

RE: B0419-1977  
 Topsail C

Trenco  
 818 Soundside Rd  
 Edenton, NC 27932

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

Design Code: IRC2015/TPI2014  
 Wind Code: ASCE 7-10  
 Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.1  
 Wind Speed: 130 mph  
 Floor Load: N/A psf

This package includes 18 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal#     | Truss Name | Date       |
|-----|-----------|------------|------------|
| 1   | E12530272 | a01        | 12/18/2018 |
| 2   | E12530273 | a02        | 12/18/2018 |
| 3   | E12530274 | a03        | 12/18/2018 |
| 4   | E12530275 | a04-p      | 12/18/2018 |
| 5   | E12530276 | a06        | 12/18/2018 |
| 6   | E12530277 | a07        | 12/18/2018 |
| 7   | E12530278 | a8         | 12/18/2018 |
| 8   | E12530279 | a9         | 12/18/2018 |
| 9   | E12530280 | b01        | 12/18/2018 |
| 10  | E12530281 | b02        | 12/18/2018 |
| 11  | E12530282 | b03        | 12/18/2018 |
| 12  | E12530283 | b04        | 12/18/2018 |
| 13  | E12530284 | m01        | 12/18/2018 |
| 14  | E12530285 | m02        | 12/18/2018 |
| 15  | E12530286 | m03        | 12/18/2018 |
| 16  | E12530287 | ps-8       | 12/18/2018 |
| 17  | E12530288 | ps-8g      | 12/18/2018 |
| 18  | E12530289 | v01        | 12/18/2018 |

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Comtech, Inc - Fayetteville. Truss Design Engineer's Name: Gilbert, Eric My license renewal date for the state of North Carolina is December 31, 2019. North Carolina COA: C-0844

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



December 18, 2018

|                   |              |                     |          |          |           |           |
|-------------------|--------------|---------------------|----------|----------|-----------|-----------|
| Job<br>B0419-1977 | Truss<br>A01 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Topsail C | E12530272 |
|-------------------|--------------|---------------------|----------|----------|-----------|-----------|

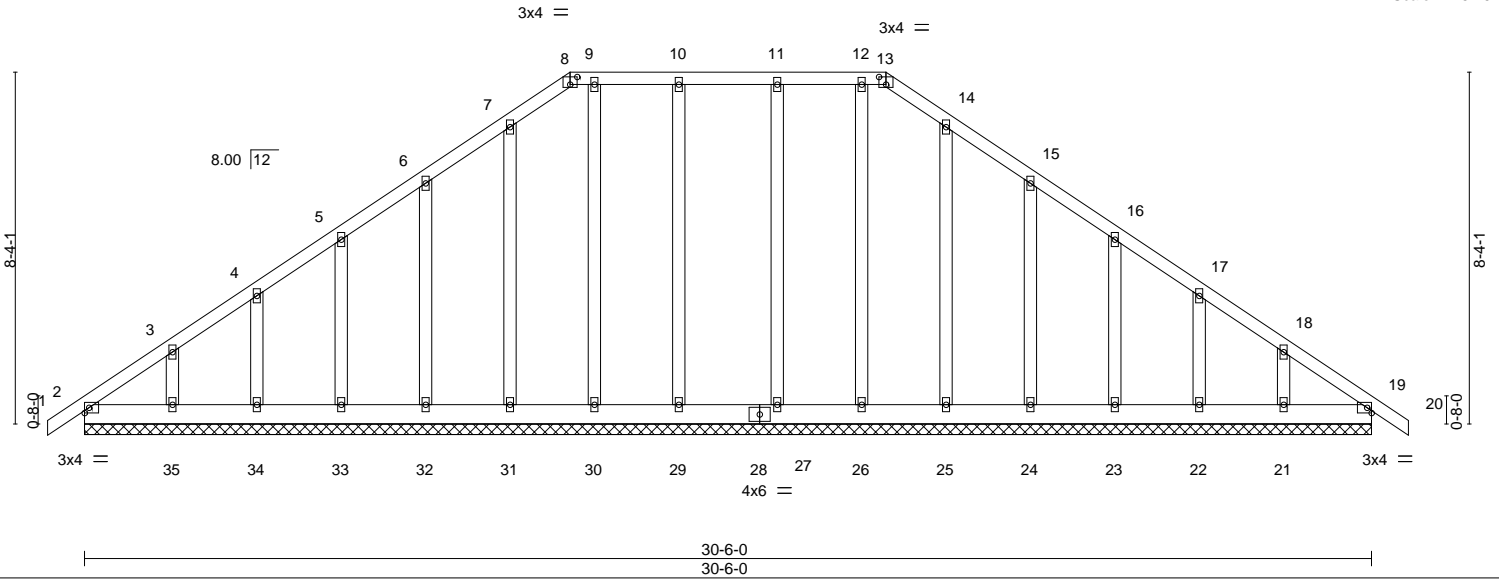
Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:43:51 2018 Page 1

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0-10-8 11-6-1 18-11-15 30-6-0 31-4-8  
 0-10-8 11-6-1 7-5-13 11-6-1 0-10-8

Scale = 1:54.6



|                       |                                   |             |                                 |                |             |
|-----------------------|-----------------------------------|-------------|---------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- | [8:0-2-0,0-2-3], [13:0-2-0,0-2-3] |             |                                 |                |             |
| <b>LOADING</b> (psf)  | <b>SPACING-</b> 2-0-0             | <b>CSI.</b> | <b>DEFL.</b> in (loc) l/def L/d | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL 20.0             | Plate Grip DOL 1.15               | TC 0.05     | Vert(LL) -0.00 19 n/r 120       | MT20           | 244/190     |
| TCDL 10.0             | Lumber DOL 1.15                   | BC 0.03     | Vert(CT) -0.00 19 n/r 120       |                |             |
| BCLL 0.0 *            | Rep Stress Incr YES               | WB 0.17     | Horz(CT) 0.01 19 n/a n/a        |                |             |
| BCDL 10.0             | Code IRC2015/TPI2014              | Matrix-S    |                                 | Weight: 232 lb | FT = 20%    |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.3    |   |

**REACTIONS.** All bearings 30-6-0.  
 (lb) - Max Horz 2=-276(LC 8)  
 Max Uplift All uplift 100 lb or less at joint(s) 2, 29, 30, 31, 27, 26, 25, 19 except 32=-115(LC 10),  
 33=-106(LC 10), 34=-104(LC 10), 35=-148(LC 10), 24=-118(LC 11), 23=-105(LC 11), 22=-104(LC 11),  
 21=-143(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, 21,  
 19

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-297/208

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 7-1-5, Corner(3) 7-1-5 to 23-4-11, Exterior(2) 23-4-11 to 26-11-11 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 29, 30, 31, 27, 26, 25, 19 except (jt=lb) 32=115, 33=106, 34=104, 35=148, 24=118, 23=105, 22=104, 21=143.



December 18, 2018

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| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></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, 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p> | <p>ENGINEERING BY<br/> <b>TRENCO</b><br/>         A MiTek Affiliate</p> <p>818 Soundside Road<br/>         Edenton, NC 27932</p> |
|---|--|

|            |       |            |     |     |           |           |
|------------|-------|------------|-----|-----|-----------|-----------|
| Job        | Truss | Truss Type | Qty | Ply | Topsail C | E12530273 |
| B0419-1977 | A02   | HIP        | 1   | 1   |           |           |

