

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: Jackson\_FL  
Lamco Custom Homes

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource (Albermarle,NC).

Pages or sheets covered by this seal: E12988361 thru E12988371

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844



May 1, 2019

---

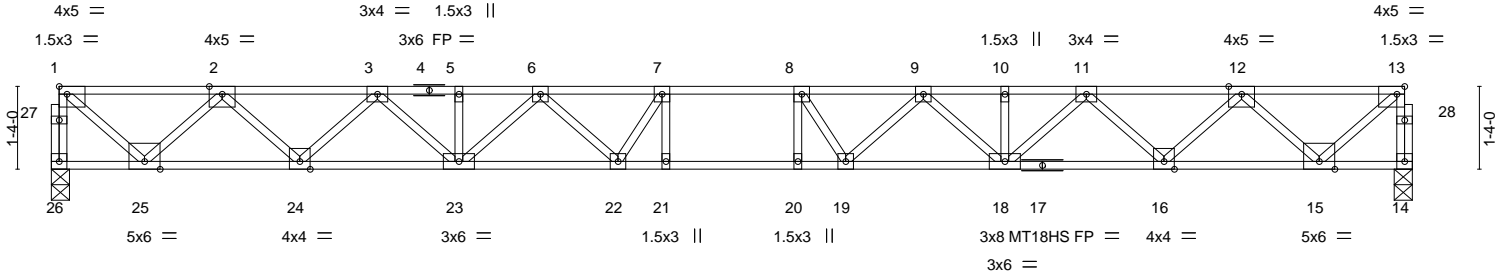
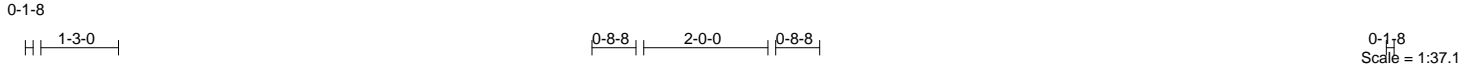
Gilbert, Eric

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

|                   |             |                     |          |          |  |           |
|-------------------|-------------|---------------------|----------|----------|--|-----------|
| Job<br>Jackson_FL | Truss<br>F1 | Truss Type<br>Floor | Qty<br>3 | Ply<br>1 | Lamco Custom Homes<br>Job Reference (optional) | E12988361 |
|-------------------|-------------|---------------------|----------|----------|--|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:01 2019 Page 1  
ID:TzqElGM?vNsmIVtkhYcdyxr\_7-A93OAT51b8JvA5YCfcCEdNsNBdEJ6HU?iZkP8ZzKvii



|        |         |         |         |
|--------|---------|---------|---------|
| 9-11-8 | 10-11-8 | 11-11-8 | 21-11-0 |
| 9-11-8 | 1-0-0   | 1-0-0   | 9-11-8  |

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [13:0-1-8,Edge]

|                      |                      |       |             |              |          |        |      |                |                 |
|----------------------|----------------------|-------|-------------|--------------|----------|--------|------|----------------|-----------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> | in (loc) | l/defl | L/d  | <b>PLATES</b>  | <b>GRIP</b>     |
| TCLL 40.0            | Plate Grip DOL       | 1.00  | TC 0.79     | Vert(LL)     | -0.47    | 20-21  | >558 | MT20           | 244/190         |
| TCDL 10.0            | Lumber DOL           | 1.00  | BC 0.76     | Vert(CT)     | -0.64    | 20-21  | >405 | MT18HS         | 244/190         |
| BCLL 0.0             | Rep Stress Incr      | YES   | WB 0.76     | Horz(CT)     | 0.09     | 14     | n/a  |                |                 |
| BCDL 5.0             | Code IRC2015/TPI2014 |       | Matrix-S    |              |          |        |      |                |                 |
|                      |                      |       |             |              |          |        |      | Weight: 115 lb | FT = 20%F, 11%E |

|  |   |
|--|---|
| <b>LUMBER-</b>   | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2(flat)  | TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except*<br>14-17: 2x4 SP No.1(flat) | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SP No.3(flat)   |   |

**REACTIONS.** (lb/size) 26=1185/0-3-8, 14=1185/0-3-8

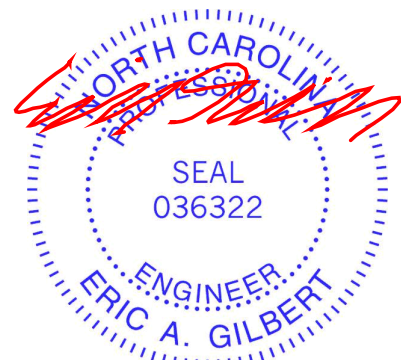
**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 1-26=-1179/0, 13-14=-1180/0, 1-2=-1229/0, 2-3=-3110/0, 3-5=-4452/0, 5-6=-4452/0, 6-7=-5160/0, 7-8=-5303/0, 8-9=-5160/0, 9-10=-4453/0, 10-11=-4453/0, 11-12=-3110/0, 12-13=-1230/0

BOT CHORD 24-25=0/2322, 23-24=0/3871, 22-23=0/4911, 21-22=0/5303, 20-21=0/5303, 19-20=0/5303, 18-19=0/4911, 16-18=0/3871, 15-16=0/2322

WEBS 7-21=-305/332, 8-20=-305/332, 1-25=0/1588, 2-25=-1519/0, 2-24=0/1096, 3-24=-1059/0, 3-23=0/790, 6-23=-624/0, 6-22=0/539, 7-22=-663/215, 13-15=0/1588, 12-15=-1520/0, 12-16=0/1096, 11-16=-1058/0, 11-18=0/791, 9-18=-623/0, 9-19=0/539, 8-19=-663/215

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are MT20 plates unless otherwise indicated.
  - 3) All plates are 3x3 MT20 unless otherwise indicated.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



