 10) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 17 16 20, 19 11 15 except (l=lb) 13=173, 14=118.  
 12) Semi-rigid pitchbreaks including heels' Member end fixity model was used in the analysis and design of this truss  
 13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer  
 14) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code  
 15) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
 16) Truss Design Engineer: Julius Lee PE: Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**BRACING**  
 TOP CHORD  
 BOT CHORD

Structural wood sheathing directly applied or 6'-0" oc purlins.  
 Rigid ceiling directly applied or 10'-0" oc bracing

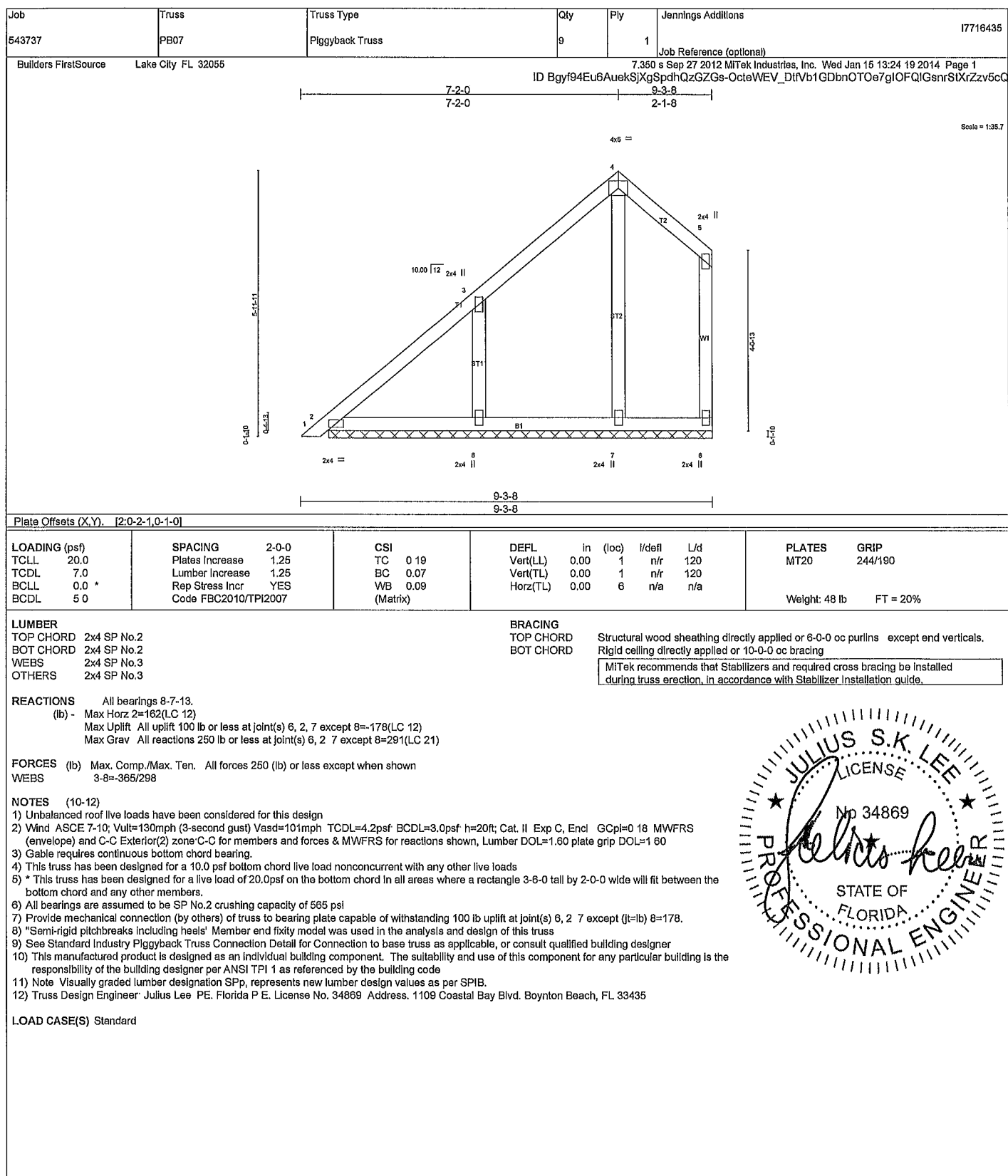
Mitek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.



January 15, 2014

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Julius Lee PE  
 1109 Coastal Bay  
 Boynton Beach FL 33435

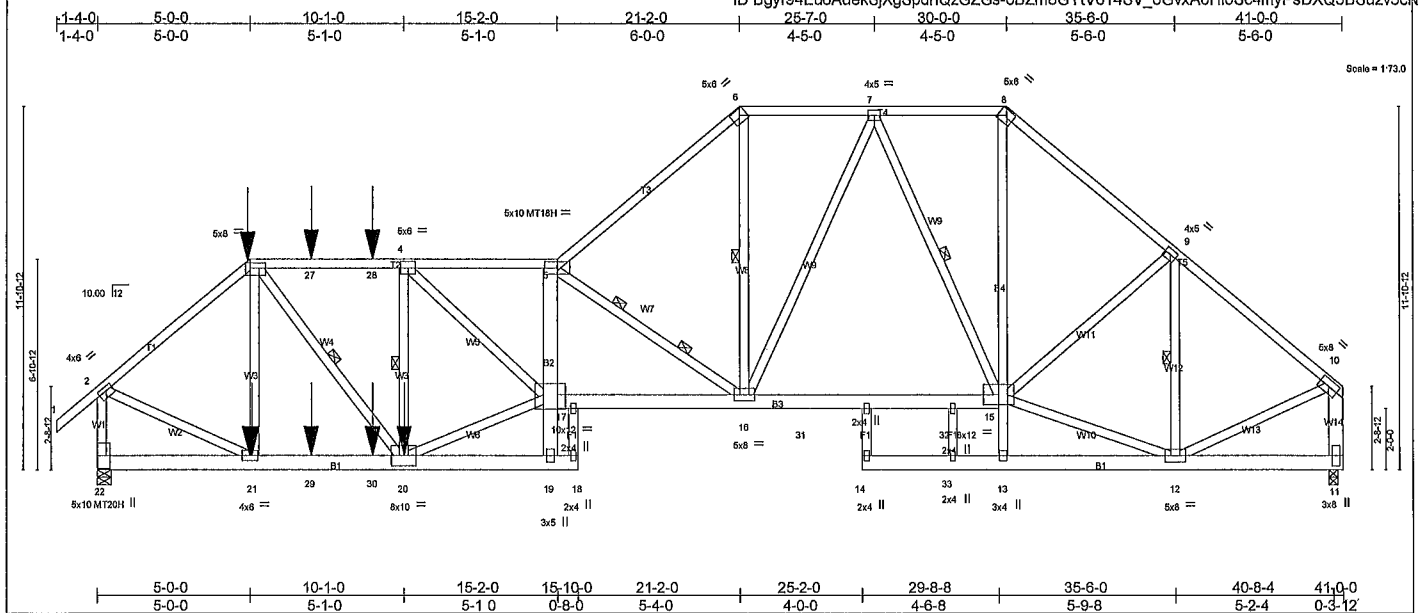


January 15, 2014

|               |              |                                    |          |          |  |          |
|---------------|--------------|------------------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T01 | Truss Type<br>Piggyback Base Truss | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716437 |
|---------------|--------------|------------------------------------|----------|----------|--|----------|

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|               |                      |       |            |          |       |       |        |     |                |          |
|---------------|----------------------|-------|------------|----------|-------|-------|--------|-----|----------------|----------|
| LOADING (psf) | SPACING              | 2-0-0 | CSI        | DEFL     | in    | (loc) | l/defl | L/d | PLATES         | GRIP     |
| TCLL 20.0     | Plates Increase      | 1.25  | TC 0.84    | Vert(LL) | -0.44 | 14    | >999   | 240 | MT20           | 244/190  |
| TCDL 7.0      | Lumber Increase      | 1.25  | BC 0.92    | Vert(TL) | -0.80 | 14    | >612   | 180 | MT20H          | 187/143  |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.97    | Horz(TL) | 0.27  | 11    | n/a    | n/a | MT18H          | 244/190  |
| BCDL 5.0      | Code FBC2010/TPI2007 |       | (Matrix-M) |          |       |       |        |     | Weight: 374 lb | FT = 20% |

|   |  |
|---|--|
| LUMBER  | BRACING  |
| TOP CHORD 2x4 SP No.2 *Except*<br>T3. 2x4 SP M 31                 | TOP CHORD Structural wood sheathing directly applied or 2-0-5 oc purlins, except end verticals         |
| BOT CHORD 2x6 SP No.2 *Except*<br>B3: 2x6 SP SS, B4 2x4 SP No.3   | BOT CHORD Rigid ceiling directly applied or 5-3-3 oc bracing. Except:<br>10-0-0 oc bracing 17 19 13-15 |
| WEBS 2x4 SP No.3 *Except*<br>W6 W5: 2x4 SP No.2, W14. 2x6 SP No.2 | WEBS 1 Row at midpt 3-20 4-20, 6-16 7 15, 9-12<br>2 Rows at 1/3 pts 5-16                               |
|   | JOINTS 1 Brace at Jt(s) 15   |

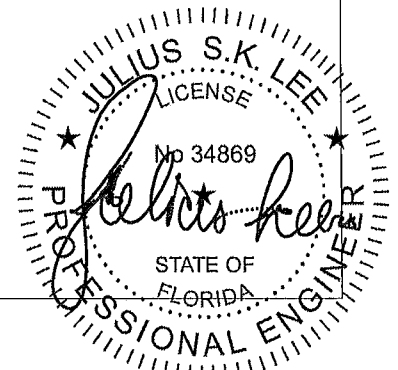
MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

|                                       |  |
|---------------------------------------|--|
| REACTIONS (lb/size)                   | 22=2460/0-5-8 (min 0-3-4) 11=1848/0-3-8 (min. 0-2-5) |
| Max Horz 22=305(LC 5)                 |  |
| Max Uplift 22=1712(LC 8) 11=620(LC 9) |  |
| Max Grav 22=2735(LC 2), 11=1986(LC 2) |  |

|  |  |
|--|--|
| FORCES (lb) - Max. Comp./Max. Ten - All forces 250 (lb) or less except when shown  |  |
| TOP CHORD 2-3=-2562/1678, 3-27=-3387/1867 27-28=-3387/1867 4-28=-3387/1867 4-5=-5368/2508, 5-6=-3371/1360, 6-7=-2575/1145, 7-8=-1913/749, 8-9=-2565/916, 9-10=-1914/627 2-22=-2714/1726, 10-11=-1945/630                       |  |
| BOT CHORD 21-22=-292/286, 21-29=-1358/1877 29-30=-1358/1877 20-30=-1358/1877 19-20=-158/336, 5-17=-890/0, 16-17=-2534/5438 16-31=-815/2292 31-32=-815/2292 15-32=-815/2292, 13-15=-508/1314                                    |  |
| WEBS 3-21=-685/29 3-20=-851/2457 4-20=-2152/971 17 20=-1844/3341 4-17=-880/2658, 5-16=-3543/1958, 6-16=-714/1747 7-16=-470/749 7 15=-999/564, 9-15=-299/718, 12-15=-443/1544, 9-12=-1142/374, 2-21=-1315/2088, 10-12=-451/1505 |  |