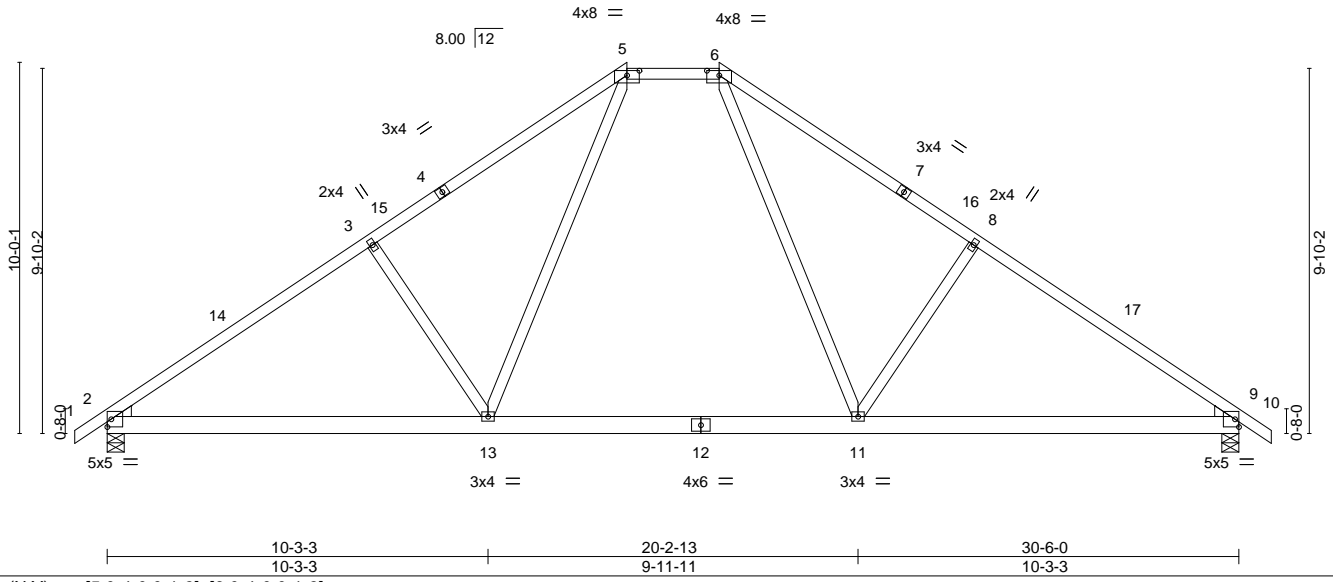
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8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:43:53 2018 Page 1

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|        |        |        |         |        |        |        |
|--------|--------|--------|---------|--------|--------|--------|
| 0-10-8 | 7-1-13 | 14-0-1 | 16-5-15 | 23-4-3 | 30-6-0 | 31-4-8 |
| 0-10-8 | 7-1-13 | 6-10-5 | 2-5-13  | 6-10-5 | 7-1-13 | 0-10-8 |

Scale = 1:62.1



|                       |                                  |
|-----------------------|----------------------------------|
| Plate Offsets (X,Y)-- | [5:0-4-0,0-1-9], [6:0-4-0,0-1-9] |
|-----------------------|----------------------------------|

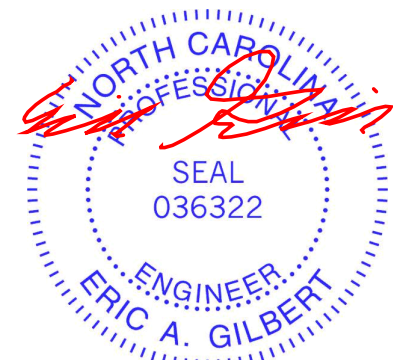
| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d  | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|------|----------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.56  | Vert(LL) | -0.18    | 9-11   | >999 | MT20           | 244/190  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.44  | Vert(CT) | -0.26    | 9-11   | >999 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.37  | Horz(CT) | 0.03     | 9      | n/a  |                |          |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-S | Wind(LL) | 0.17     | 2-13   | >999 | Weight: 176 lb | FT = 20% |

| LUMBER-                               | BRACING-   |
|---------------------------------------|--|
| TOP CHORD 2x4 SP No.1                 | TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins. |
| BOT CHORD 2x6 SP No.1                 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.             |
| WEBS 2x4 SP No.3                      |  |
| WEDGE                                 |  |
| Left: 2x4 SP No.3, Right: 2x4 SP No.3 |  |

**REACTIONS.** (lb/size) 2=1268/0-5-8, 9=1268/0-5-8  
 Max Horz 2=-263(LC 8)  
 Max Uplift 2=-155(LC 10), 9=-155(LC 11)  
 Max Grav 2=1319(LC 17), 9=1319(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1795/573, 3-5=-1607/629, 5-6=-1111/540, 6-8=-1608/629, 8-9=-1795/573  
 BOT CHORD 2-13=-310/1550, 11-13=-72/1080, 9-11=-310/1373  
 WEBS 3-13=-443/316, 5-13=-183/728, 6-11=-183/728, 8-11=-443/316

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 7-9-7, Exterior(2) 7-9-7 to 22-8-9, Interior(1) 22-8-9 to 26-11-11 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) 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=155, 9=155.



December 18, 2018

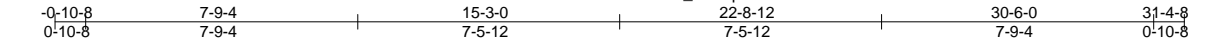
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|---|---|
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|            |       |            |     |     |           |           |
|------------|-------|------------|-----|-----|-----------|-----------|
| Job        | Truss | Truss Type | Qty | Ply | Topsail C | E12530274 |
| B0419-1977 | A03   | COMMON     | 5   | 1   |           |           |

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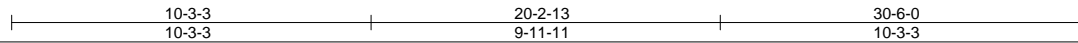
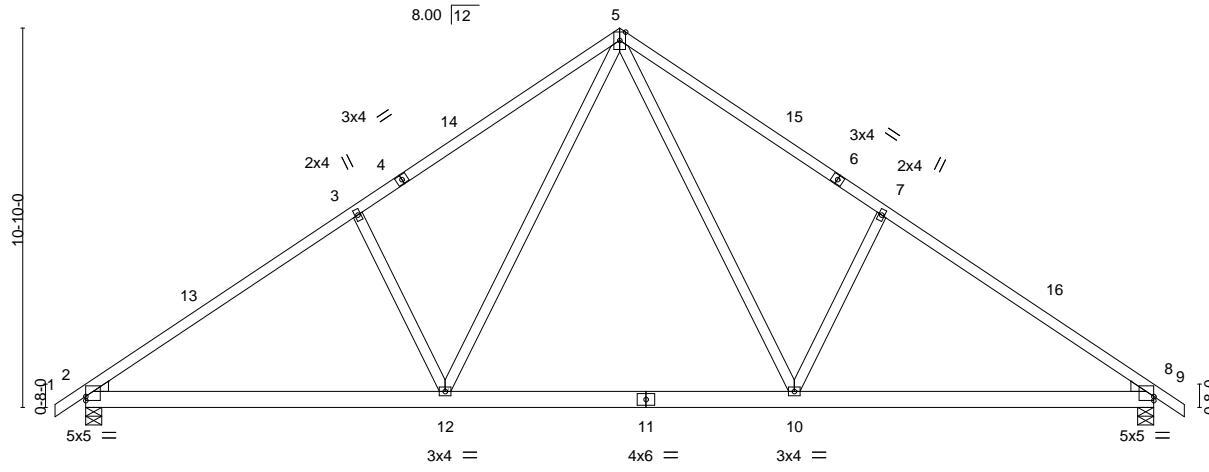
8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:43:54 2018 Page 1

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4x6 ||

Scale = 1:65.8



|                       |                                  |
|-----------------------|----------------------------------|
| Plate Offsets (X,Y)-- | [2:0-0-0,0-1-6], [8:0-0-0,0-1-6] |
|-----------------------|----------------------------------|

|                      |                      |       |             |              |          |        |      |               |                |          |
|----------------------|----------------------|-------|-------------|--------------|----------|--------|------|---------------|----------------|----------|
| <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 20.0            | Plate Grip DOL       | 1.15  | TC 0.58     | Vert(LL)     | -0.17    | 10-12  | >999 | 360           | MT20           | 244/190  |
| TCDL 10.0            | Lumber DOL           | 1.15  | BC 0.40     | Vert(CT)     | -0.23    | 10-12  | >999 | 240           |                |          |
| BCLL 0.0 *           | Rep Stress Incr      | YES   | WB 0.54     | Horz(CT)     | 0.03     | 8      | n/a  | n/a           |                |          |
| BCDL 10.0            | Code IRC2015/TPI2014 |       | Matrix-S    | Wind(LL)     | 0.06     | 2-12   | >999 | 240           | Weight: 181 lb | FT = 20% |

|   |  |
|---|--|
| <b>LUMBER-</b>                                      | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.1                               | TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins. |
| BOT CHORD 2x6 SP No.1                               | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.             |
| WEBS 2x4 SP No.2 *Except*<br>7-10,3-12: 2x4 SP No.3 |  |
| WEDGE<br>Left: 2x4 SP No.3, Right: 2x4 SP No.3      |  |


**REACTIONS.** (lb/size) 2=1268/0-5-8, 8=1268/0-5-8  
 Max Horz 2=287(LC 9)  
 Max Uplift 2=-159(LC 10), 8=-159(LC 11)  
 Max Grav 2=1336(LC 17), 8=1336(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1832/513, 3-5=-1681/617, 5-7=-1681/617, 7-8=-1833/513  
 BOT CHORD 2-12=-251/1590, 10-12=-9/1042, 8-10=-251/1398  
 WEBS 5-10=-230/860, 7-10=-500/332, 5-12=-230/860, 3-12=-500/332

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 10-10-3, Exterior(2) 10-10-3 to 15-3-0, Interior(1) 19-7-13 to 26-11-11 zone; 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=159, 8=159.



