

RE: 533050 - GIEBEIG - Lot 8 Unit 3 Mayfair



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

Site Information:

Project Customer GIEBEIG HOMES Project Name. 533050 Model. ST. JOHNS 3 BDRM

Lot/Block: 8 Subdivision: MAYFAIR

Address:

City: COLUMBIA CTY State FL

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

Name BRIAN TRENT GIEBEIG License # RR282811523

Address 462 SW FAIRLINGTON CT

City: LAKE CITY State: FL

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 26 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	17520699	CJ1	11/20/013	18	17520716	T14	11/20/013
2	17520700	CJ3	11/20/013	19	I7520717	T15	11/20/013
3	17520701	CJ5	11/20/013	20	17520718	T16	11/20/013
4	17520702	EJ7	11/20/013	21	17520719	T17	11/20/013
5	17520703	HJ9	11/20/013	22	17520720	T18	11/20/013
6	17520704	T03	11/20/013	23	17520721	T18G	11/20/013
7	17520705	T03G	11/20/013	24	17520722	T19	11/20/013
8	17520706	T04	11/20/013	25	17520723	T20	11/20/013
9	17520707	T05	11/20/013	26	17520724	T21	11/20/013
10	17520708	T06	11/20/013				

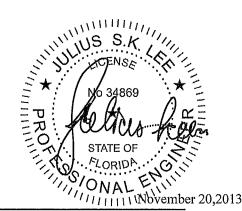
9	17520707	T05	11/20/013
10	17520708	T06	11/20/013
11	17520709	T07	11/20/013
12	17520710	T08	11/20/013
13	17520711	T09	11/20/013
14	17520712	T10	11/20/013
15	17520713	T11	11/20/013
16	17520714	T12	11/20/013
17	17520715	T13	11/20/013

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.



GIEBEIG - Lot 8 Unit 3 Mayfair Job Truss Truss Type 17520699 533050 CJ1 JACK 10 Job Reference (optional)
7.350 s Sep 27 2012 MITek Industries, Inc. Tue Nov 19 08:54:20 2013 Page 1
ID-9B5QRtZPhUL0yMYqzVn3hhzz6?b-vhlpzp8d8GTnvch?2xGQ5pe4037RrqZAq6ONYCyHg7X Bullders FirstSource, Lake City FL 32055 2-0-0 1-0-0 2-0-0 Scale = 1:9.9 6.00 12 T1 Plate Offsets (X,Y) [2:0-6-0,0-0-14] LOADING (psf) SPACING DEFL CSI I/deft PLATES GRIP L/d TCLL TCDL 1.25 1.25 TC BC Vert(LL) Vert(TL) 0.00 20.0 Plates Increase 0.25 >999 240 244/190 70 Lumber Increase 0.05 >999 180 Rep Stress Incr BCLL 0.0 YES WB 0.00 Horz(TL) 0.00 n/a BCDL Code FBC2010/TPI2007 (Matrix-M) Weight, 7 lb FT = 20%LUMBER BRACING TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 TOP CHORD Structural wood sheathing directly applied or 1-0-0 oc purlins, **BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide REACTIONS (lb/size) 2=182/0-3-8 (min 0-1-8), 4=-27/Mechanical, 3=-14/Mechanical Max Horz 2=52(LC 12) Max Uplift2=-102(LC 12), 4=-34(LC 2) 3=-18(LC 2) Max Grav 2=223(LC 2), 4=21(LC 12) 3=11(LC 16) FORCES (lb) - Max. Comp./Max. Ten - All forces 250 (lb) or less except when shown. NOTES NOTES (7-9)

1) Wind ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II Exp B Encl GCpi=0.18, MWFRS (envelope) gable end zone and C-C Exterior(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 U 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 102 lb uplift at joint 2, 34 lb uplift at joint 4 and 18 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) For special connections with reactions or uplifts less than 300 lbs. Use typical toe-nail connection (refer to BFS detail package)
 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

GIEBEIG Lot 8 Unit 3 Mayfair Job Truss Truss Type Qty 17520701 533050 CJ5 JACK 10 Job Reference (optional) 7.550 sep 27 2012 MiTek Industries, Inc. Tue Nov 19 08:54:22 2013 Page 1
ID 9B5QRtZPhUL0yMYqzVn3hhzz6?b-r4taOU9tgujU8vrNAMIuBEJQWtmtJk3THQtTc4yHg7 Builders FirstSource Lake City, FL 32055 -2-0-0 5-0-0 5-0-0 2-0-0 Scale # 1-20 2 6.00 12 Plate Offsets (X,Y) [2.0-6-0,0-1-2] LOADING (psf) SPACING DEFL in 0,05 PLATES GRIP 244/190 TCLL TCDL TC BC 0.25 20.0 Plates Increase 1 25 Vert(LL) 4-7 >999 240 MT20 1.25 0 18 Vert(TL) 0.04 4-7 180 Lumber Increase >999 70 Rep Stress Incr BCLL 0.0 YES WR 0.00 Horz(TL) -0 00 n/a n/a Code FBC2010/TPI2007 Weight: 19 lb FT = 20% (Matrix-M) BCDI. 50 BRACING LUMBER TOP CHORD BOT CHORD TOP CHORD 2x4 SP No.2 Structural wood sheathing directly applied or 5-0-0 oc purlins. BOT CHORD 2x4 SP No.2 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 (lb/slze) 3=79/Mechanical 2=253/0-3-8 (min. 0-1-8), 4=23/Mechanical Max Horz 2=128(LC 12) Max Uplift3=-70(LC 12) 2=-105(LC 12) 4=-26(LC 9) Max Grav 3=97(LC 2) 2=304(LC 2) 4=56(LC 3) FORCES (Ib) - Max. Comp./Max. Ten. - All forces 250 (Ib) or less except when shown. TOP CHORD 2-3=-281/457 BOT CHORD 2-4=-740/436 NOTES (7-9)

1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf BCDL=3.0psf h=18ft; Cat. II Exp B, 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 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 psl
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 70 lb uplift at joint 3, 105 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 sultability 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