May 1, 2019

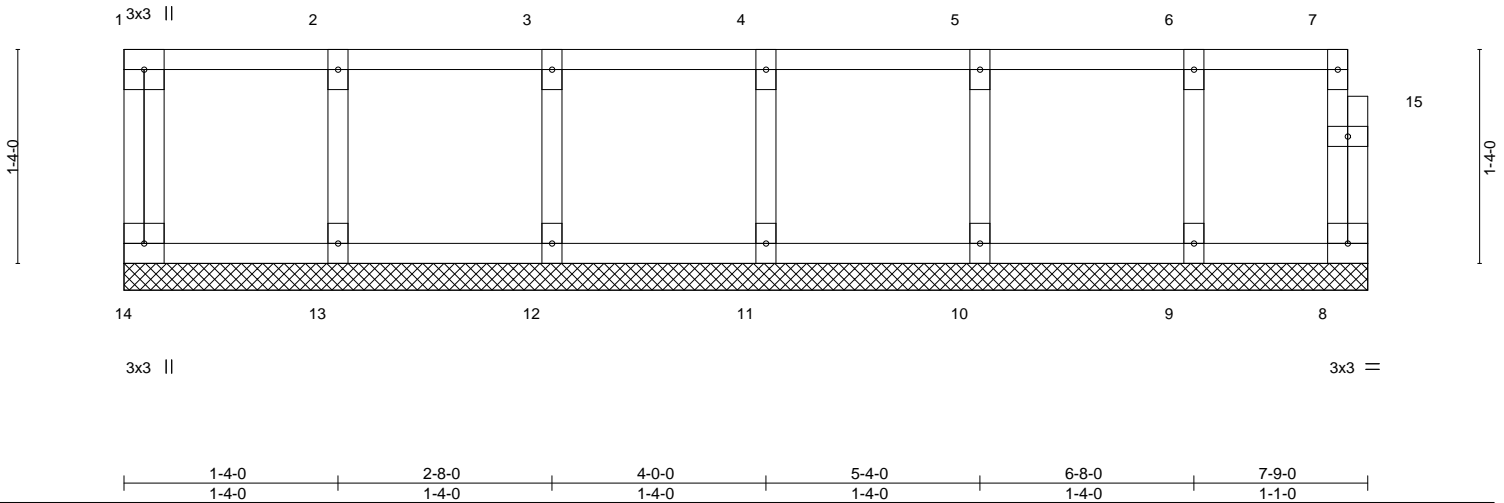
|                   |              |                     |          |          |  |           |
|-------------------|--------------|---------------------|----------|----------|--|-----------|
| Job<br>Jackson_FL | Truss<br>F2E | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Lamco Custom Homes<br>Job Reference (optional) | E12988362 |
|-------------------|--------------|---------------------|----------|----------|--|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:05 2019 Page 1  
ID:TzqEigM?vNsmIViTkYcdxyrx\_7-3wlu0q8XfMpLiszuRHANd0EKEmx2GobnBI1HKzKvle

0:1-8

Scale = 1:14.4



| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP            |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|-----------------|
| TCLL 40.0     | Plate Grip DOL       | 1.00  | TC 0.08  | Vert(LL) | n/a      | -      | n/a | MT20          | 244/190         |
| TCDL 10.0     | Lumber DOL           | 1.00  | BC 0.01  | Vert(CT) | n/a      | -      | n/a |               |                 |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.03  | Horz(CT) | 0.00     | 8      | n/a |               |                 |
| BCDL 5.0      | Code IRC2015/TPI2014 |       | Matrix-R |          |          |        |     | Weight: 37 lb | FT = 20%F, 11%E |

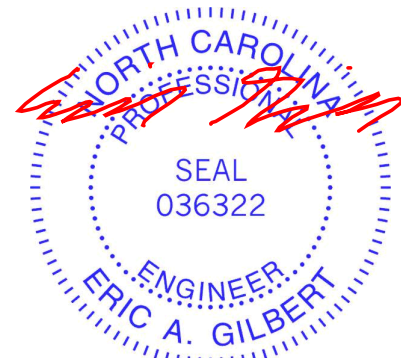
**LUMBER-**  
TOP CHORD 2x4 SP No.2(flat)  
BOT CHORD 2x4 SP No.2(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 7-9-0.  
(lb) - Max Grav All reactions 250 lb or less at joint(s) 14, 8, 13, 12, 11, 10, 9

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

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 6) CAUTION, Do not erect truss backwards.



May 1, 2019

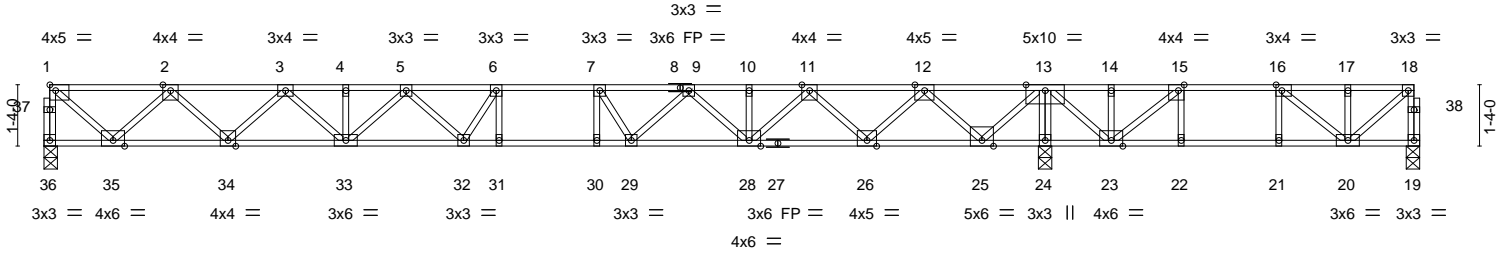
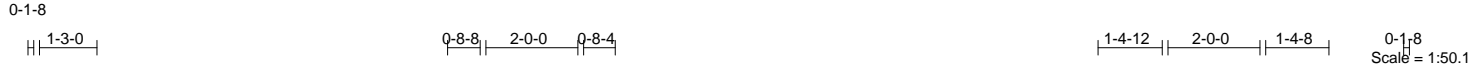
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

|                   |             |                     |          |          |                    |           |
|-------------------|-------------|---------------------|----------|----------|--------------------|-----------|
| Job<br>Jackson_FL | Truss<br>F3 | Truss Type<br>Floor | Qty<br>6 | Ply<br>1 | Lamco Custom Homes | E12988363 |
|-------------------|-------------|---------------------|----------|----------|--------------------|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:07 2019 Page 1  
ID:TzqElgM?vNsmIvITkhYcdxyrx\_7~?JQfRW9oB\_43u0?M0sJese5Ny2ETW\_tuFVn8MDzKvlc



|                       |  |
|-----------------------|--|
| Plate Offsets (X,Y)-- | [1:Edge,0-1-8], [15:0-1-8,Edge], [16:0-1-8,Edge] |
|-----------------------|--|

|                      |                      |       |             |              |          |        |      |               |                                |
|----------------------|----------------------|-------|-------------|--------------|----------|--------|------|---------------|--------------------------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> | in (loc) | l/defl | L/d  | <b>PLATES</b> | <b>GRIP</b>                    |
| TCLL 40.0            | Plate Grip DOL       | 1.00  | TC 0.84     | Vert(LL)     | -0.37    | 31     | >707 | 480           | MT20                           |
| TCDL 10.0            | Lumber DOL           | 1.00  | BC 0.91     | Vert(CT)     | -0.50    | 31     | >516 | 360           | 244/190                        |
| BCLL 0.0             | Rep Stress Incr      | NO    | WB 0.83     | Horz(CT)     | 0.06     | 24     | n/a  | n/a           |                                |
| BCDL 5.0             | Code IRC2015/TPI2014 |       | Matrix-S    |              |          |        |      |               |                                |
|                      |                      |       |             |              |          |        |      |               | Weight: 159 lb FT = 20%F, 11%E |

|  |  |
|--|--|
| <b>LUMBER-</b>   | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP 2400F 2.0E(flat) *Except*<br>1-8: 2x4 SP No.1(flat)   | TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP 2400F 2.0E(flat) *Except*<br>19-27: 2x4 SP No.1(flat) | BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.                                    |
| WEBS 2x4 SP No.3(flat)   |  |