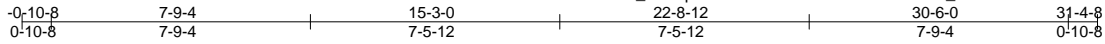
December 18, 2018

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|---|---|
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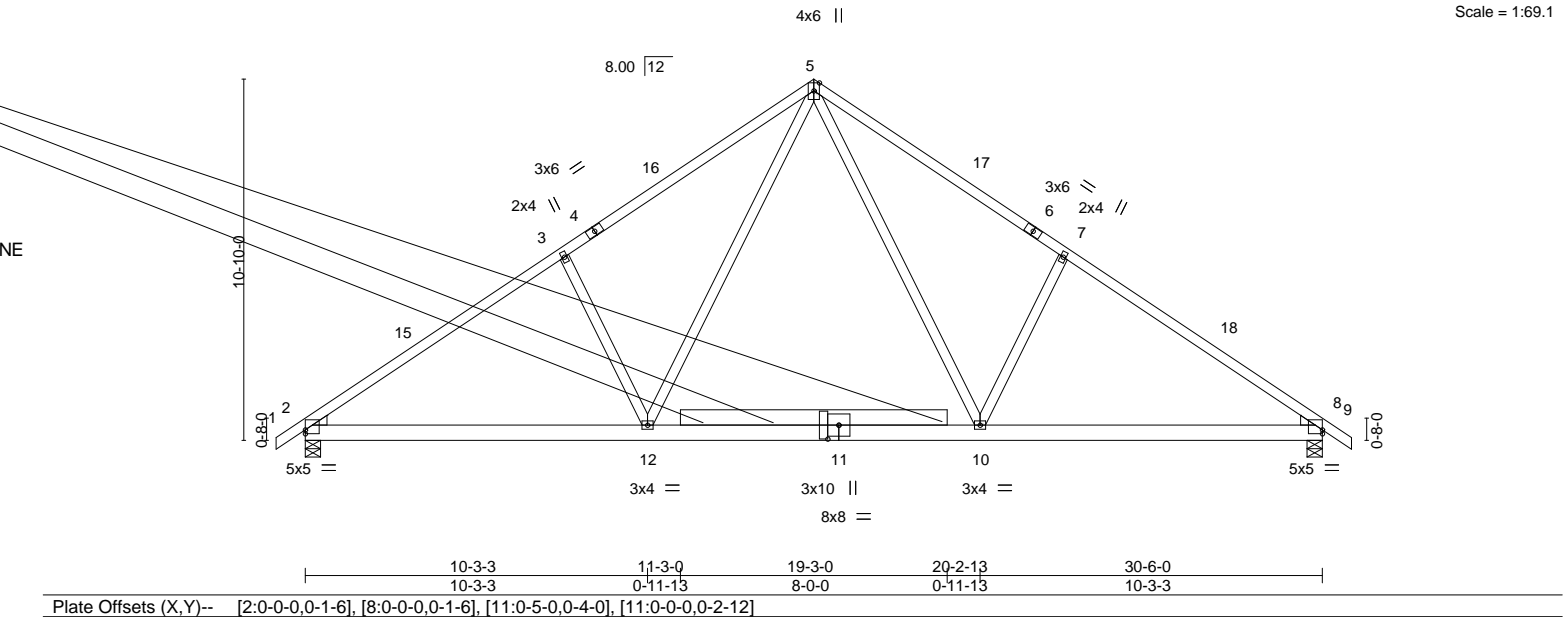
|            |       |            |     |     |           |           |
|------------|-------|------------|-----|-----|-----------|-----------|
| Job        | Truss | Truss Type | Qty | Ply | Topsail C | E12530275 |
| B0419-1977 | A04-P | COMMON     | 4   | 1   |           |           |

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8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:43:56 2018 Page 1  
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Scale = 1:69.1



|                       |   |             |                |          |        |     |                |             |
|-----------------------|---|-------------|----------------|----------|--------|-----|----------------|-------------|
| Plate Offsets (X,Y)-- | [2:0-0-0,0-1-6], [8:0-0-0,0-1-6], [11:0-5-0,0-4-0], [11:0-0-0,0-2-12] |             |                |          |        |     |                |             |
| <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 20.0             | Plate Grip DOL 1.15   | TC 0.58     | Vert(LL) -0.17 | 10-12    | >999   | 360 | MT20           | 244/190     |
| TCDL 10.0             | Lumber DOL 1.15   | BC 0.40     | Vert(CT) -0.23 | 10-12    | >999   | 240 |                |             |
| BCLL 0.0 *            | Rep Stress Incr YES   | WB 0.54     | Horz(CT) 0.03  | 8        | n/a    | n/a |                |             |
| BCDL 10.0             | Code IRC2015/TPI2014  | Matrix-S    | Wind(LL) 0.06  | 2-12     | >999   | 240 | Weight: 200 lb | FT = 20%    |

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.2 \*Except\*  
 7-10,3-12: 2x4 SP No.3, 13-14: 2x6 SP No.1  
 WEDGE  
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-11-6 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (lb/size) 2=1268/0-5-8, 8=1268/0-5-8  
 Max Horz 2=-287(LC 8)  
 Max Uplift 2=-159(LC 10), 8=-159(LC 11)  
 Max Grav 2=1336(LC 17), 8=1336(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1832/513, 3-5=-1681/617, 5-7=-1681/617, 7-8=-1833/513  
 BOT CHORD 2-12=-251/1590, 10-12=-9/1042, 8-10=-251/1398  
 WEBS 5-10=-230/860, 7-10=-500/332, 5-12=-230/860, 3-12=-500/332

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 10-10-3, Exterior(2) 10-10-3 to 15-3-0, Interior(1) 19-7-13 to 26-11-11 zone; 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=159, 8=159.



December 18, 2018

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 Edenton, NC 27932

|            |       |            |     |     |           |           |
|------------|-------|------------|-----|-----|-----------|-----------|
| Job        | Truss | Truss Type | Qty | Ply | Topsail C | E12530276 |
| B0419-1977 | A06   | COMMON     | 2   | 1   |           |           |

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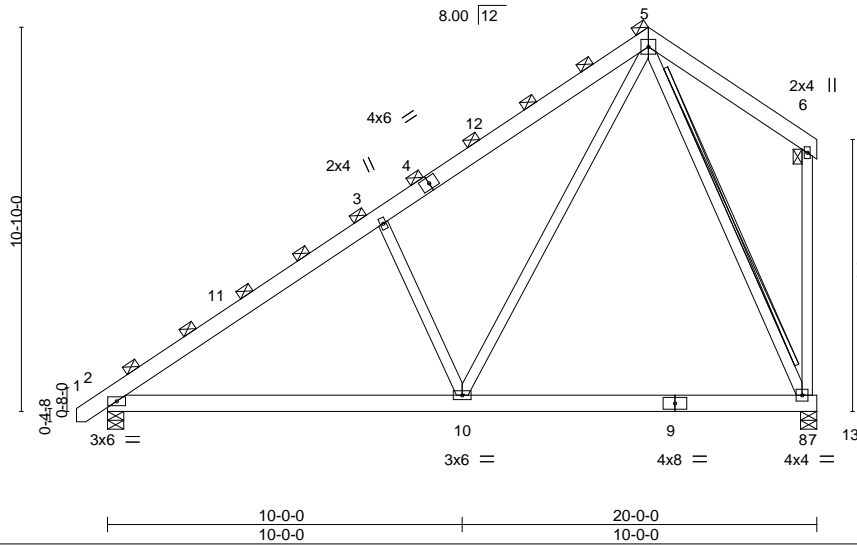
8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:43:57 2018 Page 1