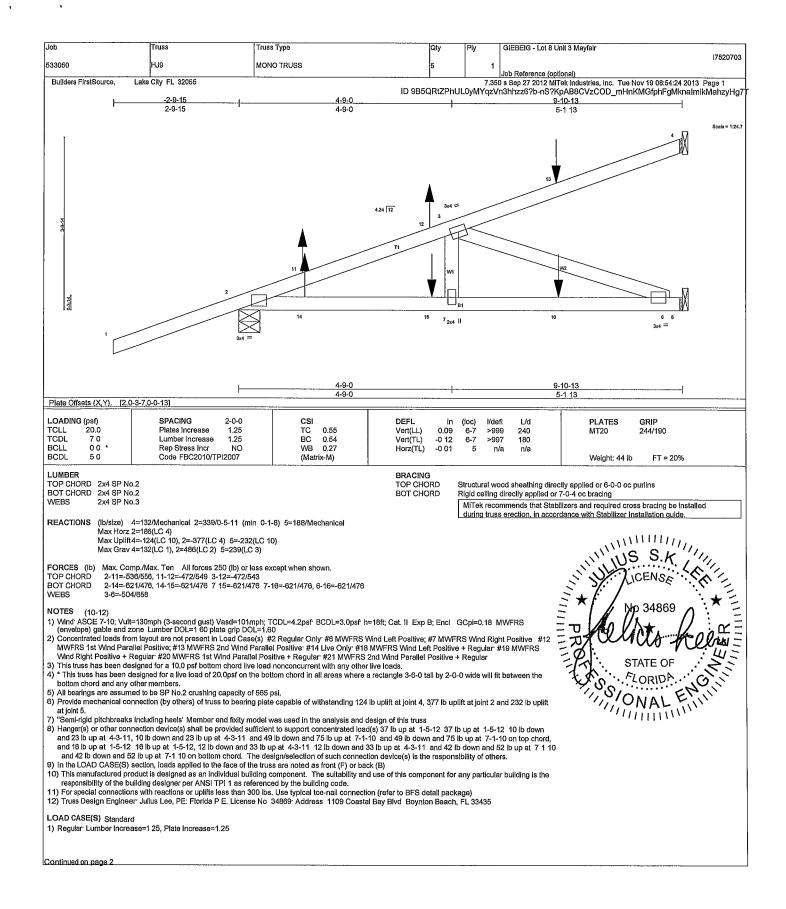
8) For special connections with reactions or uplifts less than 300 lbs Use typical toe-natio connection (refer to BFS detail package)

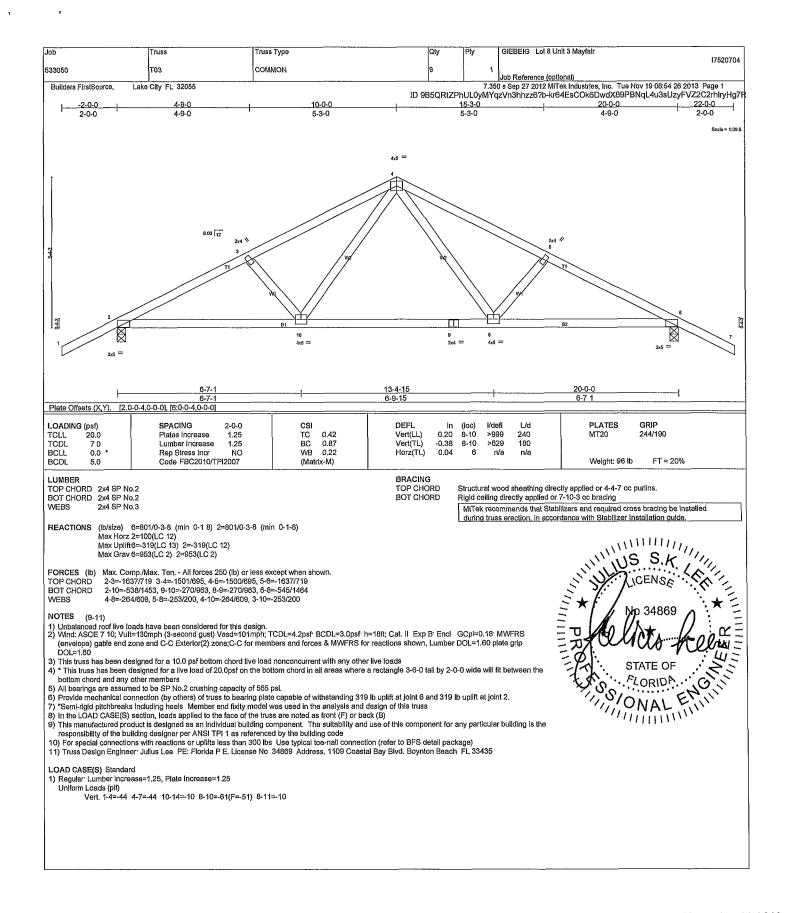
9) Truss Design Engineer Julius Lee, PE: Florida P E. License No. 34869 Address 1109 Coastal Bay Blvd Boynton Beach, FL 33435 LOAD CASE(S) Standard

November 20,2013

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/TPI Quality Criteria, DSB-89 and BCS11 Building Component Safety Intermation available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Julius Lee PE. 1109 Coastal Bay Boynton Beach FL 33435