- NOTES (12-14)
- Unbalanced roof live loads have been considered for this design
  - Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C Encl GCpi=0.18 MWFRS (envelope) end vertical left exposed; Lumber DOL=1 60 plate grip DOL=1 60
  - Provide adequate drainage to prevent water ponding
  - All plates are MT20 plates unless otherwise indicated.
  - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
  - \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members with BCDL = 5.0psf
  - All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (l=lb) 22=1712 11=620.
  - 'Semi-rigid pitchbreaks including heels' Member end fixity model was used in the analysis and design of this truss
  - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 92 lb down and 208 lb up at 5-0-0, and 92 lb down and 208 lb up at 7-0-12, and 92 lb down and 208 lb up at 9-0-12 on top chord, and 126 lb down and 514 lb up at 5-0-0, 37 lb down and 84 lb up at 7-0-12 and 37 lb down and 84 lb up at 9-0-12 and 1151 lb down and 404 lb up at 10-1-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)

Continued on page 2



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|   |   |
|---|---|
| <p><b>WARNING</b> Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 BEFORE USE.</p> <p>Design valid for use only with Mitek connectors. This design is based only upon parameters shown, and is for an individual building component. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB 89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719</p> | <p>Julius Lee PE.<br/>1109 Coastal Bay<br/>Boynton Beach FL 33435</p> |
|---|---|



|               |              |                                    |          |          |  |          |
|---------------|--------------|------------------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T03 | Truss Type<br>Piggyback Base Truss | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716439 |
|---------------|--------------|------------------------------------|----------|----------|--|----------|

Builders FirstSource, Lake City FL 32055

7,350 s Sep 27 2012 MITEK Industries, Inc. Wed Jan 15 13:24:26 2014 Page 1  
ID Bgyf94Eu6AuekSjXgSpdhQzGZGs-gzoH\_ebNZ1XVw6lZVI06A7wjzDQXuGJpS23Pbfzv5c.

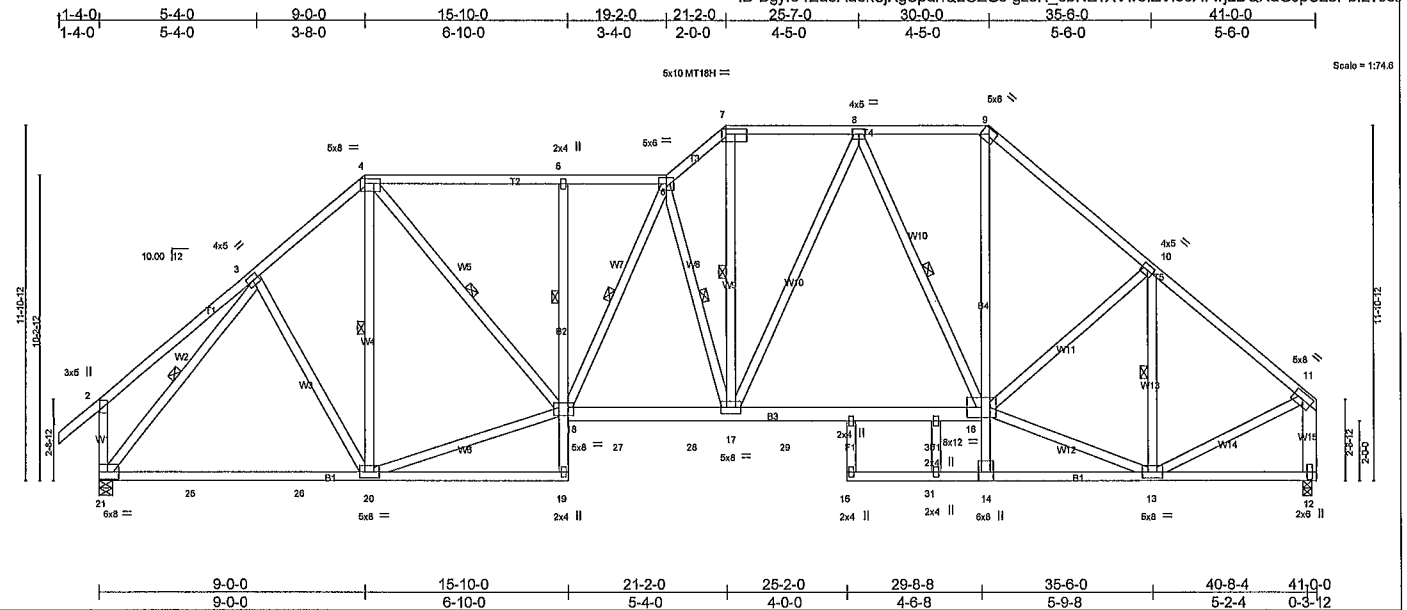


Plate Offsets (X,Y) [4.0-6.4,0-2-0], [7.0-8.4,0-2-0], [9.0-3.0,0-2-1], [18.0-2.4,0-3-4]

|               |                      |       |            |          |          |        |      |                |          |
|---------------|----------------------|-------|------------|----------|----------|--------|------|----------------|----------|
| LOADING (psf) | SPACING              | 2-0-0 | CSI        | DEFL     | in (loc) | I/defl | L/d  | PLATES         | GRIP     |
| TCLL 20.0     | Plates Increase      | 1.25  | TC 0.80    | Vert(LL) | -0.75    | 15     | >649 | MT20           | 244/190  |
| TCDL 7.0      | Lumber Increase      | 1.25  | BC 1.00    | Vert(TL) | 1.16     | 15     | >420 | MT18H          | 244/190  |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.75    | Horz(TL) | 0.16     | 12     | n/a  |                |          |
| BCDL 5.0      | Code FBC2010/TPI2007 |       | (Matrix-M) |          |          |        |      | Weight: 366 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.1 \*Except\*  
B2: 2x4 SP No.3, B3: 2x6 SP No.2, B4: 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\*  
W15: 2x6 SP No.2

**BRACING**  
TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except.  
1 Row at midpt 5-18  
8-2-0 oc bracing 16-17  
10-0-0 oc bracing 14-16  
WEBS 1 Row at midpt 4-20 4-18, 6-18 6-17 7-17 8-16, 10-13, 3-21  
JOINTS 1 Brace at Jt(s). 16

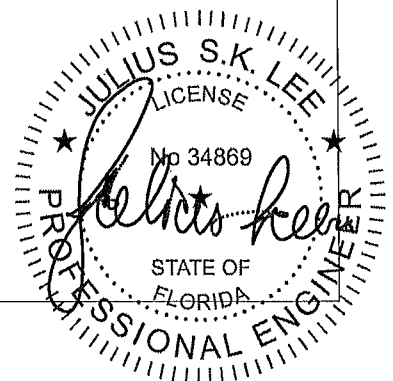
MITEK recommends that Stabilizers and required cross bracing be installed during truss erection in accordance with Stabilizer Installation guide.

**REACTIONS** (lb/size) 12=1590/0-3-8 (min 0-2-9) 21=1561/0-5-8 (min. 0-2-8)  
Max Horz 21=307(LC 9)  
Max Uplift 12=336(LC 13) 21=410(LC 12)  
Max Grav 12=1651(LC 2), 21=1588(LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-344/297 3-4=-2082/994 4-5=-2705/1286 5-6=-2701/1282 6-7=-3323/1523 7-8=-2619/1234,  
8-9=-2193/1020, 9-10=-2833/1206, 10-11=-2052/851 2-21=-465/334 11 12=-2134/879  
BOT CHORD 21-25=-528/1303, 25-26=-528/1303, 20-26=-528/1303 5-18=-363/274, 18-27=-1023/2756  
27-28=-1023/2756, 17-28=-1023/2756, 17-29=-745/2192 29-30=-745/2192 16-30=-745/2192,  
9-16=-572/1444  
WEBS 3-20=-117/266, 4-20=-406/149 18-20=-470/1360, 4-18=-722/1755, 6-18=-871/217  
6-17=-1629/855, 7-17=-822/1877 8-17=-161/400, 8-16=-643/362 13-16=-595/1787  
10-16=-161/639, 10-13=-1307/495 11 13=-583/1575, 3-21=-2044/728

**NOTES** (11-13)  
1) Unbalanced roof live loads have been considered for this design  
2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph, TCDL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C, Encl GCp=0.18, MWFRS (envelope) and C-C Exterior(2) zone end vertical left exposed C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip  
DOL=1.60  
3) Provide adequate drainage to prevent water ponding.  
4) All plates are MT20 plates unless otherwise indicated  
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads  
6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 5.0psf  
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (Jt=lb) 12=336, 21=410.  
9) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.  
10) In the LOAD CASE(S) section loads applied to the face of the truss are noted as front (F) or back (B)  
11) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.  
12) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
13) Truss Design Engineer Julius Lee, PE: Florida P.E. License No 34869 Address 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

Continued on page 2



January 15, 2014

**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.  
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Applicability of design parameters and proper incorporation of component is responsibility of building designer not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Julius Lee PE  
1109 Coastal Bay  
Boynton Beach, FL 33435



|               |              |                         |          |          |  |          |
|---------------|--------------|-------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T04 | Truss Type<br>Hip Truss | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716440 |
|---------------|--------------|-------------------------|----------|----------|--|----------|