ID:WeU20\_wZYqtTA5MeulVrNlzoaVc-tkCLxIEptW67wcbot8zik9vDCtQ2ejXe2d8j06y84om



5x5 =

Scale = 1:65.0



|                      |                      |       |             |              |          |        |      |                |             |
|----------------------|----------------------|-------|-------------|--------------|----------|--------|------|----------------|-------------|
| <b>LOADING</b> (psf) | <b>SPACING-</b>      | 2-1-8 | <b>CSI.</b> | <b>DEFL.</b> | in (loc) | l/defl | L/d  | <b>PLATES</b>  | <b>GRIP</b> |
| TCLL 20.0            | Plate Grip DOL       | 1.15  | TC 0.40     | Vert(LL)     | -0.17    | 8-10   | >999 | MT20           | 244/190     |
| TCDL 10.0            | Lumber DOL           | 1.15  | BC 0.48     | Vert(CT)     | -0.23    | 8-10   | >999 |                |             |
| BCLL 0.0 *           | Rep Stress Incr      | NO    | WB 0.61     | Horz(CT)     | 0.01     | 8      | n/a  |                |             |
| BCDL 10.0            | Code IRC2015/TPI2014 |       | Matrix-S    | Wind(LL)     | 0.03     | 2-10   | >999 |                |             |
|                      |                      |       |             |              |          |        |      | Weight: 157 lb | FT = 20%    |

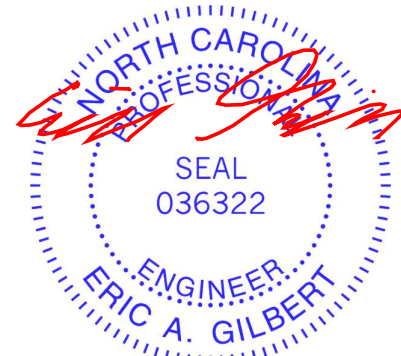
**LUMBER-**  
 TOP CHORD 2x6 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3 \*Except\*  
 5-10,5-8: 2x4 SP No.2

**BRACING-**  
 TOP CHORD 2-0-0 oc purlins (6-0-0 max.), except end verticals (Switched from sheeted: Spacing > 2-0-0). Rigid ceiling directly applied or 10-0-0 oc bracing.  
 BOT CHORD T-Brace: 2x4 SPF No.2 - 5-8  
 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.

**REACTIONS.** (lb/size) 8=833/0-5-8, 2=892/0-5-8  
 Max Horz 2=336(LC 10)  
 Max Uplift 8=-161(LC 10), 2=-86(LC 10)  
 Max Grav 8=1041(LC 17), 2=931(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1153/222, 3-5=-1017/347  
 BOT CHORD 2-10=-380/992, 8-10=-106/335  
 WEBS 3-10=-600/382, 5-10=-263/1009, 5-8=-812/268

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-15 to 3-7-14, Interior(1) 3-7-14 to 10-10-3, Exterior(2) 10-10-3 to 15-3-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=161.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



December 18, 2018

**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.



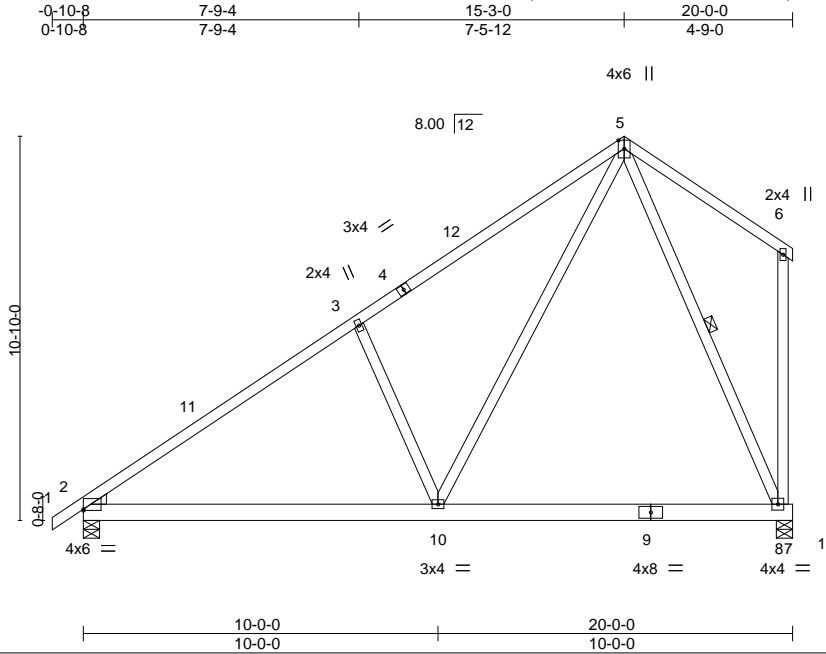
818 Soundside Road  
 Edenton, NC 27932

|            |       |            |     |     |           |           |
|------------|-------|------------|-----|-----|-----------|-----------|
| Job        | Truss | Truss Type | Qty | Ply | Topsail C | E12530277 |
| B0419-1977 | A07   | COMMON     | 7   | 1   |           |           |

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8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:43:58 2018 Page 1

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Scale = 1:65.0

|                       |                       |             |                                  |                |             |
|-----------------------|-----------------------|-------------|----------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- | [2:0-0-0,0-0-6]       |             |                                  |                |             |
| <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 20.0             | Plate Grip DOL 1.15   | TC 0.57     | Vert(LL) -0.16 8-10 >999 360     | MT20           | 244/190     |
| TCDL 10.0             | Lumber DOL 1.15       | BC 0.41     | Vert(CT) -0.22 8-10 >999 240     |                |             |
| BCLL 0.0 *            | Rep Stress Incr YES   | WB 0.60     | Horz(CT) 0.01 8 n/a n/a          |                |             |
| BCDL 10.0             | Code IRC2015/TPI2014  | Matrix-S    | Wind(LL) 0.05 2-10 >999 240      | Weight: 137 lb | FT = 20%    |

|                           |   |
|---------------------------|---|
| <b>LUMBER-</b>            | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.1     | TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins, except end verticals. |
| BOT CHORD 2x6 SP No.1     | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SP No.3 *Except* | WEBS 1 Row at midpt 5-8   |
| 5-10,5-8: 2x4 SP No.2     |   |
| <b>WEDGE</b>              |   |
| Left: 2x4 SP No.3         |   |

|  |
|--|
| <b>REACTIONS.</b> (lb/size) 8=784/0-5-8, 2=848/0-5-8 |
| Max Horz 2=319(LC 10)                                |
| Max Uplift 8=-153(LC 10), 2=-82(LC 10)               |
| Max Grav 8=980(LC 17), 2=883(LC 17)                  |

|   |
|---|
| <b>FORCES.</b> (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. |
| TOP CHORD 2-3=-1076/205, 3-5=-948/326   |
| BOT CHORD 2-10=-349/914, 8-10=-100/314  |
| WEBS 3-10=-541/351, 5-10=-250/947, 5-8=-766/249   |

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 10-10-3, Exterior(2) 10-10-3 to 15-3-0 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 8=153.