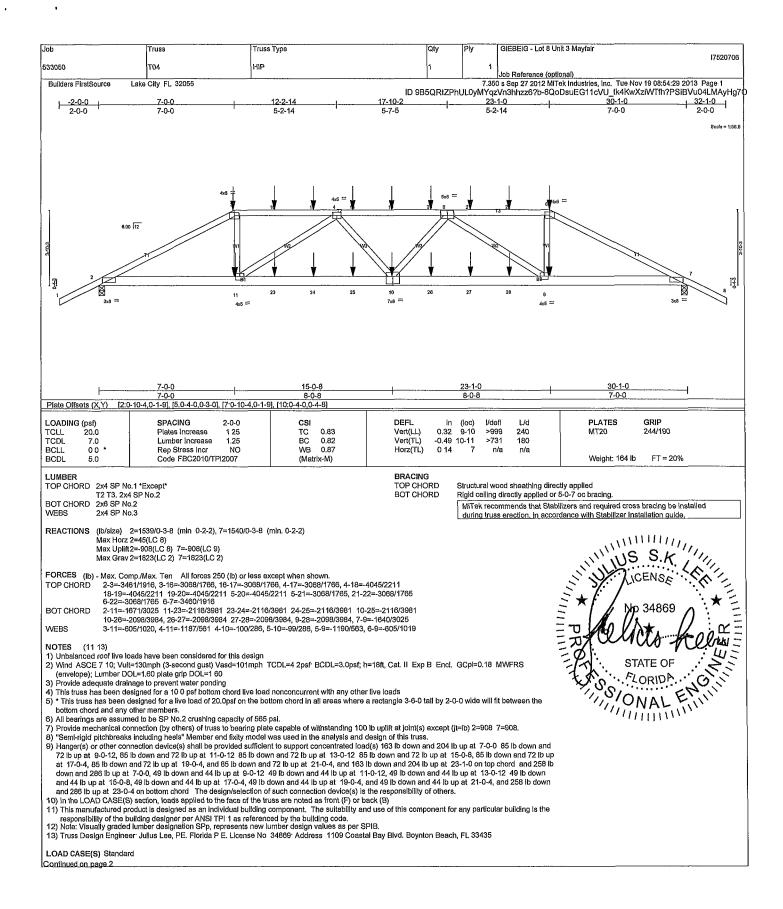


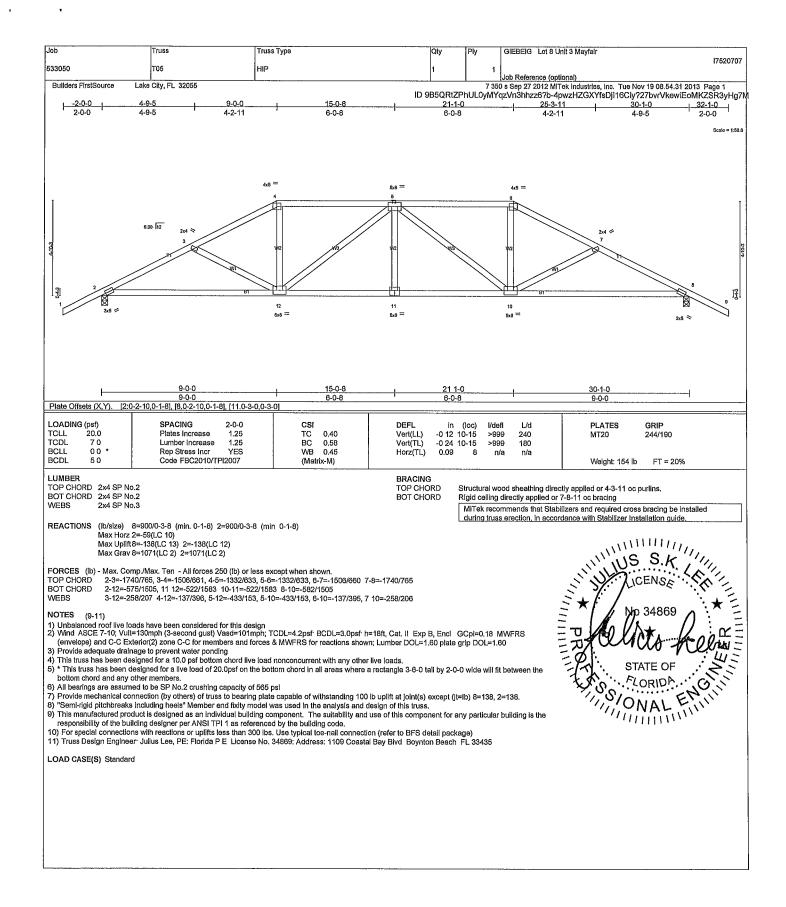


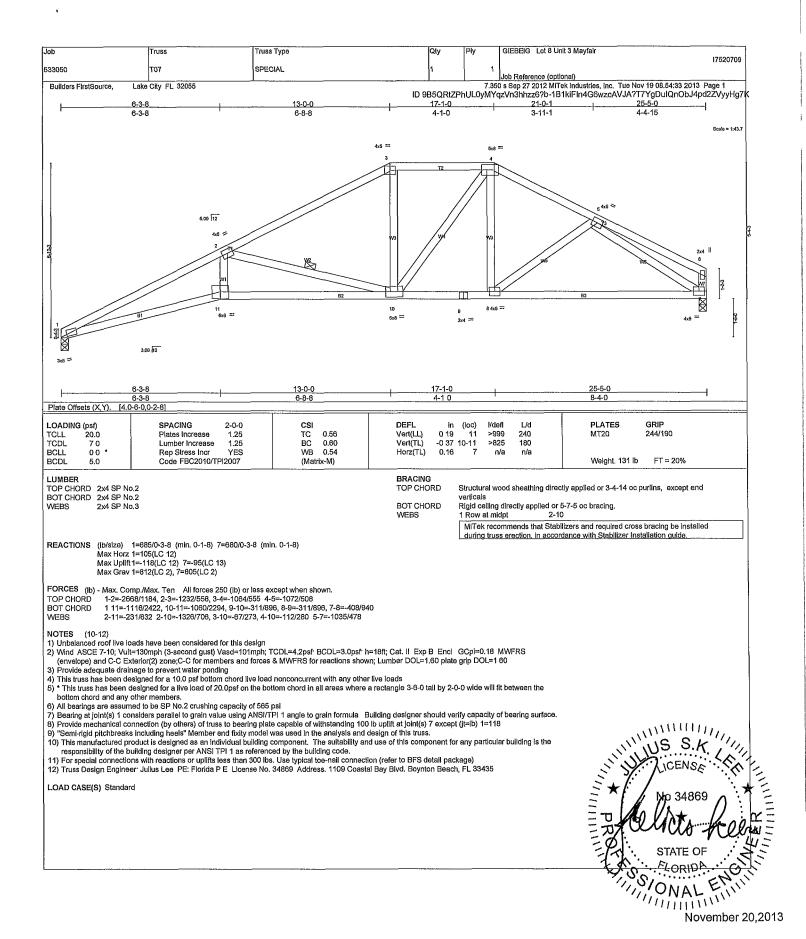
WARNING Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 BEFORE USE.