**REACTIONS.** (lb/size) 36=1070/0-3-8, 19=324/0-3-8, 24=2057/0-3-8  
Max Grav 36=1079(LC 10), 19=538(LC 4), 24=2057(LC 1)

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

TOP CHORD 1-36=1073/0, 18-19=539/0, 1-2=1108/0, 2-3=-2769/0, 3-4=-3881/0, 4-5=-3881/0, 5-6=-4358/0, 6-7=-4349/0, 7-9=-4059/0, 9-10=-3126/0, 10-11=-3126/0, 11-12=-1553/0, 12-13=0/776, 13-14=0/1572, 14-15=0/1572, 15-16=-397/783, 16-17=-359/160, 17-18=-359/160

BOT CHORD 34-35=0/2091, 33-34=0/3419, 32-33=0/4240, 31-32=0/4349, 30-31=0/4349, 29-30=0/4349, 28-29=0/3678, 26-28=0/2429, 25-26=0/648, 24-25=-2079/0, 23-24=-2079/0, 22-23=-783/397, 21-22=-783/397, 20-21=-783/397

WEBS 6-31=-402/159, 7-30=-136/434, 15-22=0/298, 16-21=-257/0, 13-24=-1970/0, 1-35=0/1431, 2-35=-1367/0, 2-34=0/943, 3-34=-904/0, 3-33=0/629, 5-33=-488/0, 5-32=-70/381, 6-32=-403/387, 13-25=0/1735, 12-25=-1656/0, 12-26=0/1281, 11-26=-1240/0, 11-28=0/969, 9-28=-768/0, 9-29=0/666, 7-29=-839/0, 13-23=0/855, 15-23=-1287/0, 18-20=-216/441, 17-20=-341/0, 16-20=-49/799

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 4) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (plf)  
Vert: 19-36=-10, 1-18=-100

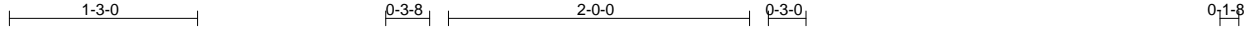
Concentrated Loads (lb)  
Vert: 18=-200



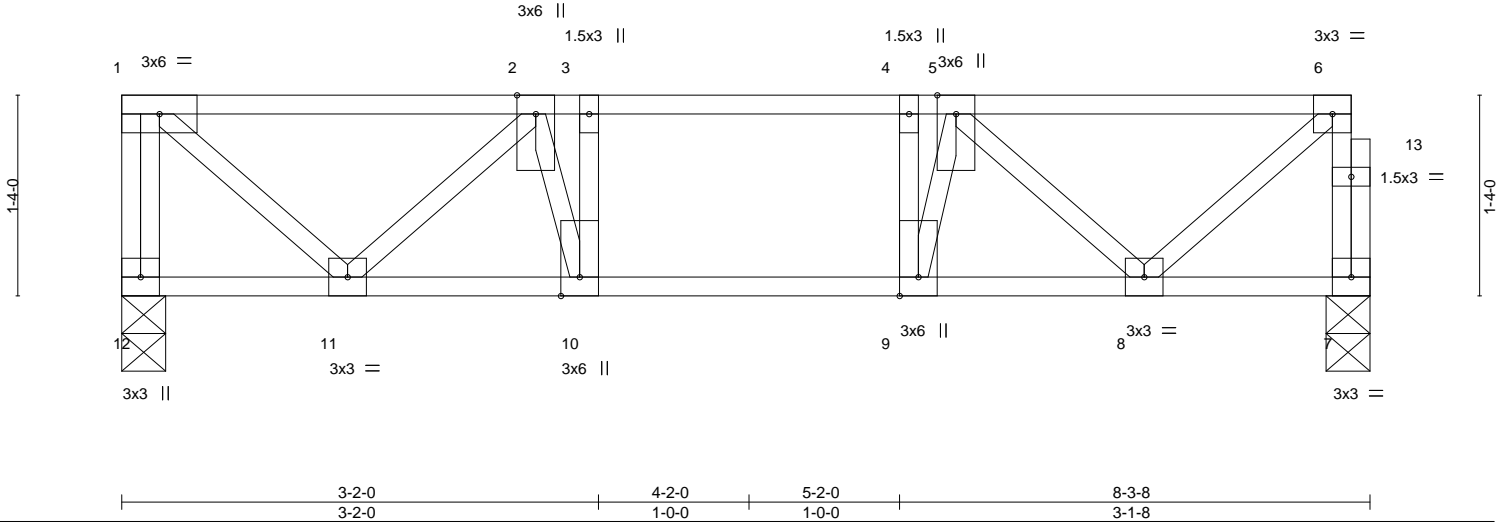
|                   |             |                     |          |          |                    |           |
|-------------------|-------------|---------------------|----------|----------|--------------------|-----------|
| Job<br>Jackson_FL | Truss<br>F4 | Truss Type<br>Floor | Qty<br>1 | Ply<br>1 | Lamco Custom Homes | E12988364 |
|-------------------|-------------|---------------------|----------|----------|--------------------|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:07 2019 Page 1  
ID:TzqElGm?vNsmIVtkhYcdxyrx\_7-?JQfRW9oB\_43u0?M0sJese5V52OLW72uFVn8MDzKvlc



Scale = 1:15.3



| LOADING (psf) | SPACING-             | CSI.     | DEFL.                      | PLATES        | GRIP            |
|---------------|----------------------|----------|----------------------------|---------------|-----------------|
| TCLL 40.0     | 2-0-0                | TC 0.38  | in (loc) l/defl L/d        | MT20          | 244/190         |
| TCDL 10.0     | Plate Grip DOL 1.00  | BC 0.27  | Vert(LL) -0.02 10 >999 480 |               |                 |
| BCLL 0.0      | Lumber DOL 1.00      | WB 0.24  | Vert(CT) -0.03 10 >999 360 |               |                 |
| BCDL 5.0      | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.01 7 n/a n/a    |               |                 |
|               | Code IRC2015/TPI2014 |          |                            | Weight: 47 lb | FT = 20%F, 11%E |

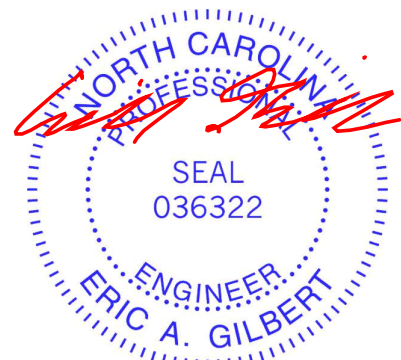
**LUMBER-**  
 TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)

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

**REACTIONS.** (lb/size) 12=442/0-3-8, 7=436/0-3-8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-12=-436/0, 6-7=-430/0, 1-2=-378/0, 2-3=-709/0, 3-4=-709/0, 4-5=-709/0, 5-6=-379/0  
 BOT CHORD 10-11=0/705, 9-10=0/709, 8-9=0/703  
 WEBS 3-10=-262/109, 4-9=-289/116, 1-11=0/503, 2-11=-455/0, 2-10=-126/324, 6-8=0/484, 5-8=-452/0, 5-9=-131/349

- NOTES-**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 3) CAUTION, Do not erect truss backwards.