December 18, 2018

|   |   |
|---|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></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, 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p> | <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|---|---|

|            |       |            |     |     |           |           |
|------------|-------|------------|-----|-----|-----------|-----------|
| Job        | Truss | Truss Type | Qty | Ply | Topsail C | E12530278 |
| B0419-1977 | A8    | HIP        | 1   | 1   |           |           |

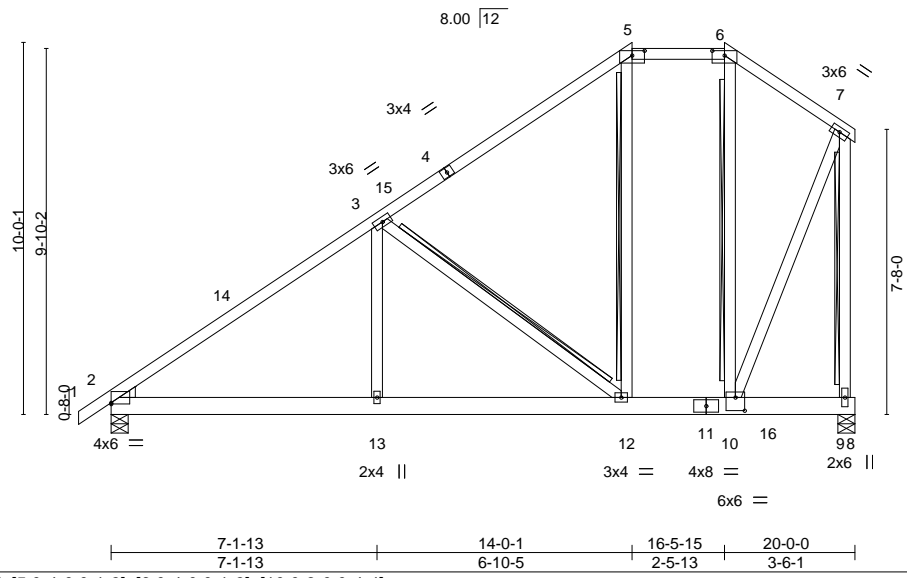
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8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:00 2018 Page 1

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Scale = 1:62.0



|                       |   |
|-----------------------|---|
| Plate Offsets (X,Y)-- | [2:0-0-0,0-0-6], [5:0-4-0,0-1-9], [6:0-4-0,0-1-9], [10:0-3-0,0-4-4] |
|-----------------------|---|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc)    | l/defl | L/d | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|-------------|--------|-----|----------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.48  | Vert(LL) | -0.09 12-13 | >999   | 360 | MT20           | 244/190  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.50  | Vert(CT) | -0.19 12-13 | >999   | 240 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.38  | Horz(CT) | 0.01 9      | n/a    | n/a |                |          |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-S | Wind(LL) | 0.10 12-13  | >999   | 240 |                |          |
|               |                      |       |          |          |             |        |     | Weight: 153 lb | FT = 20% |

**LUMBER-**  
 TOP CHORD 2x4 SP No.1  
 BOT CHORD 2x6 SP No.1  
 WEBS 2x4 SP No.3  
 WEDGE  
 Left: 2x4 SP No.3

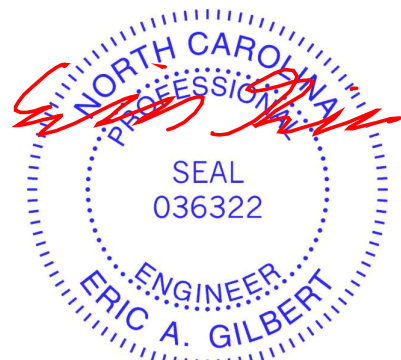
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 5-7-5 oc purlins, except end verticals.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 9-10.  
 WEBS T-Brace: 2x4 SPF No.2 - 3-12, 5-12, 6-10, 7-9  
 Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c., with 3in minimum end distance.  
 Brace must cover 90% of web length.

**REACTIONS.** (lb/size) 2=848/0-5-8, 9=784/0-5-8  
 Max Horz 2=307(LC 10)  
 Max Uplift 2=-84(LC 10), 9=-135(LC 10)  
 Max Grav 2=848(LC 1), 9=869(LC 17)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1088/238, 3-5=-485/172, 5-6=-384/222, 6-7=-400/204, 7-9=-1026/437  
 BOT CHORD 2-13=-403/935, 12-13=-403/935, 10-12=-119/326  
 WEBS 3-13=0/398, 3-12=-795/356, 7-10=-308/853

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 7-9-7, Exterior(2) 7-9-7 to 19-8-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Provide adequate drainage to prevent water ponding.
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (it=lb) 9=135.
- Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.



December 18, 2018

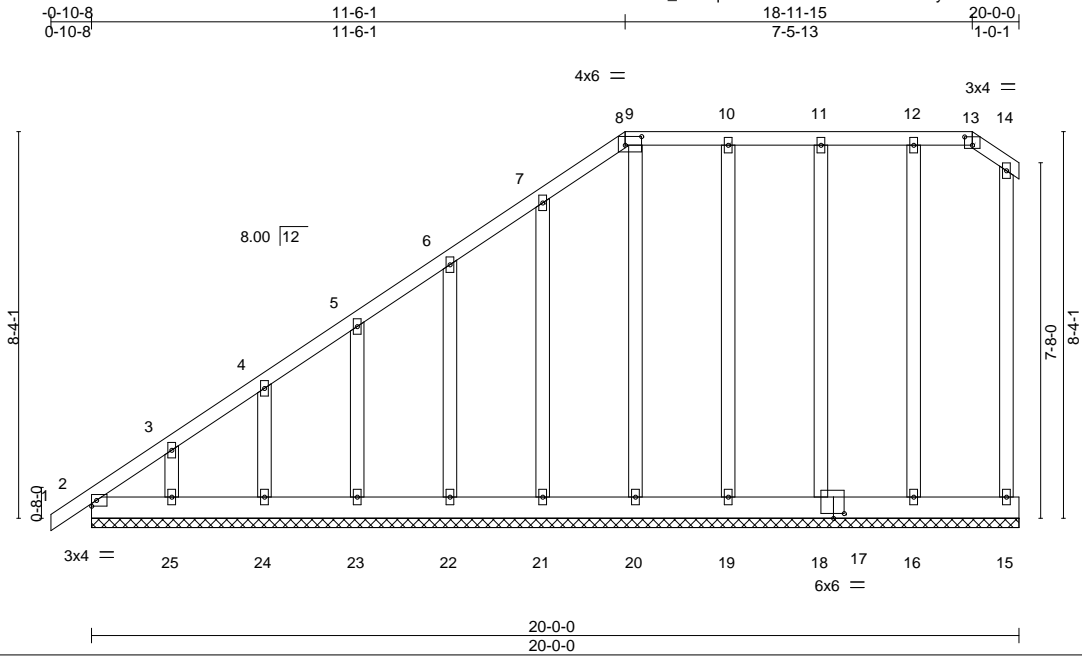
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|---|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p> | <p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MITEK AFFILIATE</p> <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|---|---|



|                   |             |                                   |          |          |           |           |
|-------------------|-------------|-----------------------------------|----------|----------|-----------|-----------|
| Job<br>B0419-1977 | Truss<br>A9 | Truss Type<br>HIP SUPPORTED GABLE | Qty<br>1 | Ply<br>1 | Topsail C | E12530279 |
|-------------------|-------------|-----------------------------------|----------|----------|-----------|-----------|

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8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:02 2018 Page 1  
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Scale = 1:49.7

|                       |  |
|-----------------------|--|
| Plate Offsets (X,Y)-- | [8:0-0-0,0-1-12], [8:0-4-4,0-2-4], [9:0-1-12,0-0-0], [13:0-2-0,0-2-3], [17:0-2-12,0-1-4], [17:0-0-0,0-2-12], [18:0-1-12,0-0-0] |
|-----------------------|--|

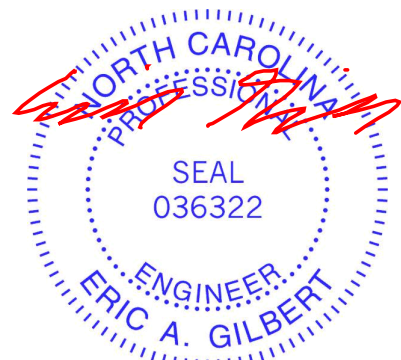
| LOADING (psf) | SPACING-             | CSI.     | DEFL.                    | PLATES         | GRIP     |
|---------------|----------------------|----------|--------------------------|----------------|----------|
| TCLL 20.0     | 2-0-0                | TC 0.07  | in (loc) l/defl L/d      | MT20           | 244/190  |
| TCDL 10.0     | Plate Grip DOL 1.15  | BC 0.02  | Vert(LL) 0.00 1 n/r 120  |                |          |
| BCLL 0.0 *    | Lumber DOL 1.15      | WB 0.16  | Vert(CT) -0.00 1 n/r 120 |                |          |
| BCDL 10.0     | Rep Stress Incr YES  | Matrix-S | Horz(CT) 0.00 15 n/a n/a |                |          |
|               | Code IRC2015/TPI2014 |          |                          | Weight: 166 lb | FT = 20% |

| LUMBER-               | BRACING-  |
|-----------------------|---|
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.                                  |
| WEBS 2x4 SP No.3      |   |
| OTHERS 2x4 SP No.3    |   |