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Julius Lee PE 1109 Coastal Bay Boynton Beach FL 33435







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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 of Applicability of design paramenters and proper incorporation of component is responsibility of building designer on truss designer Bracking 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 bracking of the overall structure is the responsibility of the building designer for general guidance regarding fabrication, quality control, storage, delivery erection and bracking, consult. ANI/THI 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

GIEBEIG - Lot 8 Unit 3 Mayfair Truss Type Job russ 17520711 MONO HIP T09 533050 Job Reference (optional)
7.350 s Sep 27 2012 MiTek Industries Inc. Tue Nov 19 08:54.36 2013 Page 1
ID-9B5QRtZPhUL0yMYqzVn3hhzz6?b-RmjsKHKfNBUVq3v4\_IYAlAlfwWOGbs3XVbGD6GyHg7H Builders FirstSource Lake City FL 32055 24-9-0 30-1-0 12-4-0 18-6-7 -2-0-0 7-0-0 2-0-0 7-0-0 5-4-0 6-2-7 6-2-9 5-4-0 Scale = 1:54.3 6.00 12 31 27 10 28 7x8 = 4x5 = 14-8-12 7-0-0 7-8-12 [2:0-10-4,0-1-9], [5:0-4-0,0-3-4], [8:Edge,0-4-4], [10:0-4-0,0-4-8] Plate Offsets (X,Y). SPACING DEFL PLATES GRIP LOADING (psf) 2-0-0 CSI (loc) l/defl L/d TCLL TCDL Plates Increase 1.25 TC BC Vert(LL) 0.29 10-11 >999 240 MT20 244/190 20,0 70 Lumber Increase 1.25 0.81 Vert(TL) -0.45 10 >792 180 WB 0.86 0.12 NO BCLL 00 Rep Stress Incr Horz(TL) n/a n/a BCDL Code FBC2010/TPI2007 (Matrix-M) Weight: 173 lb FT = 20% BRACING TOP CHORD LUMBER Structural wood sheathing directly applied or 2-0-11 oc purlins, except end TOP CHORD 2x4 SP No.2 \*Except\* T1 2x4 SP No.1 BOT CHORD Rigid ceiling directly applied or 5-1 15 oc bracing BOT CHORD 2x6 SP No.2 WEBS 2 X 6 SYP No.2 6-8 WEBS Fasten (2X) T and I braces to narrow edge of web with 10d (0.131 'x3") nails, 6in o.c. with 3in minimum end distance. Brace must cover 90% of web length MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guide REACTIONS (lb/size) 8=1517/0-3-8 (min 0-2-2) 2=1507/0-3-8 (min. 0-2-2) Max Horz 2=116(LC 8)
Max Uplift8=-885(LC 5) 2=-846(LC 8)

Max Grav 8=1796(LC 2) 2=1786(LC 2)

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

2-3=-3376/1804, 3-14=-2991/1654, 14-15=-2991/1654 4-15=-2991/1654 4-16=-3883/2009, 16-17=-3883/2009 17 18=-3883/2009, 5-18=-3883/2009 5-19=-2912/1462 19-20=-2912/1462 TOP CHORD

20-21=-2912/1462, 6-21=-2912/1462

2-11=-1631/2950, 11-25=-2015/3875 25-26=-2015/3875, 26-27=-2015/3875, 10-27=-2015/3875, 10-28=-1878/3731 26-29=-1878/3731 29-30=-1878/3731, 30-31=-1878/3731 9-31=-1878/3731 BOT CHORD

WEBS

NOTES (12-14)

Unbalanced roof live loads have been considered for this design

2) Wind ASCE 7 10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4 2psf BCDL=3.0psf h=18ft; Cat. II Exp B Encl , GCpl=0.18, MWFRS (envelope) 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 (jt=lb) 8=885, 2=846.