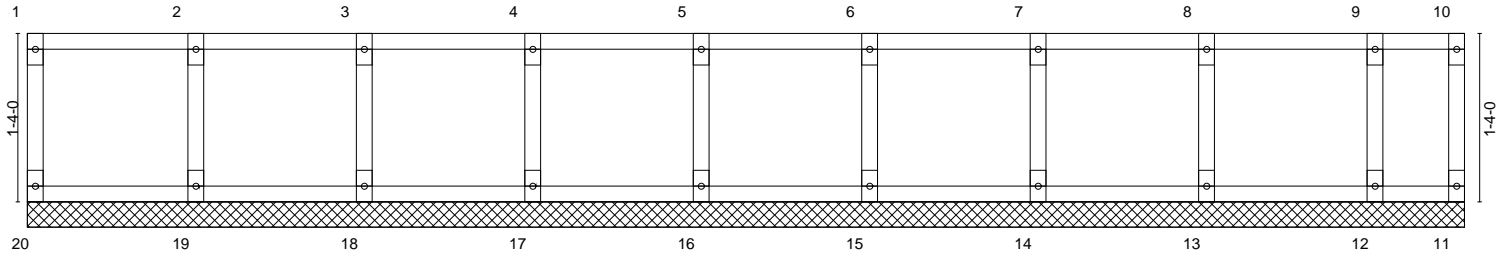
May 1, 2019

|            |       |                       |     |     |                          |           |
|------------|-------|-----------------------|-----|-----|--------------------------|-----------|
| Job        | Truss | Truss Type            | Qty | Ply | Lamco Custom Homes       | E12988365 |
| Jackson_FL | F5E   | Floor Supported Gable | 1   | 1   | Job Reference (optional) |           |

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:08 2019 Page 1  
ID:TzqElgM?vNsmIvITkhYcdxyrx\_7-TV\_1esAQyHCwW9aYzagtPrekYRodFdX1U9XhufzKvlb

Scale = 1:18.2



11-4-8  
11-4-8

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES        | GRIP            |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|---------------|-----------------|
| TCLL 40.0     | Plate Grip DOL       | 1.00  | TC 0.08  | Vert(LL) | n/a      | -      | n/a | MT20          | 244/190         |
| TCDL 10.0     | Lumber DOL           | 1.00  | BC 0.01  | Vert(CT) | n/a      | -      | n/a |               |                 |
| BCLL 0.0      | Rep Stress Incr      | YES   | WB 0.03  | Horz(CT) | 0.00     | 11     | n/a |               |                 |
| BCDL 5.0      | Code IRC2015/TPI2014 |       | Matrix-R |          |          |        |     | Weight: 50 lb | FT = 20%F, 11%E |

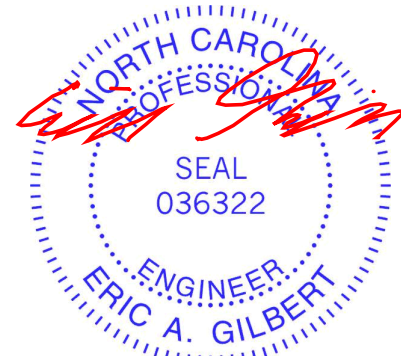
**LUMBER-**  
 TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 11-4-8.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 20, 11, 19, 18, 17, 16, 15, 14, 13, 12

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

- NOTES-**
- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
  - 2) Gable requires continuous bottom chord bearing.
  - 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 4) Gable studs spaced at 1-4-0 oc.
  - 5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

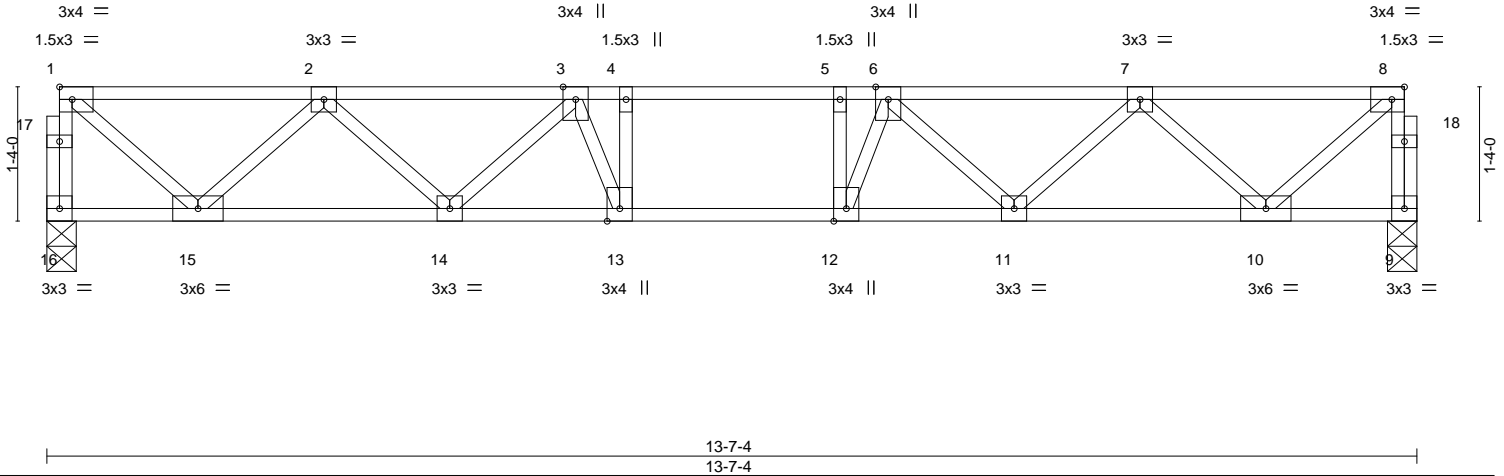
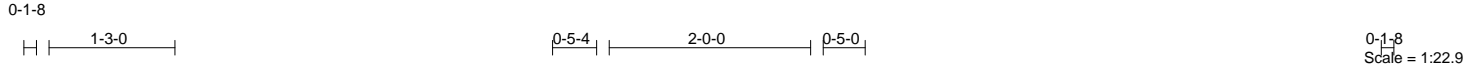