**REACTIONS.** All bearings 20-0-0.  
 (lb) - Max Horz 2=414(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 15, 2, 16, 18, 19, 20 except 21=109(LC 10), 22=107(LC 10), 23=106(LC 10), 24=108(LC 10), 25=159(LC 10)  
 Max Grav All reactions 250 lb or less at joint(s) 15, 2, 16, 18, 19, 20, 21, 22, 23, 24, 25

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-473/369, 3-4=-357/274, 4-5=-272/208

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-8-12, Exterior(2) 3-8-12 to 7-1-5, Corner(3) 7-1-5 to 19-8-12 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15, 2, 16, 18, 19, 20 except (jt=lb) 21=109, 22=107, 23=106, 24=108, 25=159.



December 18, 2018

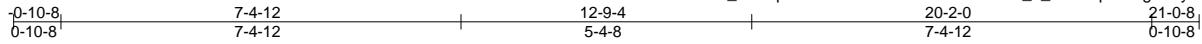
|   |   |
|---|---|
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|---|---|

|                   |              |                     |          |          |           |           |
|-------------------|--------------|---------------------|----------|----------|-----------|-----------|
| Job<br>B0419-1977 | Truss<br>B01 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Topsail C | E12530280 |
|-------------------|--------------|---------------------|----------|----------|-----------|-----------|

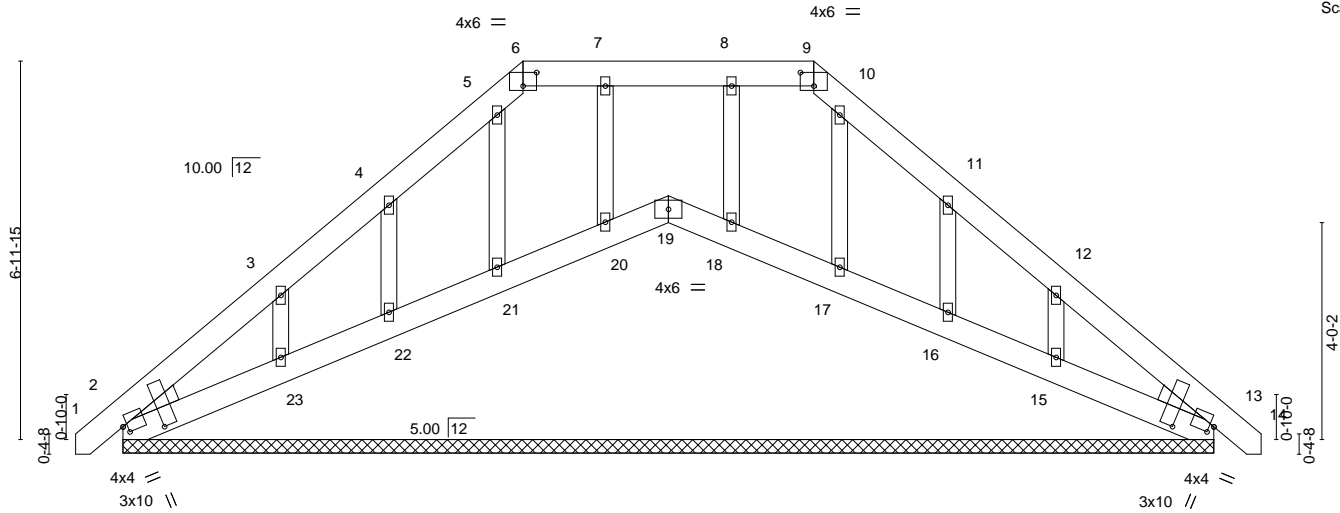
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8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:05 2018 Page 1

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Scale = 1:42.6



|                       |  |
|-----------------------|--|
| Plate Offsets (X,Y)-- | [2:0-3-8,0-8-8], [2:0-1-0,0-1-10], [6:0-3-0,0-3-0], [9:0-3-0,0-3-0], [13:0-1-0,0-1-10], [13:0-3-8,0-8-8] |
|-----------------------|--|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES | GRIP    |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|--------|---------|
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.04  | Vert(LL) | 0.00     | 13     | n/r | MT20   | 244/190 |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.03  | Vert(CT) | 0.00     | 13     | n/r |        |         |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.07  | Horz(CT) | 0.00     | 13     | n/a |        |         |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-S |          |          |        |     |        |         |

Weight: 145 lb FT = 20%

| LUMBER-                               | BRACING-  |
|---------------------------------------|---|
| TOP CHORD 2x6 SP No.1                 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1                 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.3                    |   |
| WEDGE                                 |   |
| Left: 2x4 SP No.3, Right: 2x4 SP No.3 |   |

**REACTIONS.** All bearings 20-2-0.  
 (lb) - Max Horz 2=229(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 19, 13, 20, 21, 18 except 2=128(LC 6), 22=125(LC 10), 23=232(LC 10), 16=128(LC 11), 15=224(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 2, 19, 13, 20, 21, 22, 18, 17, 16 except 23=288(LC 17), 15=280(LC 18)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 3-23=269/241, 12-15=269/233

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - Gable studs spaced at 2-0-0 oc.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 13, 20, 21, 18 except (jt=lb) 2=128, 22=125, 23=232, 16=128, 15=224.
  - Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 19, 20, 21, 22, 23, 18, 17, 16, 15.



December 18, 2018

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

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**TRENCO** ENGINEERING BY  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

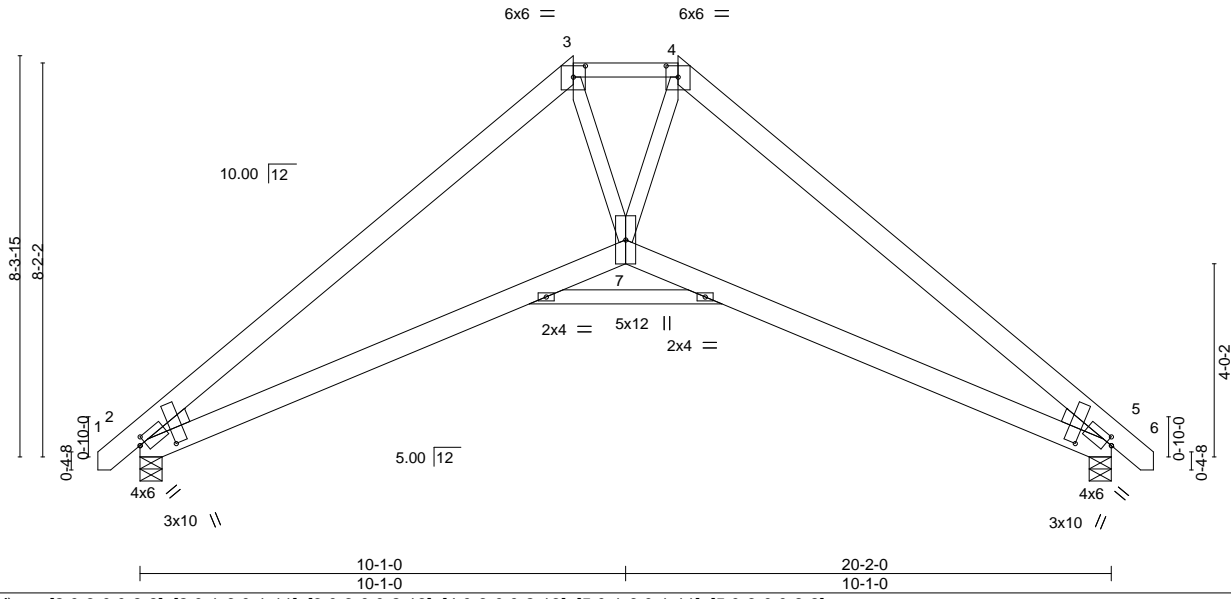
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|---------------------------------------|-------|------------|-----|-----|-----------|--------------------------|
| Job                                   | Truss | Truss Type | Qty | Ply | Topsail C | E12530281                |
| B0419-1977                            | B02   | HIP        | 1   | 1   |           |                          |
| Comtech, Inc., Fayetteville, NC 28309 |       |            |     |     |           | Job Reference (optional) |