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

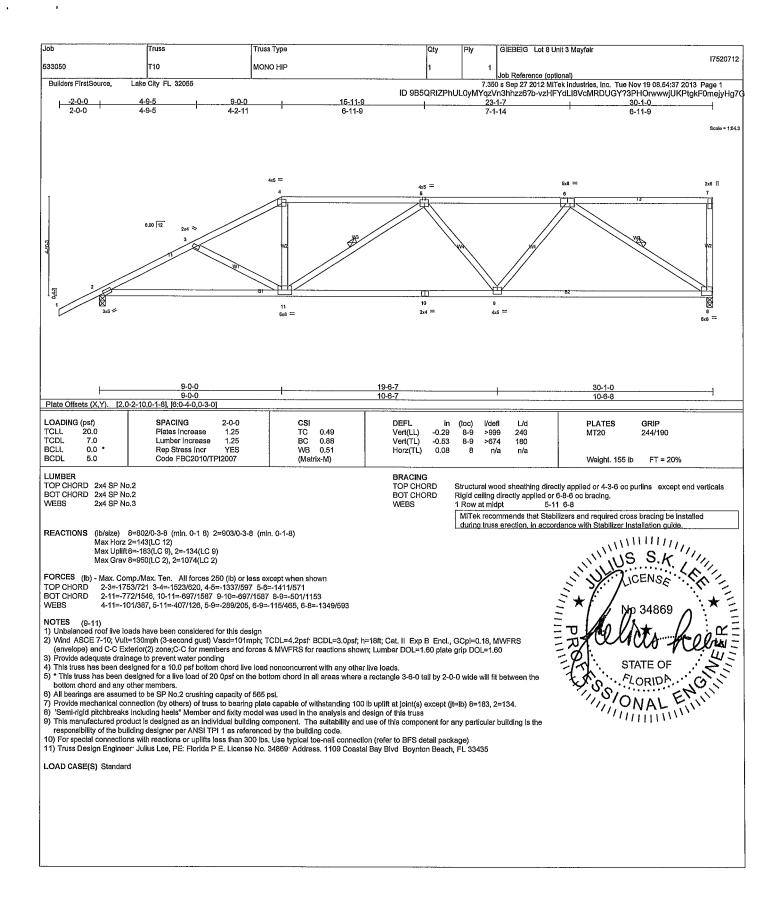
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) f163 lb down and 204 lb up at 7-0-0, 85 lb down and 72 lb up at 9-0-12 85 lb down and 72 lb up at 11-0-12 85 lb down and 72 lb up at 13-0-12 85 lb down and 72 lb up at 15-0-12, 85 lb down and 72 lb up at 17-0-12, 85 lb down and 72 lb up at 18-0-12, 85 lb down and 80 lb up at 18-0-12, 85 lb down and 80 lb up at 18-0-12, 85 lb down and 80 lb up at 18-0-12, 85 lb down and 80 lb up at 18-0-12, 85 lb down and 80 lb up at 18-0-12, 85 lb up at 18-0-12, 8 25-0-12, and 85 lb down and 72 lb up at 27-0-12, and 85 lb down and 72 lb up at 29-0-12 on top chord and 258 lb down and 286 lb up at 7-0-0, 49 lb down and 44 lb up at 9-0-12, 49 lb down and 44 lb up at 11-0-12, 49 lb down and 44 lb up at 13-0-12, 49 lb down and 44 lb up at 15-0-12 49 lb down and 44 lb up at 17-0-12, 49 lb down and 44 lb up at 19-0-12, 49 lb down and 44 lb up at 21-0-12, 49 lb down and 44 lb up at 25-0-12, and 49 lb down and 44 lb up at 25-0-12, and 49 lb down and 44 lb up at 25-0-12 on bottom chord The design/selection of such connection device(s) is the responsibility of others.

DR 34 Novem Novem

November 20,2013

MARNING 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 leads in its based only upon parameters shown, and is for an individual buliding 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 individual permanent bracing of the overall structure is the responsibility of the individual permanent bracing, of the overall structure is the responsibility of the individual permanent bracing, delivery erection and bracing, consult ANSI/TP11 Quality Criteria, DSB-89 and BCS11 Building Component Safety Intermation available from Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53719

Julius Lee PE. 1109 Coastal Bay Boynton Beach FL 33435



Job GIEBEIG Lot 8 Unit 3 Mayfair Truss Truss Type Qty 17520714 533050 T12 SPECIAL Job Reference (optional) 7 350 s Sep 27 2012 MiTek Industries, Inc. Tue Nov 19 08.54:40 2013 Page 1
ID 9B5QRtZPhUL0yMYqzVn3hhzz6?b-JXyNAeNARQ\_xJgDrD8d6v0TNh7mrXks6QDEQF2yHg7t0
20-1-0 22-3-8 26-0-10 30-1-0 Builders FirstSource Lake City FL 32055 -2-0-0 6-3-8 13-0-0 2-0-0 6.00 12 4x5 = 3.00 12 2x4 | 5x8 6-3-8 [3:0-3-0,0-3-0], [4.0-5-8,0-2-4], [16:0-2-0,0-0-0] Plate Offsets (X,Y). LOADING (psf) TCLL 20.0 CSI TC SPACING 2-0-0 DEFL **PLATES** GRIP Plates Increase 1.25 0.72 0.26 14-15 240 244/190 Vert(LL) >999 MT20 1.25 BC WB TCDL 70 Lumber Increase 0.77 Vert(TL) -0.50 14-15 180 >721 0.0 BCLL YES Rep Stress Incr 0.62 Horz(TL) 0,29 n/a n/a BCDL Code FBC2010/TPI2007 Weight, 175 lb FT = 20% LUMBER BRACING Structural wood sheathing directly applied or 3-0-0 oc purilins, except end verticals. Rigid ceiling directly applied or 5-3-14 oc bracing Except: 9-5-0 oc bracing 10-12 TOP CHORD 2x4 SP No.2 TOP CHORD BOT CHORD 2x4 SP No.2 \*Except\* BOT CHORD B4, 2x4 SP No.3 2x4 SP No.3 \*Except\* WEBS WEBS 1 Row at midpt 3-14, 4-13 W9 2x4 SP No.2 MiTek recommends that Stabilizers and required cross bracing be installed during truss erection, in accordance with Stabilizer Installation guid REACTIONS (lb/size) 2=903/0-3-8 (min 0-1-8) 9=809/0-3-8 (min. 0-1-8) Max Horz 2=113(LC 12) Max Uplift2=-158(LC 12) 9=-111(LC 13) Max Grav 2=1074(LC 2) 9=958(LC 2) FORCES (Ib) Max. Comp./Max. Ten - All forces 250 (Ib) or less except when shown.

TOP CHORD
BOT CHORD
BOT CHORD

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

2-3=-3218/1364, 3-4=-1659/720, 4-5=-1316/640, 5-8=-1460/679, 6-7=-1573/699

2-15=-1239/2910, 14-15=-1170/2735, 13-14=-493/1419

12-13=-498/1361, 10-12=-345/658, 9-10=-386/928 3-15=-257/738, 3-14=-1394/706 4-14=-143/465, 4-13=-281/78 5-13=-142/377 7-12=-558/1427 7-10=-1139/527 7-9=-1198/511 WERS 1) Unbalanced roof live loads have been considered for this design DRA SA 2) Wind ASCE 7-10 Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf h=18ft; Cat. II Exp B, Encl GCpi=0.18, MWFRS (envelope) 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 and 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula Building designer should verify capacity of bearing surface 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=158 9=111 9) "Semi-rigid pitchbreaks including heels Member end fixity model was used in the analysis and design of this truss 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) For special connections with reactions or uplifts less than 300 lbs. Use typical toe-nall connection (refer to BFS detail package) 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