Builders FirstSource, Lake City FL 32055

7.350 s Sep 27 2012 MITek Industries Inc. Wed Jan 15 13:24:29 2014 Page 1

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Scale = 1/32.0

|                     |   |
|---------------------|---|
| Plate Offsets (X,Y) | [2.0-2.14,0-2.0], [5.0-8.4,0-2.0], [7.0-3.0,0-3.0], [9.0-6.4,0-2.0] |
|---------------------|---|

|               |                      |       |            |          |             |        |     |                |          |
|---------------|----------------------|-------|------------|----------|-------------|--------|-----|----------------|----------|
| LOADING (psf) | SPACING              | 2-0-0 | CSI        | DEFL     | in (loc)    | I/defl | L/d | PLATES         | GRIP     |
| TCLL 20.0     | Plates Increase      | 1 25  | TC 0.70    | Vert(LL) | 0.31 16-17  | >999   | 240 | MT20           | 244/190  |
| TCDL 7.0      | Lumber Increase      | 1 25  | BC 0.84    | Vert(TL) | -0.65 16-17 | >882   | 180 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.56    | Horz(TL) | 0.14 12     | n/a    | n/a |                |          |
| BCDL 5.0      | Code FBC2010/TPI2007 |       | (Matrix-M) |          |             |        |     |                |          |
|               |                      |       |            |          |             |        |     | Weight: 355 lb | FT = 20% |

|  |  |
|--|--|
| <b>LUMBER</b><br>TOP CHORD 2x4 SP No.2<br>BOT CHORD 2x4 SP No.2 *Except*<br>B2: 2x4 SP No.3, B3 2x6 SP SS<br>WEBS 2x4 SP No.3 *Except*<br>W10: 2x6 SP No.2 | <b>BRACING</b><br>TOP CHORD Structural wood sheathing directly applied or 3-1 13 oc purlins, except end verticals.<br>BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:<br>1 Row at midpt 6-17 8-16<br>1 Row at midpt 5-19 5-17 7-17 7-16, 9-16, 9-14<br><div style="border: 1px solid black; padding: 2px; margin-top: 5px;">           MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.         </div> |
|--|--|

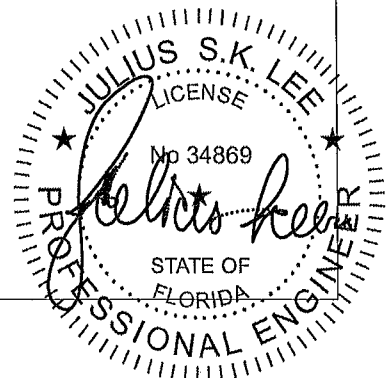
**REACTIONS** (lb/size) 21=1564/0-5-8 (min 0-2-9) 12=1498/0-3-8 (min 0-2-7)  
 Max Horz 21=308(LC 9)  
 Max Uplift 21=371(LC 12) 12=345(LC 13)  
 Max Grav 21=1669(LC 2) 12=1588(LC 2)

**FORCES** (lb) Max. Comp./Max. Ten All forces 250 (lb) or less except when shown  
 TOP CHORD 2-3=-1974/870 3-4=-1843/886, 4-5=-2162/1084 5-6=-2423/1241 6-7=-2436/1244, 7-8=-2430/1238, 8-9=-2417/1234, 9-10=-2151/1072 10-11=-1933/845, 2-21=-2132/966, 11-12=-2036/879  
 BOT CHORD 20-21=-288/276, 20-22=-581/1411 19-22=-581/1411 6-17=-271/195, 17-23=-871/2238, 23-24=-871/2238, 16-24=-871/2238, 8-16=-271/196, 14-25=-553/1386, 13-25=-553/1386  
 WEBS 4-20=-558/280 5-19=-603/178, 17-19=-578/1667 5-17=-734/1769, 14-16=-566/1656 9-16=-743/1778, 9-14=-608/270 10-13=-565/307 11-13=-591/1507 2-20=-547/1539

**NOTES** (10-12)  
 1) Unbalanced roof live loads have been considered for this design  
 2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph TCCL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C End GCpi=0.18, MWFRS (envelope) and C-C Exterior(2) zone end vertical left exposed C-C for members and forces & MWFRS for reactions shown Lumber DOL=1.60 plate grip DOL=1.60  
 3) Provide adequate drainage to prevent water ponding  
 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 5.0psf  
 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (j=ib) 21=371 12=345.  
 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss  
 9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)  
 10) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.  
 11) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
 12) Truss Design Engineer: Julius Lee, PE: Florida P. E. License No. 34869 Address: 1109 Coastal Bay Blvd Boynton Beach, FL 33435

**LOAD CASE(S)** Standard

Continued on page 2



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**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MI-7473 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.  
 Applicability of design parameters and proper incorporation of component is responsibility of building designer not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Julius Lee PE,  
 1109 Coastal Bay  
 Boynton Beach, FL 33435



|               |              |                                    |          |          |  |          |
|---------------|--------------|------------------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T06 | Truss Type<br>Piggyback Base Truss | Qty<br>2 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716442 |
|---------------|--------------|------------------------------------|----------|----------|--|----------|

Builders FirstSource Lake City FL 32055 7 350 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:24:33 2014 Page 1  
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Scale = 1:64.9

|   |  |
|---|--|
| Plate Offsets (X,Y): [5:0-3-4,0-2-0], [7:0-3-4,0-2-0] |  |
|---|--|

|               |                      |            |                               |                |          |
|---------------|----------------------|------------|-------------------------------|----------------|----------|
| LOADING (psf) | SPACING              | CSI        | DEFL                          | PLATES         | GRIP     |
| TCLL 20.0     | 2-0-0                | TC 0.45    | in (loc) l/defl L/d           | MT20           | 244/190  |
| TCDL 7.0      | Plates Increase 1.25 | BC 0.29    | Vert(LL) -0.07 12-14 >999 240 |                |          |
| BCLL 0.0 *    | Lumber Increase 1.25 | WB 0.53    | Vert(TL) -0.12 12-14 >999 180 |                |          |
| BCDL 5.0      | Rep Stress Incr YES  | (Matrix-M) | Horz(TL) 0.02 10 n/a n/a      |                |          |
|               | Code FBC2010/TP12007 |            |                               | Weight: 265 lb | FT = 20% |

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

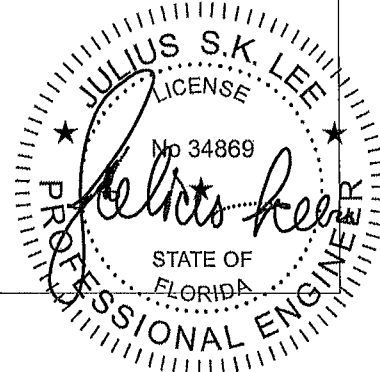
**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 4-5-10 oc purlins except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing  
 WEBS 1 Row at midpt 4-14 6-14, 6-12 8-12

**REACTIONS** (lb/size) 16=1035/0-5-8 (min 0-1-11) 10=970/Mechanical  
 Max Horz 16=311(LC 10)  
 Max Uplift 16=227(LC 12) 10=201(LC 13)  
 Max Grav 16=1048(LC 2) 10=970(LC 1)

**FORCES** (lb) - Max. Comp./Max. Ten. All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=1265/521 3-4=1133/537 4-5=1296/645, 5-6=991/585, 6-7=978/576, 7-8=1279/634, 8-9=1184/486, 2-16=1399/609, 9-10=1306/524  
 BOT CHORD 15-16=287/289 15-17=323/872, 14-17=323/872 14-18=200/769, 13-18=200/769  
 13-19=200/769 12-19=200/769, 12-20=286/821 11-20=286/821  
 WEBS 4-15=317/144, 4-14=262/236, 5-14=211/461 7 12=204/452, 8-11=365/187 2-15=247/920, 9-11=305/904

**NOTES** (9-12)  
 1) Unbalanced roof live loads have been considered for this design  
 2) Wind ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf h=20ft; Cat. II Exp C, End GCpl=0.18 MWFRS (envelope) and C-C Exterior(2) zone; end vertical left exposed C-C for members and forces & MWFRS for reactions shown Lumber DOL=1.60 plate grip DOL=1.60  
 3) Provide adequate drainage to prevent water ponding  
 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 5.0psf  
 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (j=b) 16=227 10=201  
 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss  
 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.  
 10) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
 11) Truss Design Engineer: Julius Lee PE: Florida P.E. License No 34869 Address: 1109 Coastal Bay Blvd Boynton Beach FL 33435  
 12) Use Simpson HTU26 to attach Truss to Carrying member

**LOAD CASE(S)** Standard



January 15, 2014

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Julius Lee PE  
 1109 Coastal Bay  
 Boynton Beach, FL 33435

| Job    | Truss | Truss Type           | Qty | Ply | Jennings Additions |
|--------|-------|----------------------|-----|-----|--------------------|
| 543737 | T07   | Piggyback Base Truss | 3   | 1   | 17716443           |

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7 350 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:24:35 2014 Page 2  
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#### LOAD CASE(S) Standard

1) Regular Lumber Increase=1.25 Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-3=-44 3-5=-44, 5-7=-44, 15-16=-10 13-14=-10, 13-20=-61(F=-51), 20-21=-91(F=-51) 12-21=-61(F=-51) 11-22=-40 10-22=-10, 8-10=-10



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

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Julius Lee PE  
1109 Coastal Bay  
Boynton Beach FL 33435

|               |              |                            |          |          |  |          |
|---------------|--------------|----------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T09 | Truss Type<br>Common Truss | Qty<br>2 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716445 |
|---------------|--------------|----------------------------|----------|----------|--|----------|

Builders FirstSource, Lake City FL 32055

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ID Bgyf94Eu6AuekSjXgSpdhQzGZGs-KGXqVkkvkj2oNyDtCGDwgePoV2dzijVaDvz20yzv5c7

Scale = 1/72.6

|                     |   |
|---------------------|---|
| Plate Offsets (X,Y) | [2,0-1-12,0-1-8], [8,0-1 12,0-1-8], [10,Edge,0-3-8] |
|---------------------|---|

|               |                      |       |            |          |             |        |     |                |          |
|---------------|----------------------|-------|------------|----------|-------------|--------|-----|----------------|----------|
| LOADING (psf) | SPACING              | 2-0-0 | CSI        | DEFL     | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
| TCLL 20.0     | Plates Increase      | 1.25  | TC 0.70    | Vert(LL) | -0.32 11 13 | >906   | 240 | MT20           | 244/190  |
| TCDL 7.0      | Lumber Increase      | 1.25  | BC 0.57    | Vert(TL) | -0.60 11-13 | >489   | 180 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | NO    | WB 0.67    | Horz(TL) | 0.01 10     | n/a    | n/a |                |          |
| BCDL 5.0      | Code FBC2010/TPI2007 |       | (Matrix-M) |          |             |        |     |                |          |
|               |                      |       |            |          |             |        |     | Weight: 198 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x6 SP SS

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

W4. 2x4 SP No.2

**REACTIONS** (lb/size) 14=1147/0-5-8 (min 0-2-0), 10=1147/0-5-8 (min 0-2-0)

Max Horz 14=447(LC 8)

Max Uplift 14=552(LC 12) 10=552(LC 13)

Max Grav 14=1291(LC 21) 10=1295(LC 21)

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

TOP CHORD 2-3=-1780/650, 3-4=-1623/668, 4-5=-1999/1001 5-6=-1984/1001 6-7=-1608/668, 7-8=-1765/650,

2-14=-1848/730 8-10=-1834/730

BOT CHORD 13-14=-440/440, 13-15=-210/831, 12-15=-210/831 12-16=-210/831 11-16=-210/831

WEBS 5-11=-664/1132 6-11=-625/611 5-13=-664/1142 4-13=-625/511 2-13=-330/1291

8-11=-330/1305

**NOTES** (9-11)

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C, Encl. GCpi=0 18 MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1 60 plate grip DOL=1.60
- 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 5.0psf
- 5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (It=lb) 14=552, 10=552.
- 7) Semi-rigid pitchbreaks including heels' Member end fixity model was used in the analysis and design of this truss.
- 8) In the LOAD CASE(S) section loads applied to the face of the truss are noted as front (F) or back (B)
- 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.
- 10) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.
- 11) Truss Design Engineer Julius Lee PE: Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**LOAD CASE(S)** Standard

1) Regular Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-2=-44, 2-5=-44 5-8=-44, 8-9=-44, 13-14=-10, 13-15=-61(F=-51), 15-16=-91(F=-51) 11-16=-61(F=-51) 10-11=-10

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 3-3-0 oc purlins, except end verticals.