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:06 2018 Page 1

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|        |        |         |        |        |        |        |
|--------|--------|---------|--------|--------|--------|--------|
| 0-10-8 | 4-7-12 | 8-11-15 | 11-2-1 | 15-6-4 | 20-2-0 | 21-0-8 |
| 0-10-8 | 4-7-12 | 4-4-4   | 2-2-2  | 4-4-4  | 4-7-12 | 0-10-8 |

Scale: 1/4"=1'



|                       |  |
|-----------------------|--|
| Plate Offsets (X,Y)-- | [2:0-3-0,0-8-8], [2:0-1-6,0-1-11], [3:0-3-0,0-2-13], [4:0-3-0,0-2-13], [5:0-1-6,0-1-11], [5:0-3-0,0-8-8] |
|-----------------------|--|

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d  | PLATES         | GRIP     |
|---------------|----------------------|-------|----------|----------|----------|--------|------|----------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.50  | Vert(LL) | -0.09    | 5-7    | >999 | MT20           | 244/190  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.37  | Vert(CT) | -0.20    | 5-7    | >999 |                |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.23  | Horz(CT) | 0.08     | 5      | n/a  |                |          |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-S | Wind(LL) | 0.07     | 2-7    | >999 | Weight: 135 lb | FT = 20% |

| LUMBER-  | BRACING-  |
|--|---|
| TOP CHORD 2x6 SP No.1 *Except*<br>3-4: 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 5-4-6 oc purlins. |
| BOT CHORD 2x6 SP No.1                              | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.3                                   |   |
| WEDGE<br>Left: 2x4 SP No.3, Right: 2x4 SP No.3     |   |

**REACTIONS.** (lb/size) 2=847/0-5-8, 5=847/0-5-8  
 Max Horz 2=217(LC 9)  
 Max Uplift 2=-96(LC 10), 5=-96(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1442/282, 3-4=-1091/360, 4-5=-1442/282  
 BOT CHORD 2-7=-114/1106, 5-7=-20/1069  
 WEBS 4-7=-111/645, 3-7=0/564

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; 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) 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) Bearing at joint(s) 2, 5 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 100 lb uplift at joint(s) 2, 5.



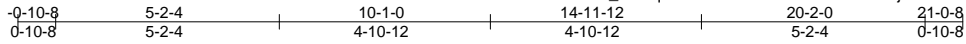
December 18, 2018

|   |   |
|---|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></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, 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p> | <p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|---|---|

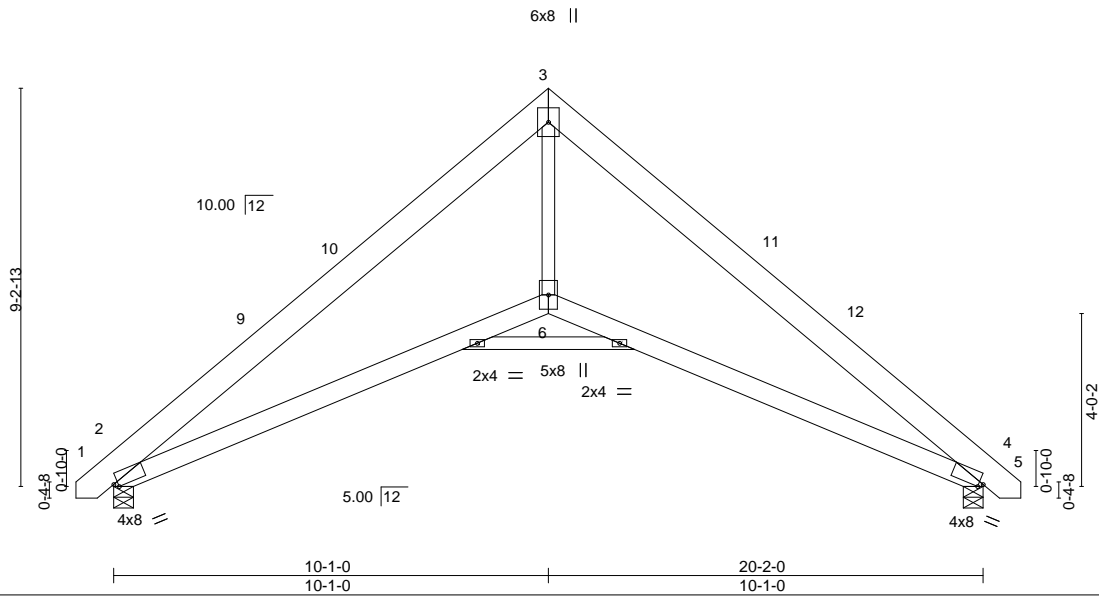
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|---------------------------------------|-------|------------|-----|-----|-----------|--------------------------|
| Job                                   | Truss | Truss Type | Qty | Ply | Topsail C | E12530282                |
| B0419-1977                            | B03   | SCISSORS   | 1   | 1   |           |                          |
| Comtech, Inc., Fayetteville, NC 28309 |       |            |     |     |           | Job Reference (optional) |

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:08 2018 Page 1

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Scale = 1:53.4



|                        |                                  |       |             |              |          |        |      |               |                |          |
|------------------------|----------------------------------|-------|-------------|--------------|----------|--------|------|---------------|----------------|----------|
| Plate Offsets (X, Y)-- | [2:0-1-3, Edge], [4:0-1-3, 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 20.0              | Plate Grip DOL                   | 1.15  | TC 0.34     | Vert(LL)     | -0.08    | 4-6    | >999 | 360           | MT20           | 244/190  |
| TCDL 10.0              | Lumber DOL                       | 1.15  | BC 0.35     | Vert(CT)     | -0.19    | 4-6    | >999 | 240           |                |          |
| BCLL 0.0 *             | Rep Stress Incr                  | YES   | WB 0.42     | Horz(CT)     | 0.08     | 4      | n/a  | n/a           |                |          |
| BCDL 10.0              | Code IRC2015/TPI2014             |       | Matrix-S    | Wind(LL)     | 0.05     | 2-6    | >999 | 240           | Weight: 153 lb | FT = 20% |

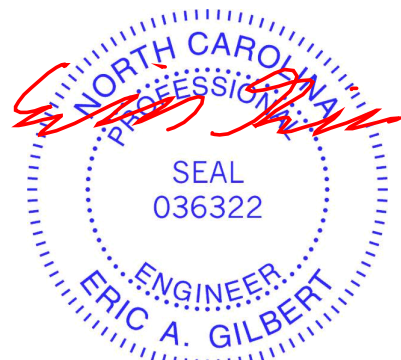
|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x8 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.3      |   |

**REACTIONS.** (lb/size) 2=840/0-5-8, 4=840/0-5-8  
 Max Horz 2=-238(LC 8)  
 Max Uplift 2=-97(LC 10), 4=-97(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-1403/235, 3-4=-1404/235  
 BOT CHORD 2-6=-30/1142, 4-6=-21/1135  
 WEBS 3-6=0/1069

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) -0-7-9 to 3-9-4, Interior(1) 3-9-4 to 5-8-3, Exterior(2) 5-8-3 to 10-1-0, Interior(1) 14-5-13 to 16-4-12 zone; 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Bearing at joint(s) 2, 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