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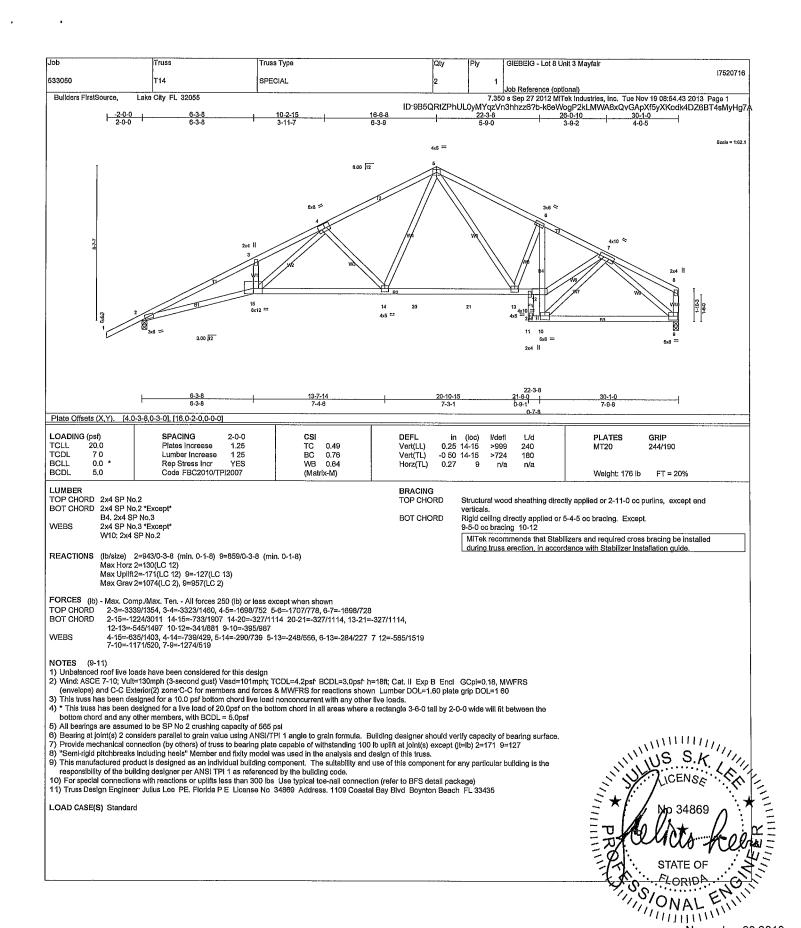
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1109 Coastal Bay Boynton Beach FL 33435

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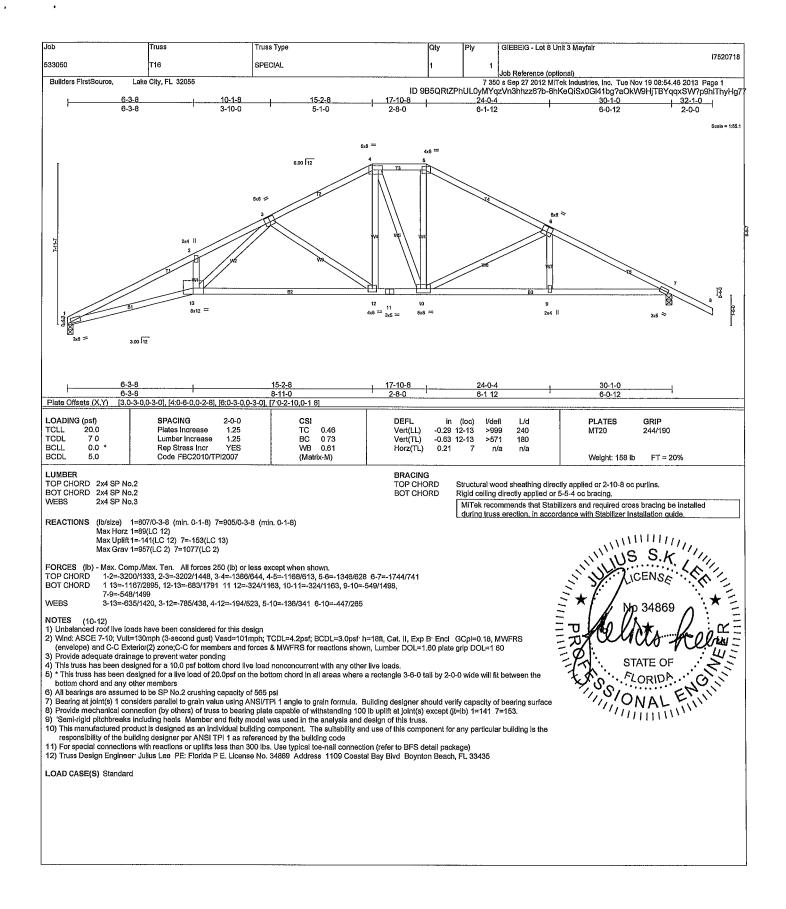
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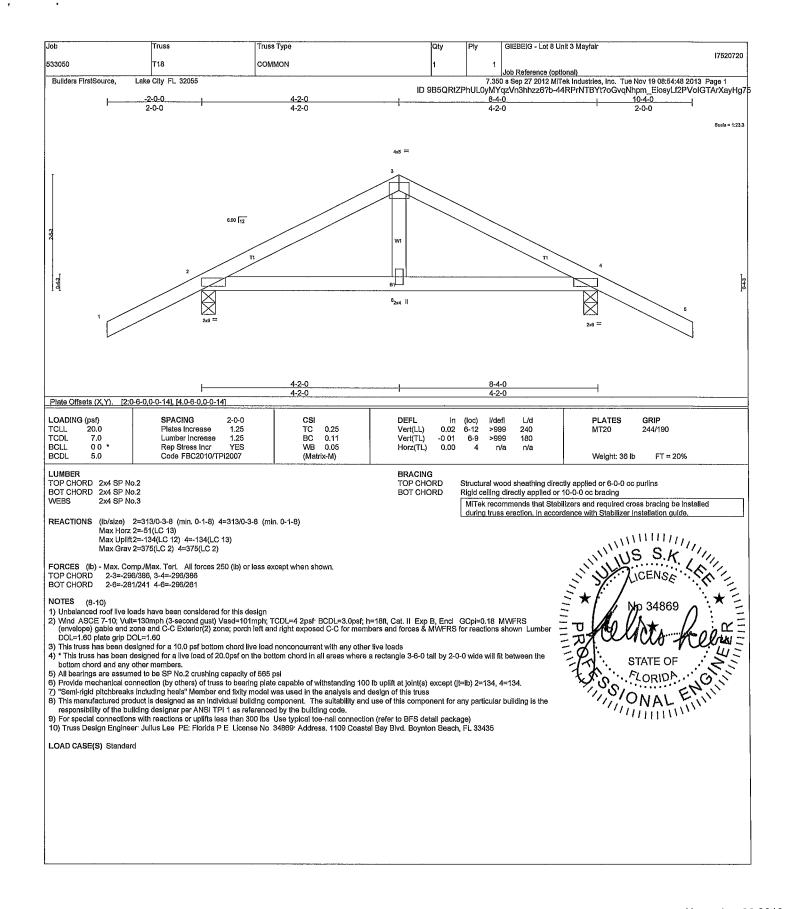
Julius Lee PF