818 Soundside Road  
 Edenton, NC 27932

|                   |             |                     |          |          |  |           |
|-------------------|-------------|---------------------|----------|----------|--|-----------|
| Job<br>Jackson_FL | Truss<br>F6 | Truss Type<br>FLOOR | Qty<br>2 | Ply<br>1 | Lamco Custom Homes<br>Job Reference (optional) | E12988366 |
|-------------------|-------------|---------------------|----------|----------|--|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:09 2019 Page 1  
ID:TzqEIGM?vNsmIViTkYcdxyrx\_7-xiYPsCB2jbKm8J9k7HM6x3Bpwr\_7\_\_TBipGFQ5zKvIa



|                       |                      |                               |
|-----------------------|----------------------|-------------------------------|
| Plate Offsets (X,Y)-- | [8:0-1-8,Edge]       |                               |
| <b>LOADING</b> (psf)  | <b>SPACING-</b>      | <b>CSI.</b>                   |
| TCLL 40.0             | 2-0-0                | TC 0.49                       |
| TCDL 10.0             | Plate Grip DOL 1.00  | BC 0.64                       |
| BCLL 0.0              | Lumber DOL 1.00      | WB 0.44                       |
| BCDL 5.0              | Rep Stress Incr YES  | Matrix-S                      |
|                       | Code IRC2015/TP12014 |                               |
|                       |                      | <b>DEFL.</b>                  |
|                       |                      | in (loc) l/defl L/d           |
|                       |                      | Vert(LL) -0.09 13-14 >999 480 |
|                       |                      | Vert(CT) -0.12 13-14 >999 360 |
|                       |                      | Horz(CT) 0.03 9 n/a n/a       |
|                       |                      | <b>PLATES</b>                 |
|                       |                      | MT20                          |
|                       |                      | <b>GRIP</b>                   |
|                       |                      | 244/190                       |
|                       |                      | Weight: 72 lb FT = 20%F, 11%E |

|                             |   |
|-----------------------------|---|
| <b>LUMBER-</b>              | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2(flat) | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP No.2(flat) | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SP No.3(flat)      |   |

**REACTIONS.** (lb/size) 16=728/0-3-8, 9=728/0-3-8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-16=-724/0, 8-9=-724/0, 1-2=-712/0, 2-3=-1648/0, 3-4=-1997/0, 4-5=-1997/0, 5-6=-1997/0, 6-7=-1648/0, 7-8=-712/0  
 BOT CHORD 14-15=0/1333, 13-14=0/1940, 12-13=0/1997, 11-12=0/1940, 10-11=0/1333  
 WEBS 4-13=-352/68, 5-12=-363/72, 1-15=0/917, 2-15=-863/0, 2-14=0/438, 3-14=-406/0, 3-13=-121/467, 8-10=0/917, 7-10=-863/0, 7-11=0/438, 6-11=-407/0, 6-12=-124/477

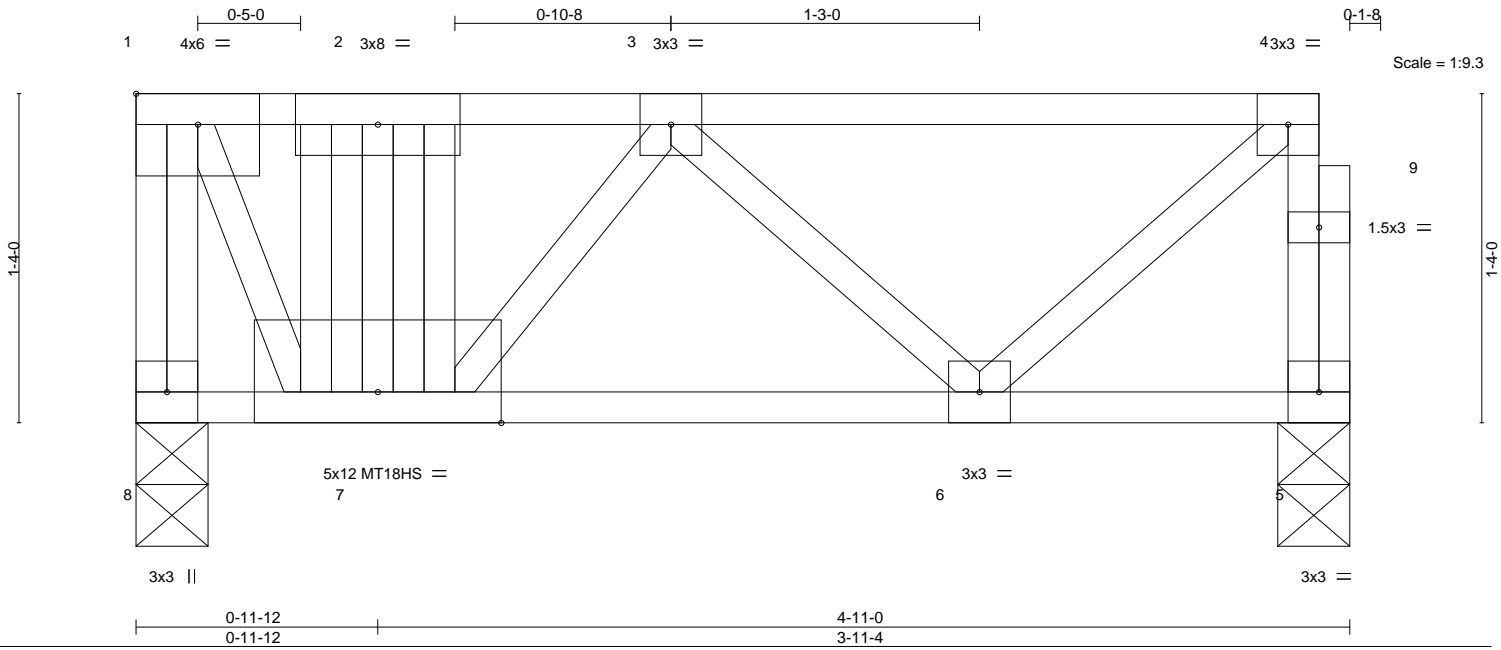
**NOTES-**  
 1) Unbalanced floor live loads have been considered for this design.  
 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



|                   |              |                            |          |          |                    |           |
|-------------------|--------------|----------------------------|----------|----------|--------------------|-----------|
| Job<br>Jackson_FL | Truss<br>F7G | Truss Type<br>Floor Girder | Qty<br>1 | Ply<br>1 | Lamco Custom Homes | E12988367 |
|-------------------|--------------|----------------------------|----------|----------|--------------------|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:09 2019 Page 1  
ID:TzqElgM?vNsmIVITkhYcdxyrx\_7-xiYPsCB2jbKm8J9k7HM6x3BqCr6J\_3OBipGFQ5zKvIa



| LOADING (psf) |      | SPACING-        |                 | CSI.     |      | DEFL.    |       |     |      | PLATES |     | GRIP          |                 |
|---------------|------|-----------------|-----------------|----------|------|----------|-------|-----|------|--------|-----|---------------|-----------------|
| TCLL          | 40.0 | Plate Grip DOL  | 1.00            | TC       | 0.41 | Vert(LL) | -0.00 | 7   | >999 | L/d    | 480 | MT20          | 244/190         |
| TCDL          | 10.0 | Lumber DOL      | 1.00            | BC       | 0.11 | Vert(CT) | -0.01 | 6-7 | >999 |        | 360 | MT18HS        | 244/190         |
| BCLL          | 0.0  | Rep Stress Incr | NO              | WB       | 0.12 | Horz(CT) | 0.00  | 5   | n/a  | n/a    |     |               |                 |
| BCDL          | 5.0  | Code            | IRC2015/TPI2014 | Matrix-P |      |          |       |     |      |        |     |               |                 |
|               |      |                 |                 |          |      |          |       |     |      |        |     | Weight: 37 lb | FT = 20%F, 11%E |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 4-11-0 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 8=257/0-3-8, 5=250/0-3-8

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-8=-256/0  
 BOT CHORD 6-7=0/291  
 WEBS 1-7=0/255

**NOTES-**  
 1) All plates are MT20 plates unless otherwise indicated.  
 2) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
 3) CAUTION, Do not erect truss backwards.