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

WEBS 1 Row at midpt 5-11 5-13

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.



January 15, 2014

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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach FL 33435

| Job  | Truss | Truss Type   | Qty | Ply | Jennings Additions |
|--|-------|--------------|-----|-----|--------------------|
| 543737   | T09G  | Common Truss | 1   | 1   | 17716446           |
| <div>Builders FirstSource</div> <div>Lake City FL 32065</div> <div>7.350 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:24:40 2014 Page 2</div> <div>ID Bgyf94Eu6Auek\$JXgSpdhQzGZGs-GfeawQl9GKIWcGNFJhGOI3V4VsMYAgitgDS84rzy5c5</div> <div>Job Reference (optional)</div>   |       |              |     |     |                    |
| <p>13) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.</p> <p>14) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.</p> <p>15) Truss Design Engineer: Julius Lee PE, Florida P.E. License No. 34869 Address, 1109 Coastal Bay Blvd. Boynton Beach, FL 33435</p> <p>LOAD CASE(S) Standard</p> |       |              |     |     |                    |



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Julius Lee PE  
 1109 Coastal Bay  
 Boynton Beach, FL 33435

|               |              |                             |          |          |  |          |
|---------------|--------------|-----------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T11 | Truss Type<br>Scissor Truss | Qty<br>3 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716448 |
|---------------|--------------|-----------------------------|----------|----------|--|----------|

Builders FirstSource Lake City FL 32055

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Scale 1/75.0

|               |                      |       |            |          |          |        |      |        |         |
|---------------|----------------------|-------|------------|----------|----------|--------|------|--------|---------|
| LOADING (psf) | SPACING              | 2-0-0 | CSI        | DEFL     | in (loc) | l/defl | L/d  | PLATES | GRIP    |
| TCLL 20.0     | Plates Increase      | 1.25  | TC 0.35    | Vert(LL) | -0.17    | 12     | >999 | MT20   | 244/190 |
| TCDL 7.0      | Lumber Increase      | 1.25  | BC 0.43    | Vert(TL) | -0.32    | 11     | >925 |        |         |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.78    | Horz(TL) | 0.56     | 10     | n/a  |        |         |
| BCDL 5.0      | Code FBC2010/TPI2007 |       | (Matrix-M) |          |          |        |      |        |         |

Weight: 165 lb FT = 20%

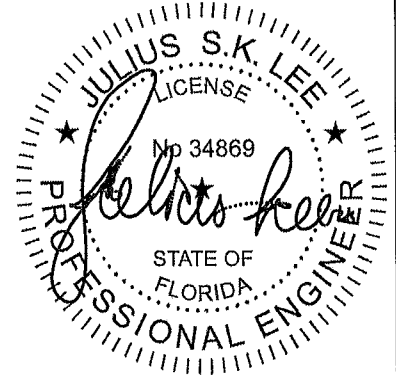
|           |             |             |           |  |  |
|-----------|-------------|-------------|-----------|--|--|
| LUMBER    | TOP CHORD   | 2x4 SP No.2 | BRACING   | TOP CHORD  | Structural wood sheathing directly applied or 3-8-1 oc purlins, except end verticals |
| BOT CHORD | 2x4 SP No.2 | BRACING     | BOT CHORD | Rigid ceiling directly applied or 6-5-12 oc bracing. |  |
| WEBS      | 2x4 SP No.3 | BRACING     | WEBS      | 1 Row at midpt 3-14, 7 10                            |  |

REACTIONS (lb/size) 14=723/0-5-8 (min. 0-1-8), 10=723/0-5-8 (min. 0-1-8)  
Max Horz 14=-489(LC 10)  
Max Uplift 14=-351(LC 12) 10=-351(LC 13)  
Max Grav 14=860(LC 2) 10=860(LC 2)

FORCES (lb) Max. Comp./Max. Ten. All forces 250 (lb) or less except when shown.  
TOP CHORD 3-4=-2123/761 4-5=-2310/522 5-6=-2310/552 6-7=-2076/723 2-14=-311/233 8-10=-306/234  
BOT CHORD 13-14=-788/1438 12-13=-833/2152, 11-12=-404/2120, 10-11=-416/1339  
WEBS 5-12=-652/2632, 6-12=-383/489 6-11=-581/220 7-11=-109/479, 4-12=-349/449 4-13=-502/75,  
3-13=-7/422, 3-14=-1859/639, 7 10=-1986/608

NOTES (9-11)  
1) Unbalanced roof live loads have been considered for this design  
2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II, Exp C Encl., GCPI=0.18 MWFRS (envelope) gable end zone and C-C Exterior(2) zone; end vertical left and right exposed, C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads  
4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
6) Bearing at joint(s) 14, 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula Building designer should verify capacity of bearing surface.  
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 351 lb uplift at joint 14 and 351 lb uplift at joint 10  
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.  
9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code  
10) Note Visually graded lumber designation SP, represents new lumber design values as per SPIB.  
11) Truss Design Engineer: Julius Lee PE: Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

LOAD CASE(S) Standard



January 15, 2014

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Julius Lee PE  
1109 Coastal Bay  
Boynton Beach FL 33435

|               |              |                             |           |          |  |          |
|---------------|--------------|-----------------------------|-----------|----------|--|----------|
| Job<br>543737 | Truss<br>T12 | Truss Type<br>Special Truss | Qty<br>16 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716450 |
|---------------|--------------|-----------------------------|-----------|----------|--|----------|

Builders FirstSource, Lake City FL 32055

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Scale = 1/74.8

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

|               |                      |       |            |          |          |        |      |        |         |
|---------------|----------------------|-------|------------|----------|----------|--------|------|--------|---------|
| LOADING (psf) | SPACING              | 2-0-0 | CSI        | DEFL     | In (loc) | I/defl | L/d  | PLATES | GRIP    |
| TCLL 20.0     | Plates Increase      | 1.25  | TC 0.37    | Vert(LL) | 0.17     | 11     | >999 | MT20   | 244/190 |
| TCDL 7.0      | Lumber Increase      | 1.25  | BC 0.43    | Vert(TL) | -0.29    | 11-12  | >990 |        |         |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.75    | Horz(TL) | 0.52     | 9      | n/a  |        |         |
| BCDL 5.0      | Code FBC2010/TPI2007 |       | (Matrix-M) |          |          |        |      |        |         |

Weight: 161 lb FT = 20%

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

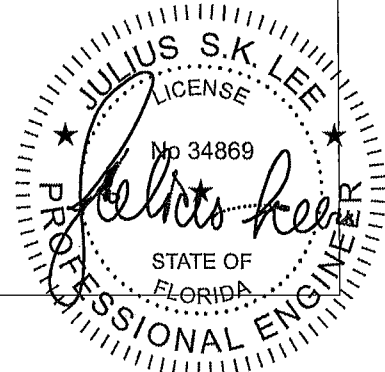
**BRACING**  
 TOP CHORD Structural wood sheathing directly applied or 3-8-13 oc purlins, except end verticals  
 BOT CHORD Rigid ceiling directly applied or 6-10-12 oc bracing.  
 WEBS 1 Row at midpt 3-13, 7-9

**REACTIONS** (lb/size) 13=721/0-5-8 (min 0-1-8) 9=652/0-3-8 (min 0-1-8)  
 Max Horz 13=380(LC 9)  
 Max Uplift 13=195(LC 12) 9=170(LC 13)  
 Max Grav 13=857(LC 2), 9=772(LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-4=2065/919 4-5=2213/788, 5-6=2212/787 6-7=1997/842 2-13=310/236  
 BOT CHORD 12-13=679/1350, 11 12=734/2052 10-11=685/2007 9-10=555/1245  
 WEBS 3-12=12/402 4-12=473/83, 4-11=326/418, 5-11=871/2506, 6-11=344/423, 6-10=523/176, 7 10=79/437, 3-13=1812/707 7-9=1873/808

**NOTES** (9-11)  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph TCDL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C, Encl GCp=0.18, MWFRS (envelope) and C-C Exterior(2) zone; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60  
 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-0-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
 5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.  
 6) Bearing at joint(s) 13, 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.  
 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 195 lb uplift at joint 13 and 170 lb uplift at joint 9.  
 8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss  
 9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code  
 10) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
 11) Truss Design Engineer: Julius Lee, PE, Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd Boynton Beach, FL 33435

**LOAD CASE(S)** Standard



January 15, 2014

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 1109 Coastal Bay  
 Boynton Beach FL 33435



|               |               |                            |          |          |  |          |
|---------------|---------------|----------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T13G | Truss Type<br>Common Truss | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716452 |
|---------------|---------------|----------------------------|----------|----------|--|----------|

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7,350 s Sep 27 2012 Mitek Industries, Inc. Wed Jan 15 13:24:51 2014 Page 1

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Scale = 1:50.2

|  |                      |            |                      |        |     |                |          |
|--|----------------------|------------|----------------------|--------|-----|----------------|----------|
| Plate Offsets (X,Y) [14:0-4-0,0-0-4], [25:0-1-13,0-1-0], [35:0-1-13,0-1-0] |                      |            |                      |        |     |                |          |
| LOADING (psf)  | SPACING 2-0-0        | CSI        | DEFL in (loc)        | I/defl | L/d | PLATES         | GRIP     |
| TCLL 20.0  | Plates Increase 1.25 | TC 0.41    | Vert(LL) 0.02 12-13  | >999   | 240 | MT20           | 244/190  |
| TCDL 7.0   | Lumber Increase 1.25 | BC 0.18    | Vert(TL) -0.02 12-13 | >999   | 180 |                |          |
| BCLL 0.0 *   | Rep Stress Incr NO   | WB 0.50    | Horz(TL) 0.00 10     | n/a    | n/a |                |          |
| BCDL 5.0   | Code FBC2010/TPI2007 | (Matrix-M) |                      |        |     |                |          |
|  |                      |            |                      |        |     | Weight: 241 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x6 SP No.2

WEBS 2x4 SP No.3

OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD

BOT CHORD

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

Mitek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS** All bearings 4-3-12.