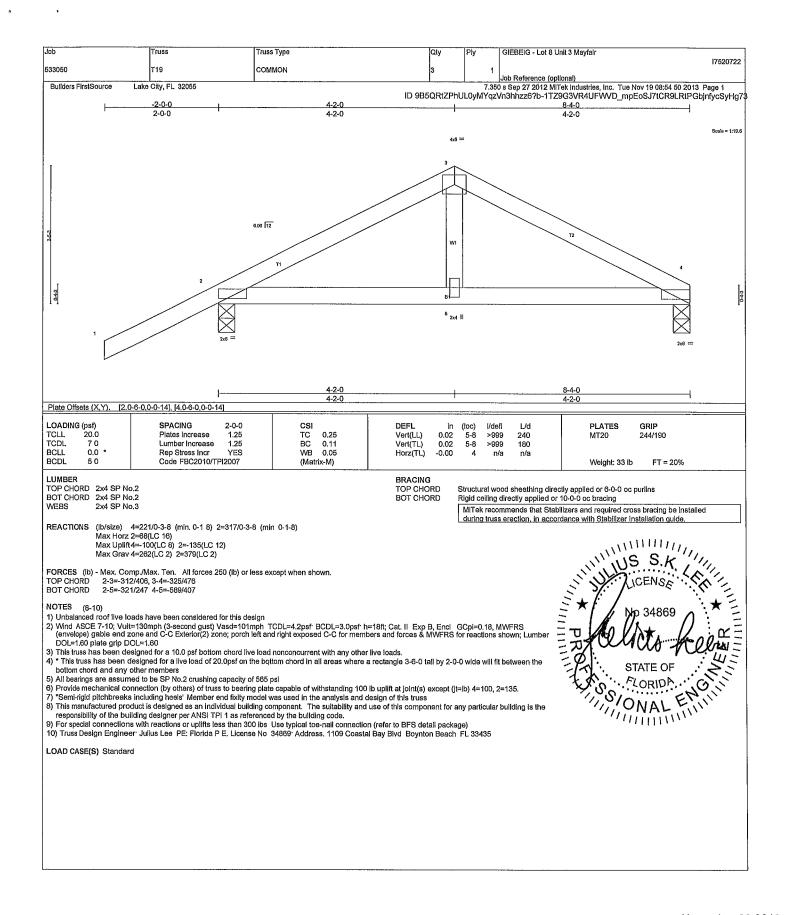


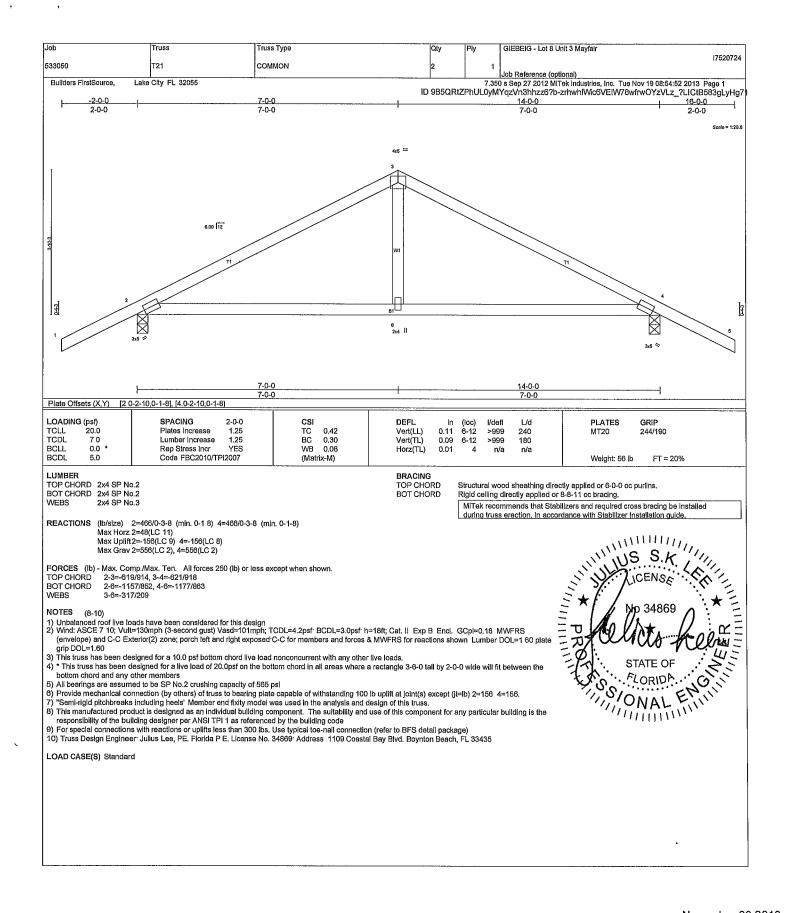
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Julius Lee PE. 1109 Coastal Bay Boynton Beach FL 33435





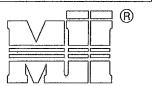




## August 10, 2010

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

ST - T-BRACE 2



MiTek Industries, Inc.