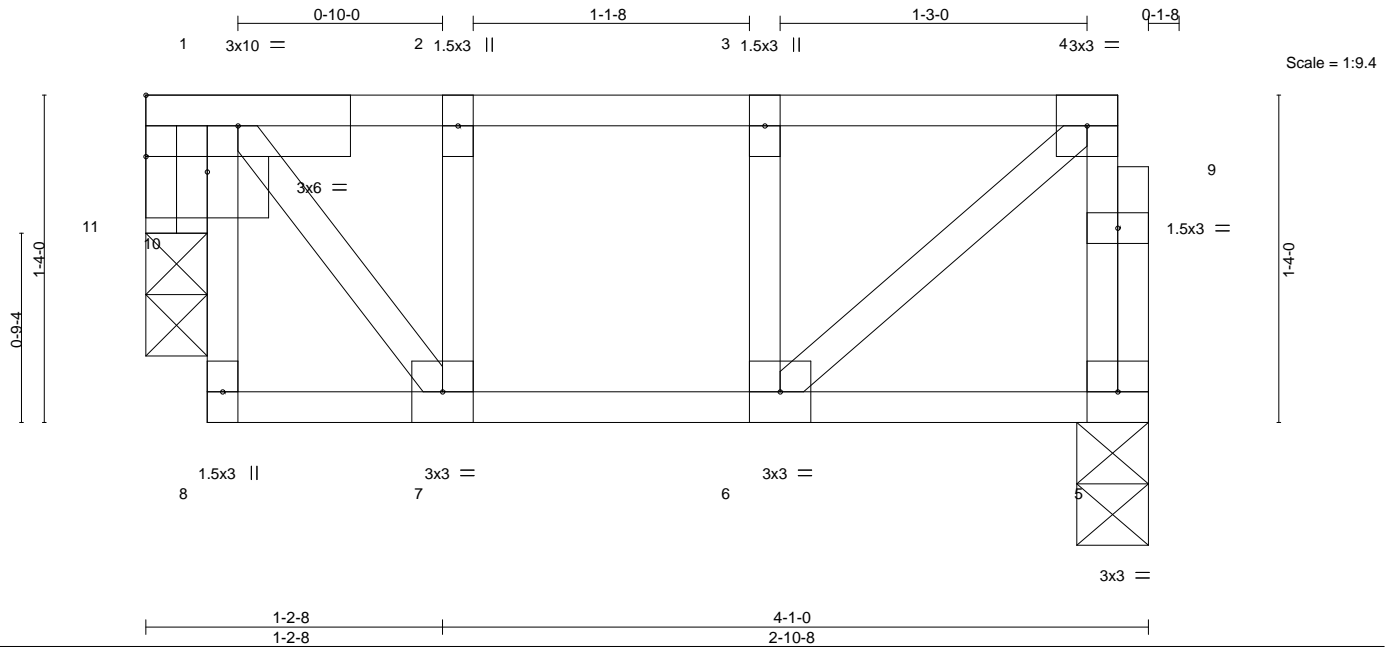
May 1, 2019



|                   |             |                     |          |          |                    |           |
|-------------------|-------------|---------------------|----------|----------|--------------------|-----------|
| Job<br>Jackson_FL | Truss<br>F8 | Truss Type<br>Floor | Qty<br>2 | Ply<br>1 | Lamco Custom Homes | E12988368 |
|-------------------|-------------|---------------------|----------|----------|--------------------|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:10 2019 Page 1  
ID:TzqElgM?vNsmIViTkYcdxrx\_7-Qu5n3YCGUvSdITkxh?tlUGj4PFSSjWskXt0oyXzKvIZ



|                       |                                      |             |                                  |               |                 |
|-----------------------|--------------------------------------|-------------|----------------------------------|---------------|-----------------|
| Plate Offsets (X,Y)-- | [10:0-3-0,0-0-12], [11:0-0-0,0-2-10] |             |                                  |               |                 |
| <b>LOADING</b> (psf)  | <b>SPACING-</b> 2-0-0                | <b>CSI.</b> | <b>DEFL.</b> in (loc) l/defl L/d | <b>PLATES</b> | <b>GRIP</b>     |
| TCLL 40.0             | Plate Grip DOL 1.00                  | TC 0.12     | Vert(LL) -0.01 6 >999 480        | MT20          | 244/190         |
| TCDL 10.0             | Lumber DOL 1.00                      | BC 0.12     | Vert(CT) -0.01 6 >999 360        |               |                 |
| BCLL 0.0              | Rep Stress Incr YES                  | WB 0.11     | Horz(CT) 0.00 5 n/a n/a          |               |                 |
| BCDL 5.0              | Code IRC2015/TPI2014                 | Matrix-P    |                                  | Weight: 25 lb | FT = 20%F, 11%E |

|                             |   |
|-----------------------------|---|
| <b>LUMBER-</b>              | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.2(flat) | TOP CHORD Structural wood sheathing directly applied or 4-1-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP No.2(flat) | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SP No.3(flat)      |   |
| OTHERS 2x4 SP No.3(flat)    |   |

**REACTIONS.** (lb/size) 5=201/0-3-8, 11=194/0-3-0

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

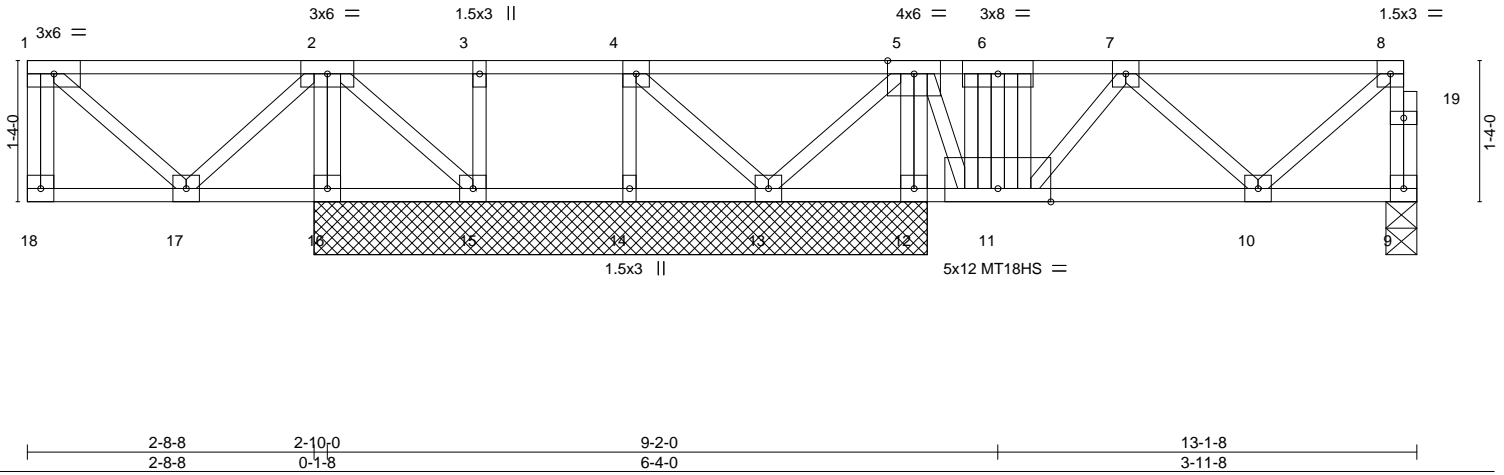
- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - Bearing at joint(s) 11 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.