(lb) - Max Horz 17=373(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 17 10, 16, 11 except 12=688(LC 9) 15=708(LC 8)

Max Grav All reactions 250 lb or less at joint(s) 18, 11 except 17=284(LC 2), 12=688(LC 2) 15=672(LC 2) 10=284(LC 2)

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

TOP CHORD 4-5=-338/352 5-6=-338/345, 2-17=-259/75 8-10=-259/49

BOT CHORD 16-17=-352/348, 15-16=-352/348, 15-36=-238/275 36-37=-238/275, 14-37=-238/275

14-38=-238/275, 13-38=-238/275

WEBS 6-12=-531/457 4-15=-531/465

**NOTES** (13-15)

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

2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II Exp C Encl GCpi=0.18; MWFRS (envelope) gable end zone; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

3) Truss designed for wind loads in the plane of the truss only For studs exposed to wind (normal to the face) see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1

4) All plates are 2x4 MT20 unless otherwise indicated

5) Gable studs spaced at 2-0-0 oc.

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

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

8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.

9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17 10 16 11 except (it=lb) 12=688 15=708.

10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

11) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 26 lb down and 64 lb up at 6-5-9 58 lb down and 91 lb up at 7-5-4 53 lb down and 93 lb up at 7-6-12, 53 lb down and 93 lb up at 9-6-12, 53 lb down and 93 lb up at 10-9-4, 53 lb down and 93 lb up at 12-9-4 and 58 lb down and 91 lb up at 12-10-12, and 28 lb down and 64 lb up at 13-10-8 on bottom chord The design/selection of such connection device(s) is the responsibility of others.

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

13) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.

14) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.

15) Truss Design Engineer Julius Lee PE: Florida P E License No 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435



January 15, 2014

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1109 Coastal Bay  
Boynton Beach FL 33435

|               |              |                             |          |          |  |          |
|---------------|--------------|-----------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T14 | Truss Type<br>Special Truss | Qty<br>3 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716453 |
|---------------|--------------|-----------------------------|----------|----------|--|----------|

Builders FirstSource Lake City FL 32055

7.350 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:24:53 2014 Page 1  
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Scale = 1:83.2

|  |  |
|--|--|
| Plate Offsets (X, Y): [3:0-4-6, Edge], [7:0-4-6, Edge] |  |
|--|--|

|               |                      |            |                |          |        |     |                |          |
|---------------|----------------------|------------|----------------|----------|--------|-----|----------------|----------|
| LOADING (psf) | SPACING              | CSI        | DEFL           | in (loc) | l/defl | L/d | PLATES         | GRIP     |
| TCLL 20.0     | Plates Increase 1.25 | TC 0.45    | Vert(LL) -0.15 | 13-14    | >999   | 240 | MT20           | 244/190  |
| TCDL 7.0      | Lumber Increase 1.25 | BC 0.84    | Vert(TL) -0.28 | 13-14    | >858   | 180 |                |          |
| BCLL 0.0 *    | Rep Stress Incr YES  | WB 0.57    | Horz(TL) 0.62  | 10       | n/a    | n/a |                |          |
| BCDL 5.0      | Code FBC2010/TP12007 | (Matrix-M) |                |          |        |     | Weight: 153 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2 \*Except\*  
B2: 2x4 SP No.1  
WEBS 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 5-5-13 oc purlins, except end verticals  
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing

**REACTIONS** (lb/size) 16=608/0-5-8 (min. 0-1-8) 10=608/0-5-8 (min. 0-1-8)  
Max Horz 16=-337(LC 10) 10=-167(LC 13)  
Max Uplift 16=-167(LC 12) 10=-167(LC 13)  
Max Grav 16=721(LC 2), 10=721(LC 2)

**FORCES** (lb) Max. Comp./Max. Ten. All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-660/325, 3-4=-1077/543 4-5=-832/431 5-6=-832/430, 6-7=-995/473, 7-8=-628/301  
2-16=-1030/428, 8-10=-983/461  
BOT CHORD 15-16=-326/310, 14-15=-372/130, 3-14=-303/181 13-14=-229/727 12-13=-159/708  
11 12=-312/87 7 12=-338/162  
WEBS 5-13=-379/681 6-13=-356/268, 4-13=-385/291 4-14=-269/299 2-15=-153/575, 8-11=-141/558

**NOTES** (8-10)  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C, Encl GCpl=0.18, MWFRS (envelope) and C-C Exterior(2) zone end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown Lumber DOL=1.60  
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members  
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (l=lb) 16=167 10=167  
7) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.  
8) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.  
9) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.  
10) Truss Design Engineer: Julius Lee, P.E. Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**LOAD CASE(S)** Standard



January 15, 2014

**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIT-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer - not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Julius Lee PE  
1109 Coastal Bay  
Boynton Beach FL 33435



|               |              |                               |           |          |  |          |
|---------------|--------------|-------------------------------|-----------|----------|--|----------|
| Job<br>543737 | Truss<br>T17 | Truss Type<br>Monopitch Truss | Qty<br>11 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | 17716457 |
|---------------|--------------|-------------------------------|-----------|----------|--|----------|

Builders FirstSource Lake City FL 32055 7,350 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:24:59 2014 Page 1  
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Scale = 1/17.5

|  |                 |                 |            |          |          |        |      |               |          |
|--|-----------------|-----------------|------------|----------|----------|--------|------|---------------|----------|
| Plate Offsets (X,Y) [2,0-2-7,Edge], [4,Edge,0-3-8] |                 |                 |            |          |          |        |      |               |          |
| LOADING (psf)                                      | SPACING         | 2-0-0           | CSI        | DEFL     | In (loc) | l/defl | L/d  | PLATES        | GRIP     |
| TCLL 20.0  | Plates Increase | 1.25            | TC 0.56    | Vert(LL) | 0.27     | 4-8    | >351 | MT20          | 244/190  |
| TCDL 7.0   | Lumber Increase | 1.25            | BC 0.46    | Vert(TL) | 0.23     | 4-8    | >411 |               |          |
| BCLL 0.0 *   | Rep Stress Incr | YES             | WB 0.00    | Horz(TL) | -0.01    | 2      | n/a  |               |          |
| BCDL 5.0   | Code            | FBC2010/TP12007 | (Matrix-M) |          |          |        |      | Weight: 31 lb | FT = 20% |

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

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins except end verticals.  
BOT CHORD Rigid ceiling directly applied or 9-6-11 oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

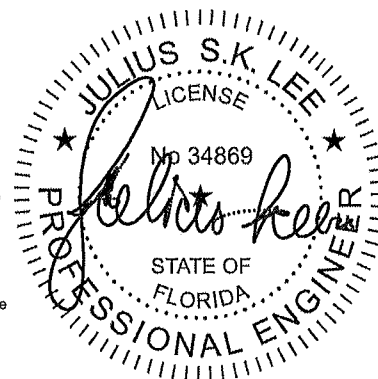
**REACTIONS** (lb/size) 2=303/0-3-8 (min. 0-1-8) 9=164/0-2-0 (min. 0-1-8)  
Max Horz 2=83(LC 8)  
Max Uplift 2=249(LC 8) 9=140(LC 8)  
Max Grav 2=362(LC 2) 9=194(LC 2)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=866/1677  
BOT CHORD 2-4=1853/949

**NOTES** (9-11)  
1) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II Exp C, Encl, GCPI=0.18, MWFRS (envelope) and C-C Exterior(2) zone; porch left and right exposed C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60  
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members  
4) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
5) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TP1 1 angle to grain formula Building designer should verify capacity of bearing surface  
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9  
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (l=lb) 2=249 9=140.  
8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.  
9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TP1 1 as referenced by the building code.  
10) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
11) Truss Design Engineer: Julius Lee PE: Florida P.E. License No. 34869; Address 1109 Coastal Bay Blvd Boynton Beach, FL 33435

**LOAD CASE(S)** Standard

January 15, 2014



**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MH-7473 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. Applicability of design parameters and proper incorporation of component is responsibility of building designer, not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery, erection and bracing, consult ANSI/TP11 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive Madison, WI 53719

Julius Lee PE  
1109 Coastal Bay  
Boynton Beach, FL 33435

|               |              |                         |          |          |  |          |
|---------------|--------------|-------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>T19 | Truss Type<br>Hip Truss | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716459 |
|---------------|--------------|-------------------------|----------|----------|--|----------|

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|  |   |  |  |   |
|--|---|--|--|---|
| LOADING (psf)<br>TCLL 20.0<br>TCDL 7.0<br>BCLL 0.0 *<br>BCDL 5.0 | SPACING 2-0-0<br>Plates Increase 1.25<br>Lumber Increase 1.25<br>Rep Stress Incr NO<br>Code FBC2010/TP12007 | CSI<br>TC 0.13<br>BC 0.19<br>WB 0.03<br>(Matrix-M) | DEFL in (loc) l/defl L/d<br>Vert(LL) 0.03 7-8 >999 240<br>Vert(TL) -0.03 7-8 >999 180<br>Horz(TL) 0.01 5 n/a n/a | PLATES GRIP<br>MT20 244/190<br><br>Weight: 32 lb FT = 20% |
|--|---|--|--|---|

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.3

**BRACING**

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

BOT CHORD Rigid ceiling directly applied or 8-3-6 oc bracing

MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS** (lb/size) 2=307/0-3-8 (min. 0-1-8) 5=312/0-3-8 (min. 0-1-8)

Max Horz 2=19(LC 4)

Max Uplift 2=289(LC 4) 5=299(LC 5)

Max Grav 2=366(LC 2) 5=371(LC 2)

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

TOP CHORD 2-3=626/524, 3-4=618/549, 4-5=644/554

BOT CHORD 2-8=489/593, 7-8=499/600, 5-7=510/610

**NOTES** (11-13)

- 1) Unbalanced roof live loads have been considered for this design
- 2) Wind ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C, Encl. GCpi=0.18 MWFRS (envelope); porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Provide adequate drainage to prevent water ponding
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members
- 6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (j=l=b) 2=289 5=299.
- 8) 'Semi-rigid pitchbreaks including heels' Member end fixity model was used in the analysis and design of this truss
- 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 8 lb down and 52 lb up at 3-0-0, and 25 lb down and 121 lb up at 5-0-0 on top chord and 31 lb down and 82 lb up at 3-0-0, and 31 lb down and 82 lb up at 4-11-4 on bottom chord The design/selection of such connection device(s) is the responsibility of others.
- 10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B)
- 11) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code
- 12) Note: Visually graded lumber designation SPP, represents new lumber design values as per SPIB.
- 13) Truss Design Engineer: Julius Lee, PE, Florida P.E. License No. 34869 Address 1109 Coastal Bay Blvd Boynton Beach FL 33435