Nails:

MiTek Industries, Chesterfield, MO

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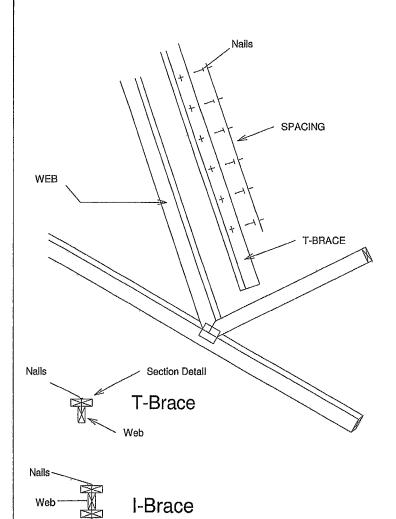
Note: T-Bracing / I-Bracing to be used when continuous lateral bracing is impractical. T-Brace / I-Brace must cover 90% of web length.

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

N	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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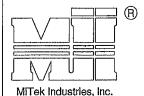
### **JANUARY 1, 2009**

### LATERAL TOE-NAIL DETAIL

ST-TOENAIL SP

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NOTES

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

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

	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

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

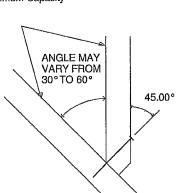
For load duration increase of 1.15:

ANGLE MAY VARY FROM

30°TO 60°

3 (nails) X 84 5 (lb/nail) X 1 15 (DOL) = 291 5 lb Maximum Capacity

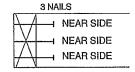
45.00°



THIS DETAIL APPLICABLE TO THE THREE END DETAILS SHOWN BELOW

VIEWS SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY

SIDE VIEW



ANGLE MAY

**VARY FROM** 



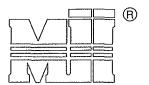
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#### **FEBRUARY 14, 2012**

#### 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

**DURATION OF LOAD INCREASE: 1.60** 

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

A - PIGGBACK TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING SHALL BE CONNECTED TO EACH PURLIN WITH (2) 0.131" X 3.5" TOE NAILED
B - BASE TRUSS, REFER TO MITEK TRUSS DESIGN DRAWING.
C - PURLING ST EACH BASE TRUSS JOINT AND A MAXIMUM 24" O.C. UNLESS SPECIFIED CLOSER ON MITEK TRUSS DESIGN DRAWING. CONNECT TO BASE TRUSS WITH (2) 0.131" X 3.5" NAILS EACH D - 2 X \_ X 4".0" SCAB, SIZE 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

DIRECTIONS AND

1 WIND SPEED OF 116 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.

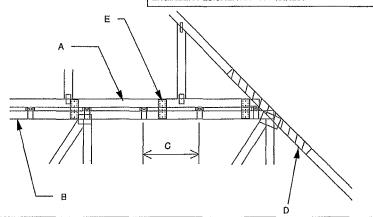
E - FOR WIND SPEEDS BETWEEN 126 AND 160 MPH, ATTACH

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

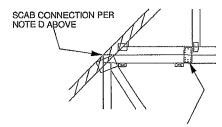
OPPOSING FACES ENSURE 0.5" EDGE DISTANCE.

(MIN. 2 PAIRS OF PLATES REQ. REGARDLESS OF SPAN)

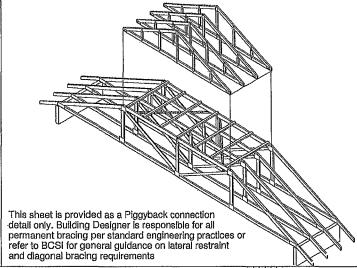


#### WHEN NO GAP BETWEEN PIGGYBACK AND BASE TRUSS EXISTS:

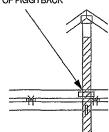
REPLACE TOE NAILING OF PIGGYBACK TRUSS TO PURLINS WITH NaII-ON PLATES AS SHOWN, AND INSTALL PURLINS TO BOTTOM EDGE OF BASE TRUSS TOP CHORD AT SPECIFIED SPACING SHOWN ON BASE TRUSS MITEK DESIGN DRAWING



FOR ALL WIND SPEEDS, ATTACH MITEK 3X6 20 GA Nail-On PLATES TO EACH FACE OF TRUSSES AT 48" O C. W/ (4) 0.131" X 1 5" PER MEMBER. STAGGER NAILS FROM OPPOSING FACES ENSURE 0 5" EDGE DISTANCE



VERTICAL WEB TO EXTEND THROUGH BOTTOM CHORD OF PIGGYBACK



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

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

ATTACH 2 X X 4-0" SCAB TO EACH FACE OF TRUSS ASSEMBLY WITH 2 ROWS OF 10d (0.131" X 3") NAILS SPACED 4" O C. FROM EACH FACE (SIZE AND GRADE TO MATCH VERTICAL WEBS OF PIGGYBACK AND BASE TRUSS.)

(MINIMUM 2X4)
THIS CONNECTION IS ONLY VALID FOR A MAXIMUM
CONCENTRATED LOAD OF 4000 LBS (@1.16). REVIEW
BY A QUALIFIED ENGINEER IS REQUIRED FOR LOADS GREATER THAN 4000 LBS.

GHEATEH THAN 4000 LBS.
FOR PIGGYBACK TRUSSES CARRYING GIRDER LOADS,
NUMBER OF PLYS OF PIGGYBACK TRUSS TO MATCH BASE TRUSS.
CONCENTRATED LOAD MUST BE APPLIED TO BOTH
THE PIGGYBACK AND THE BASE TRUSS DESIGN

No 34869

No 348 1109 COASTAL BAY

BOYNTON BC, FL 33435