|                   |              |                     |          |          |  |           |
|-------------------|--------------|---------------------|----------|----------|--|-----------|
| Job<br>Jackson_FL | Truss<br>F9G | Truss Type<br>Floor | Qty<br>1 | Ply<br>1 | Lamco Custom Homes<br>Job Reference (optional) | E12988369 |
|-------------------|--------------|---------------------|----------|----------|--|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:11 2019 Page 1  
ID:TzqElGM?vNsmIViTkYcdxyrx\_7-u4f9HuClFCaUNdJ7FIOa0UG8Sfo9SxtTA7ILV\_zkVIY



| LOADING (psf) | SPACING-             | CSL      | DEFL.                         | PLATES         | GRIP            |
|---------------|----------------------|----------|-------------------------------|----------------|-----------------|
| TCLL 40.0     | Plate Grip DOL 1.00  | TC 0.55  | Vert(LL) -0.00 11 >999 480    | MT20 244/190   |                 |
| TCDL 10.0     | Lumber DOL 1.00      | BC 0.09  | Vert(CT) -0.00 10-11 >999 360 | MT18HS 244/190 |                 |
| BCLL 0.0      | Rep Stress Incr NO   | WB 0.25  | Horz(CT) -0.00 12 n/a n/a     |                |                 |
| BCDL 5.0      | Code IRC2015/TPI2014 | Matrix-S |                               |                |                 |
|               |                      |          |                               | Weight: 84 lb  | FT = 20%F, 11%E |

| LUMBER-                     | BRACING-  |
|-----------------------------|---|
| TOP CHORD 2x4 SP No.2(flat) | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x4 SP No.2(flat) | BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.                                   |
| WEBS 2x4 SP No.3(flat)      |   |

**REACTIONS.** All bearings 5-9-8 except (jt=length) 9=0-3-8.  
 (lb) - Max Uplift All uplift 100 lb or less at joint(s) 13 except 15=364(LC 5)  
 Max Grav All reactions 250 lb or less at joint(s) 9, 13 except 12=397(LC 4), 16=935(LC 3), 14=327(LC 3)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=0/315  
 BOT CHORD 16-17=-630/0, 15-16=-629/0  
 WEBS 5-12=-385/0, 2-16=-909/0, 1-17=-419/0, 2-17=0/425, 2-15=0/525, 4-14=-312/0, 7-11=-284/0, 5-11=0/269

- NOTES-**
- Unbalanced floor live loads have been considered for this design.
  - All plates are MT20 plates unless otherwise indicated.
  - All plates are 3x3 MT20 unless otherwise indicated.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 15=364.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard  
 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
 Uniform Loads (plf)  
 Vert: 9-18=-10, 1-8=-100  
 Concentrated Loads (lb)  
 Vert: 1=-160



|                   |              |                     |          |          |  |           |
|-------------------|--------------|---------------------|----------|----------|--|-----------|
| Job<br>Jackson_FL | Truss<br>F10 | Truss Type<br>Floor | Qty<br>8 | Ply<br>1 | Lamco Custom Homes<br>Job Reference (optional) | E12988370 |
|-------------------|--------------|---------------------|----------|----------|--|-----------|

Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:03 2019 Page 1  
ID:TzqElgM?vNsmIVITkhYcdxyrx\_7-7YA8b96H7IZdQOianFiooxg?QrJaESIKtpwDRzKvlg

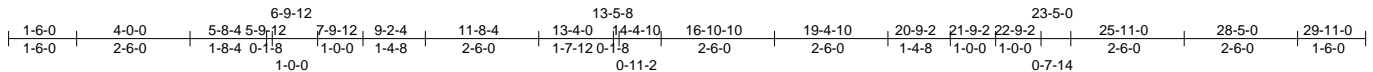
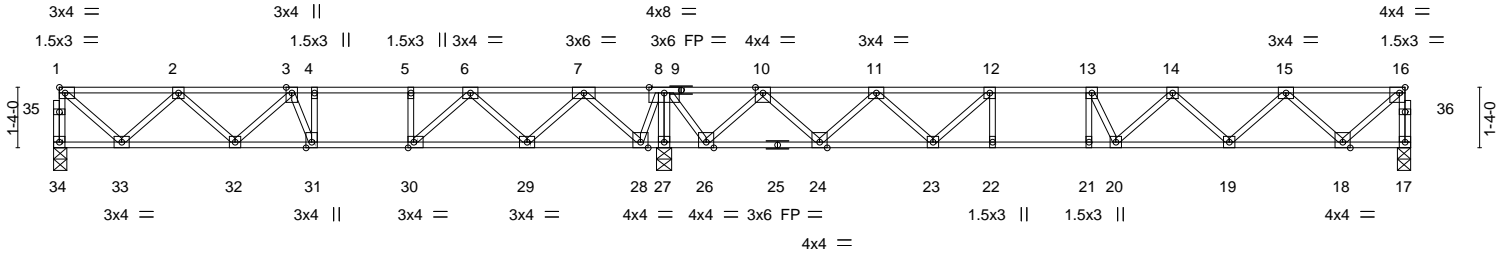


Plate Offsets (X,Y)-- [16:0-1-8,Edge], [30:0-1-8,Edge]

|                      |                      |       |             |              |          |        |      |                |                 |
|----------------------|----------------------|-------|-------------|--------------|----------|--------|------|----------------|-----------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | 2-0-0 | <b>CSI.</b> | <b>DEFL.</b> | in (loc) | l/defl | L/d  | <b>PLATES</b>  | <b>GRIP</b>     |
| TCLL 40.0            | Plate Grip DOL       | 1.00  | TC 0.96     | Vert(LL)     | -0.15    | 21     | >999 | MT20           | 244/190         |
| TCDL 10.0            | Lumber DOL           | 1.00  | BC 0.98     | Vert(CT)     | -0.21    | 21     | >939 |                |                 |
| BCLL 0.0             | Rep Stress Incr      | YES   | WB 0.53     | Horz(CT)     | 0.04     | 17     | n/a  |                |                 |
| BCDL 5.0             | Code IRC2015/TPI2014 |       | Matrix-S    |              |          |        |      |                |                 |
|                      |                      |       |             |              |          |        |      | Weight: 156 lb | FT = 20%F, 11%E |