**LOAD CASE(S)** Standard

1) Regular: Lumber Increase=1.25, Plate Increase=1.25

Uniform Loads (plf)

Vert: 1-3=-44, 3-4=-44 4-6=-44 9-12=-10

Concentrated Loads (lb)

Vert: 3=0(B) 4=-18(B) 8=-26(B) 7=-26(B)



January 15, 2014

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Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach FL 33435

|               |              |                     |          |          |  |          |
|---------------|--------------|---------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>V02 | Truss Type<br>GABLE | Qty<br>2 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716461 |
|---------------|--------------|---------------------|----------|----------|--|----------|

Builders FirstSource, Lake City FL 32055

7.350 s Sep 27 2012 MiTek Industries, Inc. Wed Jan 15 13:25:03 2014 Page 1  
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|                                       |                      |          |                          |                |          |
|---------------------------------------|----------------------|----------|--------------------------|----------------|----------|
| Plate Offsets (X,Y): [10:0-3-0,0-3-0] |                      |          |                          |                |          |
| LOADING (psf)                         | SPACING              | CSI      | DEFL                     | PLATES         | GRIP     |
| TCLL 20.0                             | Plates Increase 1.25 | TC 0.28  | in (loc) l/defl L/d      | MT20           | 244/190  |
| TCDL 7 0                              | Lumber Increase 1.25 | BC 0.14  | Vert(LL) n/a n/a 999     |                |          |
| BCLL 0 0 *                            | Rep Stress Incr YES  | WB 0.28  | Vert(TL) n/a n/a 999     |                |          |
| BCDL 5 0                              | Code FBC2010/TPI2007 | (Matrix) | Horz(TL) -0.00 8 n/a n/a |                |          |
|                                       |                      |          |                          | Weight: 139 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x6 SP No.2

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

ST4, 2x4 SP No 2

**REACTIONS** All bearings 17-8-8.

(lb) - Max Horz 1=493(LC 12)

Max Uplift All uplift 100 lb or less at joint(s) 8 except 1=114(LC 10) 12=189(LC 12)

11=173(LC 12) 10=185(LC 12) 9=138(LC 12)

Max Grav All reactions 250 lb or less at joint(s) 8 except 1=349(LC 12) 12=345(LC 21)

11=411(LC 21), 10=431(LC 21) 9=315(LC 21)

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

TOP CHORD 1-2=-801/678, 2-3=-594/502, 3-4=-393/303, 4-5=-373/336

WEBS 2-12=-386/293, 3-11=-368/280, 5-10=-390/296, 6-9=-300/227

**NOTES** (9-11)

1) Wind: ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph: TCDL=4.2psf: BCDL=3.0psf; h=20ft, Cat. II Exp C, Encl GCpl=0 18, MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown, Lumber DOL=1.60 plate grip DOL=1.60

2) All plates are 2x4 MT20 unless otherwise indicated.

3) Gable requires continuous bottom chord bearing.

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

5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-6" tall by 2'-0" wide will fit between the bottom chord and any other members, with BCDL = 5.0psf

6) All bearings are assumed to be SP No.2 crushing capacity of 565 psi

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8 except (j=lb) 1=114, 12=189, 11=173, 10=185, 9=138.

8) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.

9) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TP1 1 as referenced by the building code

10) Note: Visually graded lumber designation SPp, represents new lumber design values as per SPIB.

11) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach FL 33435

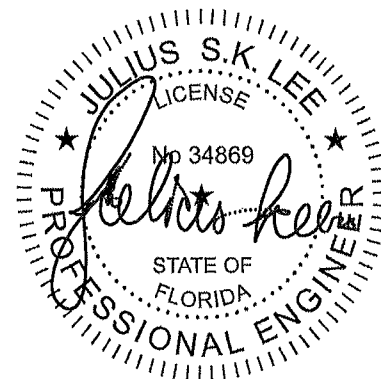
**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6'-0" oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 6'-0" oc bracing.

WEBS 1 Row at midpt 7-8, 5-10 6-9

MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.



January 15,2014

**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK REFERENCE PAGE MI-7473 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.  
Applicability of design parameters and proper incorporation of component is responsibility of building designer, not truss designer. Bracing shown is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TP1 Quality Criteria, DSB-89 and BCS11 Building Component Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive Madison, WI 53719

Julius Lee PE  
1109 Coastal Bay  
Boynton Beach, FL 33435

|               |              |                            |          |          |  |          |
|---------------|--------------|----------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>V04 | Truss Type<br>Valley Truss | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716463 |
|---------------|--------------|----------------------------|----------|----------|--|----------|

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Scale = 1/31.4

|   |                      |       |          |                          |                         |
|---|----------------------|-------|----------|--------------------------|-------------------------|
| Plate Offsets (X,Y): [5:0-2-0,0-1 13], [7:0-2-0,0-1 13] |                      |       |          |                          |                         |
| LOADING (psf)   | SPACING              | 2-0-0 | CSI      | DEFL                     | PLATES GRIP             |
| TCLL 20.0   | Plates Increase      | 1.25  | TC 0.24  | in (loc) l/defl L/d      | MT20 244/190            |
| BCDL 7.0  | Lumber Increase      | 1.25  | BC 0.15  | Vert(LL) n/a - n/a 999   |                         |
| BCLL 0.0 *  | Rep Stress Incr      | YES   | WB 0.32  | Vert(TL) n/a - n/a 999   |                         |
| BCDL 5.0  | Code FBC2010/TPI2007 |       | (Matrix) | Horz(TL) 0.01 11 n/a n/a |                         |
|   |                      |       |          |                          | Weight: 140 lb FT = 20% |

**LUMBER**

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

OTHERS 2x4 SP No.3

**BRACING**

TOP CHORD

BOT CHORD

WEBS

Structural wood sheathing directly applied or 6-0-0 oc purlins  
Rigid ceiling directly applied or 10-0-0 oc bracing.  
1 Row at midpt 6-15  
MITek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide.

**REACTIONS** All bearings 27-4-6.  
(lb) - Max Horz 1=-228(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 15 except 1=-132(LC 10) 11=-112(LC 11)  
17=-115(LC 12) 18=-195(LC 12) 19=-143(LC 12) 14=-108(LC 13) 13=-196(LC 13)  
12=-142(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 1 11 19 12 except 15=302(LC 1) 17=380(LC 21)  
18=373(LC 21) 14=370(LC 22) 13=375(LC 22)

**FORCES** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-384/341 10-11=-384/341  
BOT CHORD 1 19=-247/290, 18-19=-247/290, 17-18=-247/290, 16-17=-247/290, 15-16=-247/290,  
14-15=-247/290, 13-14=-247/290, 12-13=-247/290 11-12=-247/290  
WEBS 4-17=-279/187, 3-18=-404/312, 2-19=-312/234 8-14=-279/187 9-13=-404/312, 10-12=-312/234

**NOTES** (11-13)  
1) Unbalanced roof live loads have been considered for this design  
2) Wind: ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph; TCCL=4.2psf BCDL=3.0psf h=20ft; Cat. II Exp C Encl., GCpi=0.18, MWFRS (envelope) and C-C Exterior(2) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
3) Provide adequate drainage to prevent water ponding.  
4) All plates are 2x4 MT20 unless otherwise indicated  
5) Gable requires continuous bottom chord bearing.  
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.  
7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members with BCDL = 5.0psf  
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15 except (it=lb) 1=-132 11=-112, 17=-115, 18=-195, 19=-143, 14=-108, 13=-196, 12=-142.  
10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss  
11) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.  
12) Note Visually graded lumber designation SPP, represents new lumber design values as per SPIB.  
13) Truss Design Engineer: Julius Lee, PE: Florida P.E. License No. 34869 Address: 1109 Coastal Bay Blvd. Boynton Beach FL 33435

**LOAD CASE(S)** Standard



January 15, 2014

**WARNING** Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 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.  
Applicability of design parameters and proper incorporation of component is responsibility of building designer, not truss designer. Bracing shown  
is for lateral support of individual web members only. Additional temporary bracing to insure stability during construction is the responsibility of the  
erector. Additional permanent bracing of the overall structure is the responsibility of the building designer. For general guidance regarding  
fabrication, quality control, storage, delivery erection and bracing, consult ANSI/TPI1 Quality Criteria, DSB-89 and BCS11 Building Component  
Safety Information available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Julius Lee PE,  
1109 Coastal Bay  
Boynton Beach, FL 33435

|               |              |                            |          |          |  |          |
|---------------|--------------|----------------------------|----------|----------|--|----------|
| Job<br>543737 | Truss<br>V06 | Truss Type<br>Valley Truss | Qty<br>1 | Ply<br>1 | Jennings Additions<br>Job Reference (optional) | I7716465 |
|---------------|--------------|----------------------------|----------|----------|--|----------|

Builders FirstSource, Lake City FL 32055

7 360 s Sep 27 2012 MITek Industries, Inc. Wed Jan 15 13:25:09 2014 Page 1  
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|   |  |   |   |  |  |
|---|--|---|---|--|--|
| <b>Plate Offsets (X,Y):</b> [3:0-2-0,0-1 13], [7:0-2-0,0-1-13]          |  |   |   |  |  |
| <b>LOADING (psf)</b><br>TCLL 20.0<br>TCDL 7.0<br>BCCL 0.0 *<br>BCDL 5.0 | <b>SPACING</b><br>2-0-0<br>Plates Increase 1.25<br>Lumber Increase 1.25<br>Rep Stress Incr YES<br>Code FBC2010/TP12007 | <b>CSI</b><br>TC 0.15<br>BC 0.09<br>WB 0.05<br>(Matrix) | <b>DEFL</b><br>in (loc) l/defl L/d<br>Vert(LL) n/a n/a 999<br>Vert(TL) n/a - n/a 999<br>Horz(TL) 0.00 9 n/a n/a | <b>PLATES GRIP</b><br>MT20 244/190<br><br>Weight: 70 lb FT = 20% |  |

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

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

**REACTIONS**  
 All bearings 19-4-6.  
 (lb) - Max Horz 1=58(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 1 9 12 14 15 11 10  
 Max Grav All reactions 250 lb or less at joint(s) 1 9 14 15 11 10 except 12=263(LC 27)

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

**NOTES** (11 13)  
 1) Unbalanced roof live loads have been considered for this design.  
 2) Wind, ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II Exp C Encl GCp=0.18 MWFRS (envelope) and C-C Exterior(2) zone C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60  
 3) Provide adequate drainage to prevent water ponding  
 4) All plates are 2x4 MT20 unless otherwise indicated  
 5) Gable requires continuous bottom chord bearing.  
 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads  
 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.  
 8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi  
 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 9 12 14 15 11 10.  
 10) "Semi-rigid pitchbreaks including heels" Member end fixity model was used in the analysis and design of this truss.  
 11) This manufactured product is designed as an individual building component. The suitability and use of this component for any particular building is the responsibility of the building designer per ANSI TPI 1 as referenced by the building code.  
 12) Note Visually graded lumber designation SPp, represents new lumber design values as per SPIB.  
 13) Truss Design Engineer: Julius Lee, PE; Florida P E License No 34869; Address: 1109 Coastal Bay Blvd. Boynton Beach, FL 33435

**LOAD CASE(S)** Standard



January 15, 2014

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Julius Lee PE  
 1109 Coastal Bay  
 Boynton Beach FL 33435

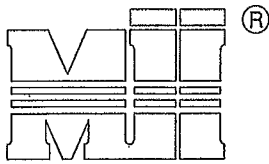


August 10, 2010

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

ST - T-BRACE 2

MITek Industries, Chesterfield, MO Page 1 of 1



MITek Industries, Inc.