**LUMBER-**

TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat) \*Except\*  
 17-25: 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)

**BRACING-**

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

**REACTIONS.**

(lb/size) 34=572/0-3-8, 17=765/0-3-8, 27=1914/0-4-0  
 Max Grav 34=645(LC 3), 17=798(LC 4), 27=1914(LC 1)

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

TOP CHORD 1-34=638/0, 16-17=793/0, 1-2=615/0, 2-3=1389/0, 3-4=1531/103, 4-5=1531/103, 5-6=1531/103, 6-7=678/615, 7-8=0/1427, 8-10=0/1031, 10-11=984/167, 11-12=1965/0, 12-13=2376/0, 13-14=2369/0, 14-15=1872/0, 15-16=790/0  
 BOT CHORD 32-33=0/1154, 31-32=0/1570, 30-31=103/1531, 29-30=378/1172, 28-29=850/179, 27-28=1720/0, 26-27=1711/0, 24-26=398/333, 23-24=0/1599, 22-23=0/2376, 21-22=0/2376, 20-21=0/2376, 19-20=0/2240, 18-19=0/1481  
 WEBS 4-31=25/323, 5-30=377/0, 12-22=14/256, 13-21=381/62, 8-27=1839/0, 1-33=0/791, 2-33=749/0, 2-32=20/328, 3-32=251/112, 3-31=497/0, 6-30=0/781, 6-29=808/0, 7-29=0/791, 7-28=1127/0, 8-28=0/839, 12-23=736/0, 11-23=0/566, 11-24=904/0, 10-24=0/958, 10-26=1306/0, 8-26=0/1122, 16-18=0/1018, 15-18=961/0, 15-19=0/544, 14-19=511/0, 14-20=25/255, 13-20=218/340

**NOTES-**

- Unbalanced floor live loads have been considered for this design.
- All plates are 3x3 MT20 unless otherwise indicated.
- Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.



May 1, 2019

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road  
 Edenton, NC 27932

|            |       |                       |     |     |                          |           |
|------------|-------|-----------------------|-----|-----|--------------------------|-----------|
| Job        | Truss | Truss Type            | Qty | Ply | Lamco Custom Homes       | E12988371 |
| Jackson_FL | F11E  | Floor Supported Gable | 1   | 1   | Job Reference (optional) |           |

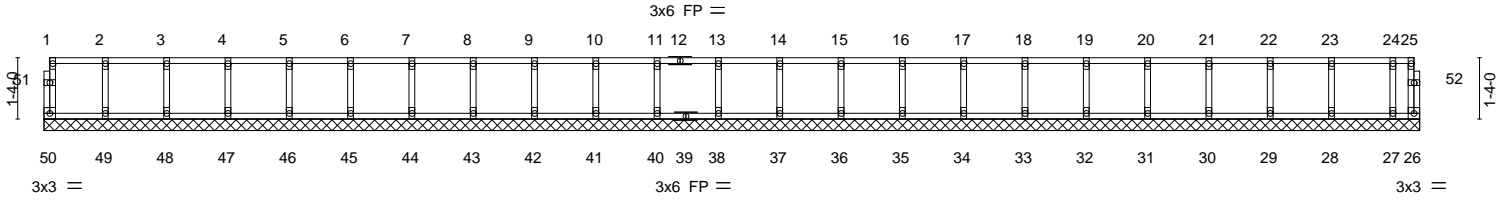
Builders FirstSource, Albemarle, NC 28001

8.220 s Nov 16 2018 MiTek Industries, Inc. Wed May 1 09:20:04 2019 Page 1  
 ID:TzqElgM?vNsmIViTkYcdxyrx\_7-bkkWpV7vu3hU1YHnKkmxE?U3ZqQcJpYRZXZUluZKvif

0-1/8

0-1/8

Scale = 1:50.1



| LOADING (psf) |      | SPACING-        |                 | CSI.     |      | DEFL.    |       |        |     | PLATES         | GRIP            |
|---------------|------|-----------------|-----------------|----------|------|----------|-------|--------|-----|----------------|-----------------|
| TCLL          | 40.0 | Plate Grip DOL  | 1.00            | TC       | 0.08 | in       | (loc) | l/defl | L/d | MT20           | 244/190         |
| TCDL          | 10.0 | Lumber DOL      | 1.00            | BC       | 0.02 | Vert(LL) | n/a   | -      | n/a |                |                 |
| BCLL          | 0.0  | Rep Stress Incr | YES             | WB       | 0.03 | Vert(CT) | n/a   | -      | n/a |                |                 |
| BCDL          | 5.0  | Code            | IRC2015/TPI2014 | Matrix-R |      | Horz(CT) | 0.00  | 26     | n/a |                |                 |
|               |      |                 |                 |          |      |          |       |        |     | Weight: 130 lb | FT = 20%F, 11%E |

**LUMBER-**  
 TOP CHORD 2x4 SP No.2(flat)  
 BOT CHORD 2x4 SP No.2(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

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

**REACTIONS.** All bearings 29-11-0.  
 (lb) - Max Grav All reactions 250 lb or less at joint(s) 50, 26, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27

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

- NOTES-**
- All plates are 1.5x3 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - Gable studs spaced at 1-4-0 oc.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.



May 1, 2019

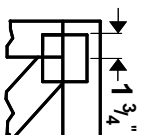
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



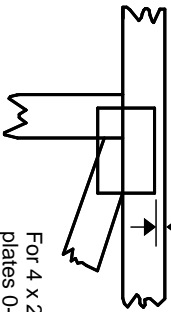
818 Soundside Road  
 Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/8" from outside edge of truss.



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

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

## PLATE SIZE

4 X 4

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

## LATERAL BRACING LOCATION



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

## BEARING



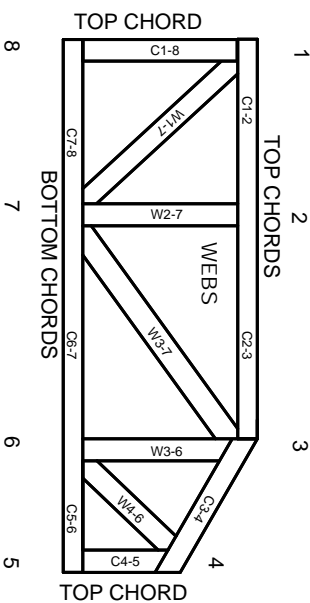
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing.  
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System

6-4-8  
dimensions shown in ft-in-sixteenths  
(Drawings not to scale)



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

Lumber design values are in accordance with ANSI/TP1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MITTEK® All Rights Reserved



MITek Engineering Reference Sheet: MII-7473 rev. 10/03/2015



# General Safety Notes

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

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TP1 1 Quality Criteria.