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

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

## Nailing Pattern

| T-Brace size      | Nail Size | Nail Spacing |
|-------------------|-----------|--------------|
| 2x4 or 2x6 or 2x8 | 10d       | 6" o.c.      |

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

## Brace Size for One-Ply Truss

### Specified Continuous Rows of Lateral Bracing

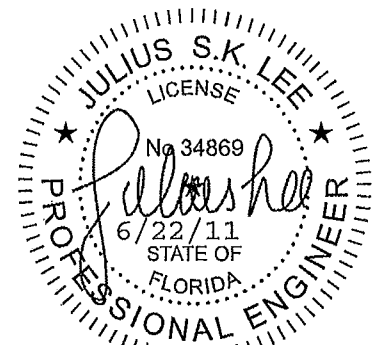
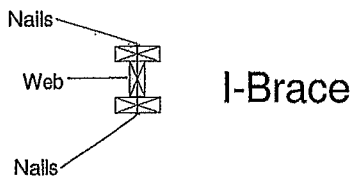
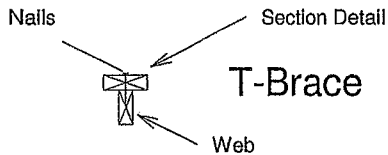
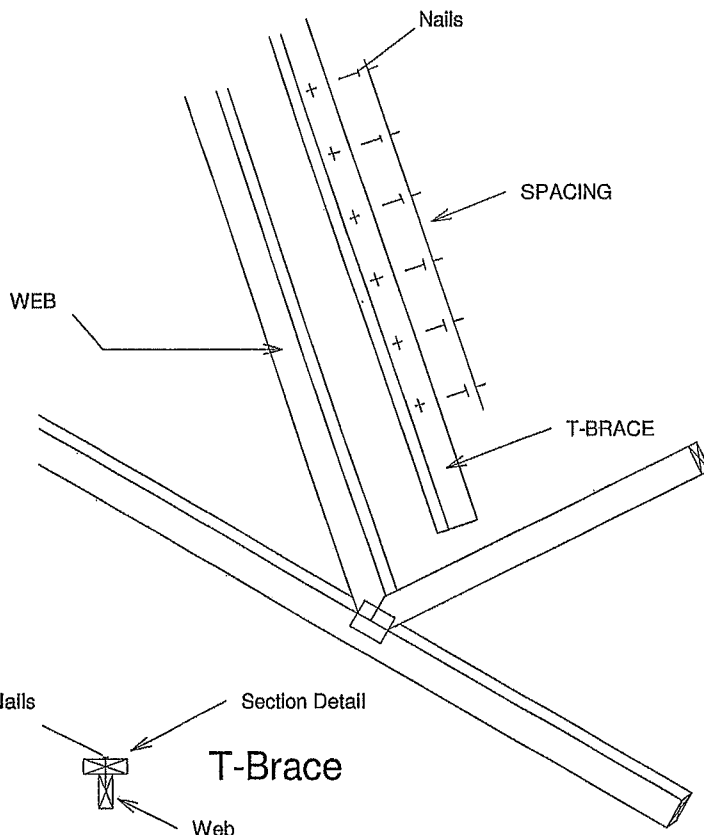
| Web Size   | 1           | 2           |
|------------|-------------|-------------|
| 2x3 or 2x4 | 2x4 T-Brace | 2x4 I-Brace |
| 2x6        | 2x6 T-Brace | 2x6 I-Brace |
| 2x8        | 2x8 T-Brace | 2x8 I-Brace |

## Brace Size for Two-Ply Truss

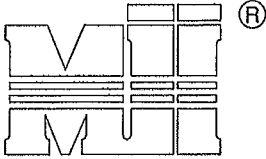
### Specified Continuous Rows of Lateral Bracing

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

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



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## NOTES:

1. TOE-NAILS SHALL BE DRIVEN AT AN ANGLE OF 45 DEGREES WITH THE MEMBER AND MUST HAVE FULL WOOD SUPPORT. (NAIL MUST BE DRIVEN THROUGH AND EXIT AT THE BACK CORNER OF THE MEMBER END AS SHOWN.)
2. THE END DISTANCE, EDGE DISTANCE, AND SPACING OF NAILS SHALL BE SUCH AS TO AVOID UNUSUAL SPLITTING OF THE WOOD.
3. ALLOWABLE VALUE SHALL BE THE LESSER VALUE OF THE TWO SPECIES FOR MEMBERS OF DIFFERENT SPECIES.

TOE-NAIL SINGLE SHEAR VALUES PER NDS 2001 (lb/nail)

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

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

## EXAMPLE:

(3) - 16d NAILS (.162" diam. x 3.5") WITH SPF SPECIES BOTTOM CHORD

For load duration increase of 1.15:

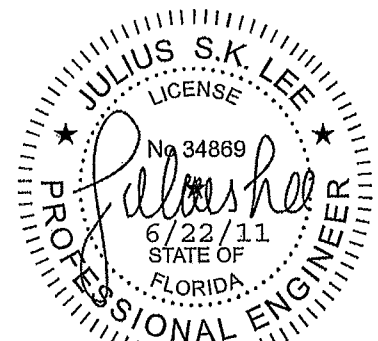
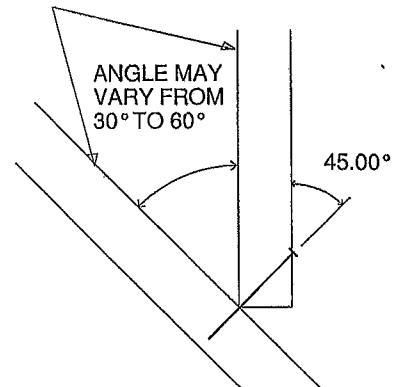
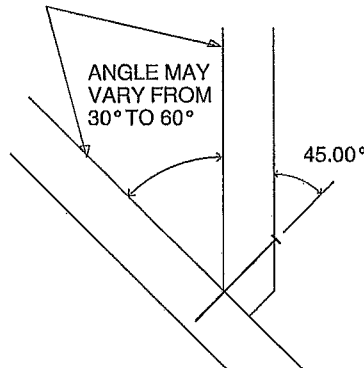
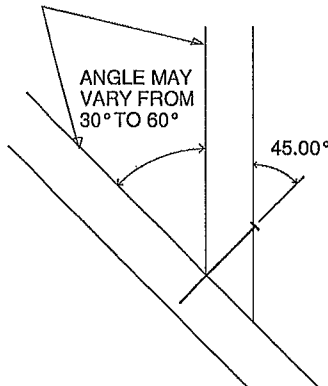
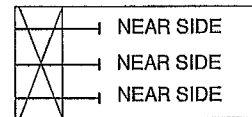
3 (nails) X 84.5 (lb/nail) X 1.15 (DOL) = 291.5 lb Maximum Capacity

THIS DETAIL APPLICABLE TO THE  
THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR  
ILLUSTRATION PURPOSES ONLY

SIDE VIEW

3 NAILS



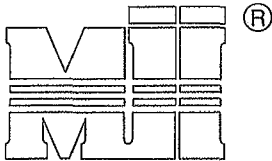
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FEBRUARY 14, 2012

# STANDARD PIGGYBACK TRUSS CONNECTION DETAIL

ST-PIGGY-7-10

MITek Industries, Chesterfield, MO

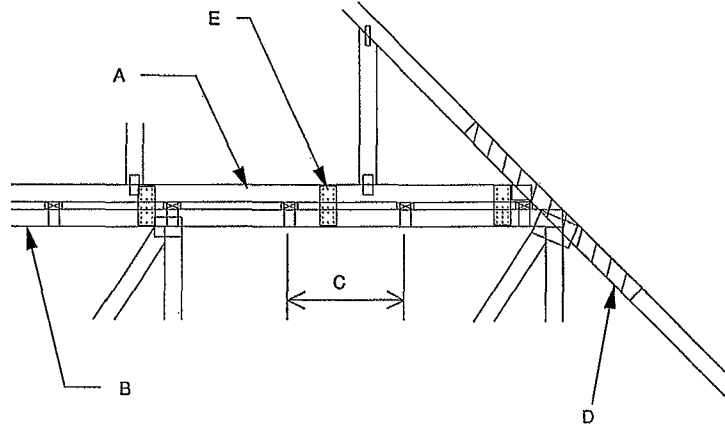


MITek Industries, Inc.

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

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

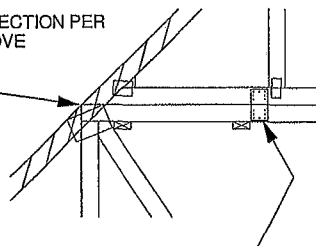
- A - PIGGYBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING. SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0.131" X 3.5" TOE NAILED
- B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
- C - PURLINS AT EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) 0.131" X 3.5" NAILS EACH
- D - 2 X 4'-0" SCAB, SIZE AND GRADE TO MATCH TOP CHORD OF PIGGYBACK TRUSS, ATTACHED TO ONE FACE, CENTERED ON INTERSECTION, WITH (2) ROWS OF 0.131" X 3" NAILS @ 4" O.C. SCAB MAY BE OMITTED PROVIDED THE TOP CHORD SHEATHING IS CONTINUOUS OVER INTERSECTION AT LEAST 1 FT. IN BOTH DIRECTIONS AND
1. WIND SPEED OF 115 MPH OR LESS FOR ANY PIGGYBACK SPAN, OR
2. WIND SPEED OF 116 MPH TO 160 MPH WITH A MAXIMUM PIGGYBACK SPAN OF 12 ft.
- E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 72" O.C. W/ (4) 0.131" X 1.5" PER MEMBER. STAGGER NAILS FROM OPPOSING FACES. ENSURE 0.5" EDGE DISTANCE. (MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)



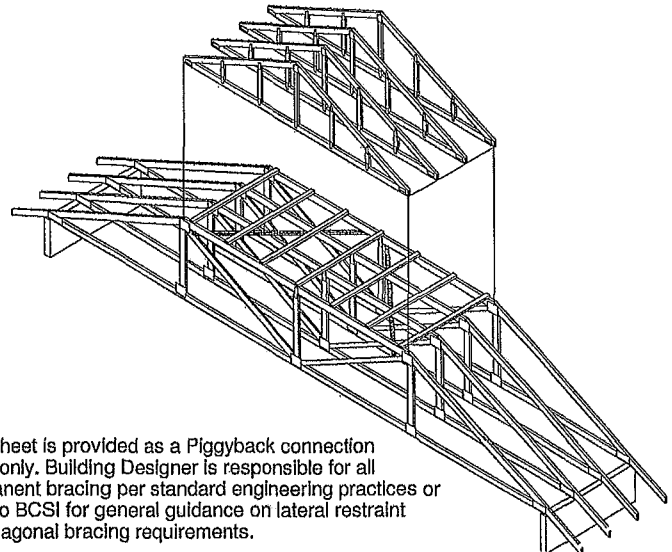
WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS.

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

SCAB CONNECTION PER NOTE D ABOVE

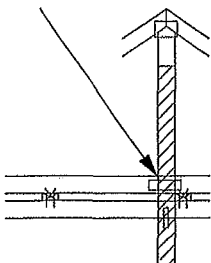


FOR ALL WIND SPEEDS, ATTACH MITEK 3X8 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O.C. W/ (4) 0.131" X 1.5" PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.



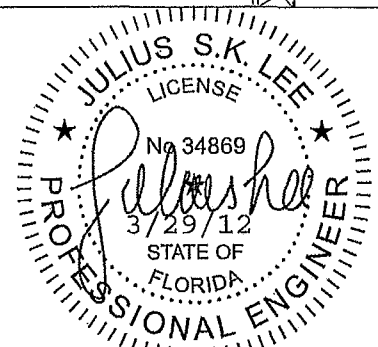
This sheet is provided as a Piggyback connection detail only. Building Designer is responsible for all permanent bracing per standard engineering practices or refer to BCSI for general guidance on lateral restraint and diagonal bracing requirements.

VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK

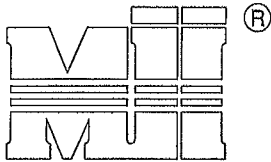


FOR LARGE CONCENTRATED LOADS APPLIED TO CAP TRUSS REQUIRING A VERTICAL WEB:

- 1) VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS MUST MATCH IN SIZE, GRADE, AND MUST LINE UP AS SHOWN IN DETAIL.
- 2) ATTACH 2 x 4'-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O.C. FROM EACH FACE. (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.) (MINIMUM 2X4)
- 3) THIS CONNECTION IS ONLY VALID FOR A MAXIMUM CONCENTRATED LOAD OF 4000 LBS (@1.15). REVIEW BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.
- 4) FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS, NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
- 5) CONCENTRATED LOAD MUST BE APPLIED TO BOTH THE PIGGYBACK AND THE BASE TRUSS DESIGN.



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## ALTERNATE DIAGONAL BRACING TO THE BOTTOM CHORD

Trusses @ 24" o.c.

HORIZONTAL BRACE  
(SEE SECTION A-A)

Roof Sheathing

2x6 DIAGONAL BRACE SPACED 48" O.C.  
ATTACHED TO VERTICAL WITH (4) - 16d  
COMMON WIRE NAILS AND ATTACHED  
TO BLOCKING WITH (5) - 10d COMMONS.1'-3"  
Max.

IT IS THE RESPONSIBILITY OF THE BLDG DESIGNER OR  
THE PROJECT ENGINEER/ARCHITECT TO DESIGN THE  
CEILING DIAPHRAGM AND ITS ATTACHMENT TO THE  
TRUSSES TO RESIST ALL OUT OF PLANE LOADS THAT  
MAY RESULT FROM THE BRACING OF THE GABLE ENDS

Diag. Brace  
at 1/3 points  
if needed

End Wall

NAIL DIAGONAL BRACE TO  
PURLIN WITH TWO 16d NAILS

2X 4 PURLIN FASTENED TO FOUR TRUSSES  
WITH TWO 16d NAILS EACH. FASTEN PURLIN  
TO BLOCKING W/ TWO 16d NAILS (MIN)

PROVIDE 2X4 BLOCKING BETWEEN THE TRUSSES  
SUPPORTING THE BRACE AND THE TWO TRUSSES  
ON EITHER SIDE AS NOTED. TOENAIL BLOCKING  
TO TRUSSES WITH (2) - 10d NAILS AT EACH END.  
ATTACH DIAGONAL BRACE TO BLOCKING WITH  
(5) - 10d COMMON WIRE NAILS.

CEILING SHEATHING

## BRACING REQUIREMENTS FOR STRUCTURAL GABLE TRUSSES

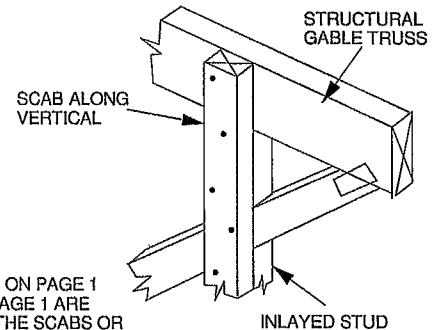
STRUCTURAL GABLE TRUSSES MAY BE BRACED AS NOTED:

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) OR LESS, NAIL ALL MEMBERS WITH ONE ROW OF 10d (.131" X 3") NAILS SPACED 6" O.C.
- FOR WIND SPEEDS GREATER 120 MPH (ASCE 7-98, 02, 05), 150 MPH (ASCE 7-10) NAIL ALL MEMBERS WITH TWO ROWS OF 10d (.131" X 3") NAILS SPACED 6" O.C. (2X 4 STUDS MINIMUM)

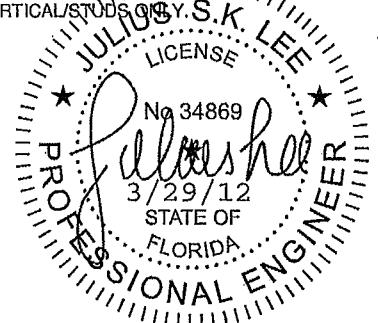


MAXIMUM STUD LENGTHS ARE LISTED ON PAGE 1  
ALL BRACING METHODS SHOWN ON PAGE 1 ARE  
VALID AND ARE TO BE FASTENED TO THE SCABS OR  
VERTICAL STUDS OF THE STANDARD GABLE TRUSS  
ON THE INTERIOR SIDE OF THE STRUCTURE.

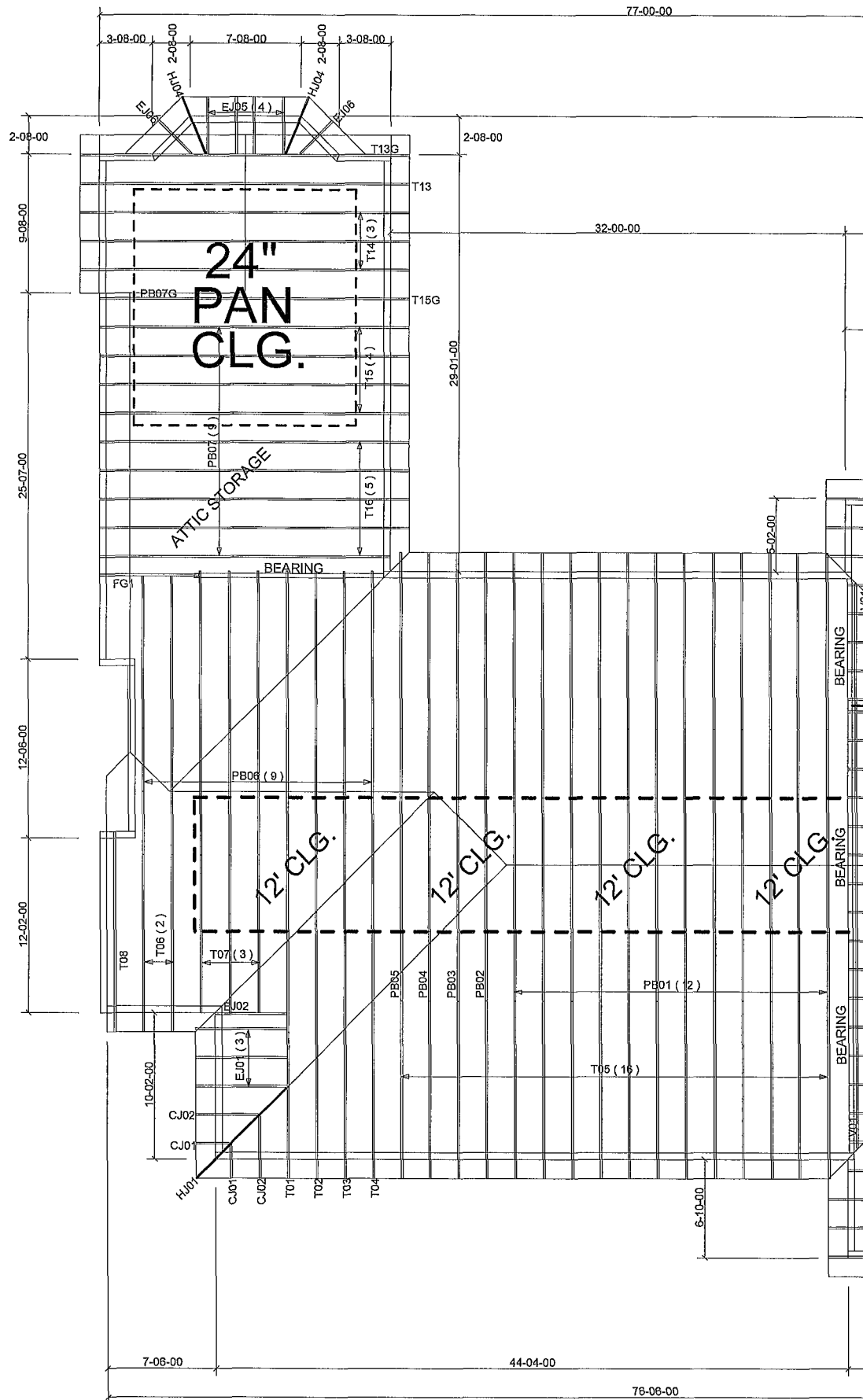
STRUCTURAL  
GABLE TRUSS

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.

NOTE - THIS DETAIL IS TO BE USED ONLY FOR  
STRUCTURAL GABLES WITH INLAYED  
STUDS. TRUSSES WITHOUT INLAYED  
STUDS ARE NOT ADDRESSED HERE

STANDARD  
GABLE TRUSS

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MITEK PLATE APPROVAL #'s 2197.2 - 2197.4, WEYERH