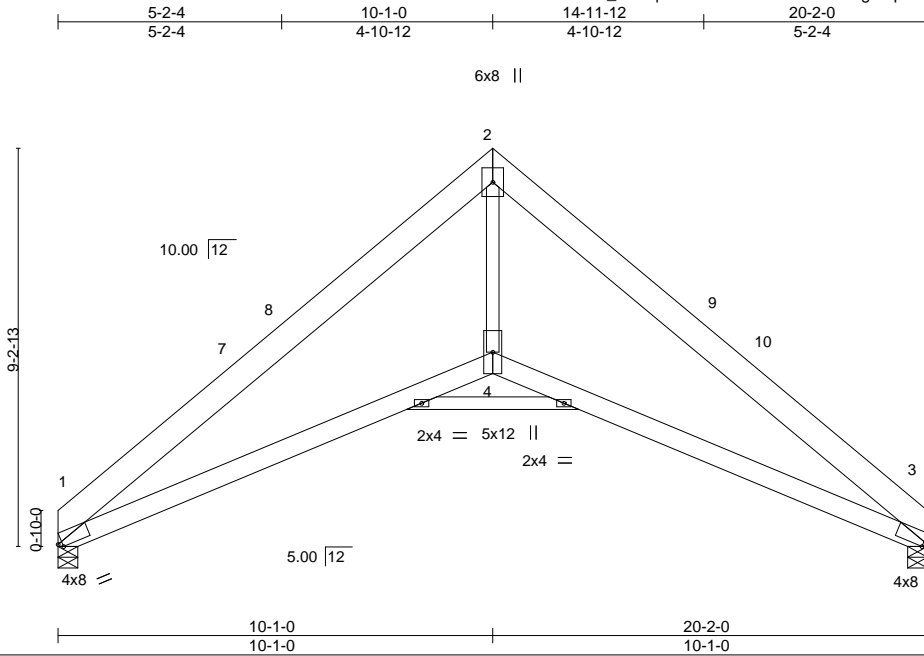


December 18, 2018

|                   |              |                        |          |          |           |           |
|-------------------|--------------|------------------------|----------|----------|-----------|-----------|
| Job<br>B0419-1977 | Truss<br>B04 | Truss Type<br>SCISSORS | Qty<br>5 | Ply<br>1 | Topsail C | E12530283 |
|-------------------|--------------|------------------------|----------|----------|-----------|-----------|

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:10 2018 Page 1  
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Scale = 1:53.4

|                       |                                |             |                                  |                |             |
|-----------------------|--------------------------------|-------------|----------------------------------|----------------|-------------|
| Plate Offsets (X,Y)-- | [1:0-1-3,Edge], [3:0-1-3,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 20.0             | Plate Grip DOL 1.15            | TC 0.35     | Vert(LL) -0.09 1-4 >999 360      | MT20           | 244/190     |
| TCDL 10.0             | Lumber DOL 1.15                | BC 0.35     | Vert(CT) -0.19 1-4 >999 240      |                |             |
| BCLL 0.0 *            | Rep Stress Incr YES            | WB 0.43     | Horz(CT) 0.08 3 n/a n/a          |                |             |
| BCDL 10.0             | Code IRC2015/TPI2014           | Matrix-S    | Wind(LL) 0.05 1-4 >999 240       | Weight: 147 lb | FT = 20%    |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x8 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x6 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| WEBS 2x4 SP No.3      |   |

**REACTIONS.** (lb/size) 1=788/0-5-8, 3=788/0-5-8  
 Max Horz 1=-232(LC 8)  
 Max Uplift 1=-82(LC 10), 3=-82(LC 11)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-1409/268, 2-3=-1409/268  
 BOT CHORD 1-4=-37/1140, 3-4=-29/1137  
 WEBS 2-4=0/1069

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Exterior(2) 0-2-12 to 4-7-9, Interior(1) 4-7-9 to 5-8-3, Exterior(2) 5-8-3 to 10-1-0, Interior(1) 14-5-13 to 15-6-7 zone;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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 5) Bearing at joint(s) 1, 3 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 18, 2018

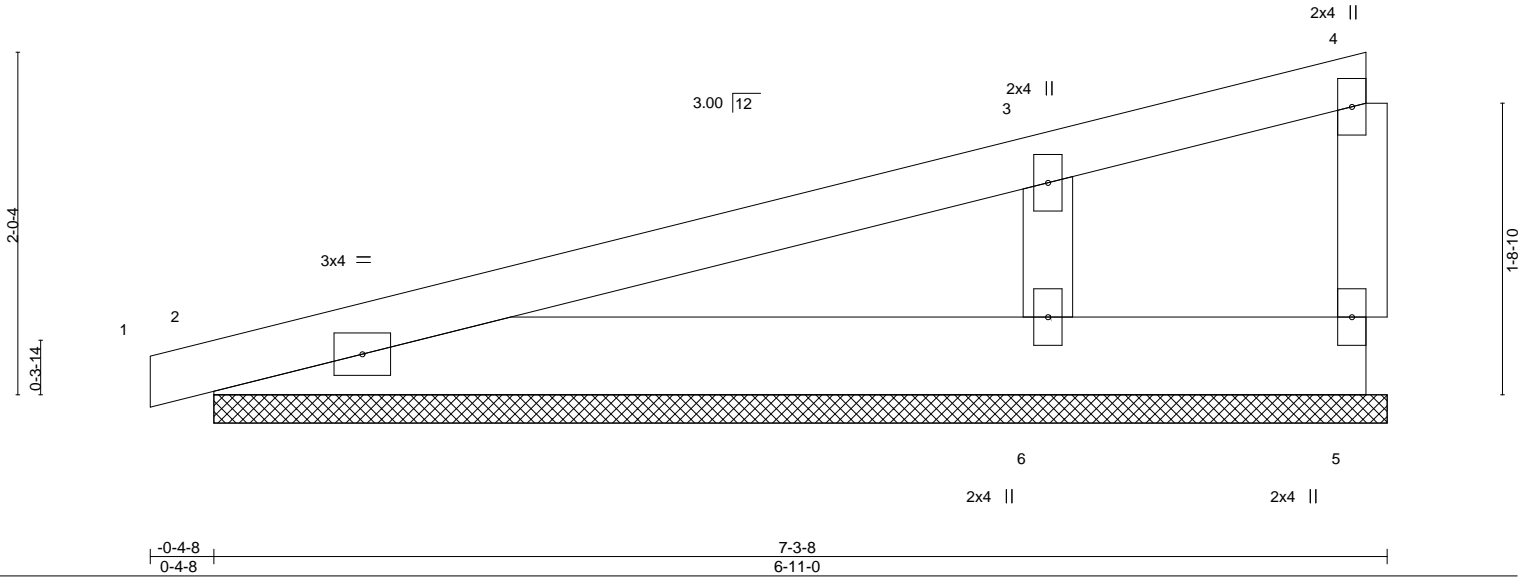
|            |       |            |     |     |           |           |
|------------|-------|------------|-----|-----|-----------|-----------|
| Job        | Truss | Truss Type | Qty | Ply | Topsail C | E12530284 |
| B0419-1977 | M01   | GABLE      | 1   | 1   |           |           |

Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:11 2018 Page 1  
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-0-4-8  
0-4-8

Scale = 1:13.6



-0-4-8  
0-4-8

7-3-8  
6-11-0

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d | PLATES | GRIP          |          |
|---------------|----------------------|-------|----------|----------|----------|--------|-----|--------|---------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.23  | Vert(LL) | -0.00    | 1      | n/r | 120    | MT20          | 244/190  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.06  | Vert(CT) | 0.00     | 1      | n/r | 120    |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.10  | Horz(CT) | -0.00    | 5      | n/a | n/a    |               |          |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-P |          |          |        |     |        |               |          |
|               |                      |       |          |          |          |        |     |        | Weight: 30 lb | FT = 20% |

**LUMBER-**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x6 SP No.1  
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 6-0-0 oc bracing.

**REACTIONS.** (lb/size) 5=-25/6-11-0, 2=183/6-11-0, 6=406/6-11-0  
Max Horz 2=96(LC 6)  
Max Uplift 5=-25(LC 1), 2=-69(LC 6), 6=-167(LC 10)  
Max Grav 5=10(LC 10), 2=183(LC 1), 6=406(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 3-6=-304/335

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) 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.
  - 3) Gable requires continuous bottom chord bearing.
  - 4) Gable studs spaced at 2-0-0 oc.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2 except (jt=lb) 6=167.
  - 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 18, 2018

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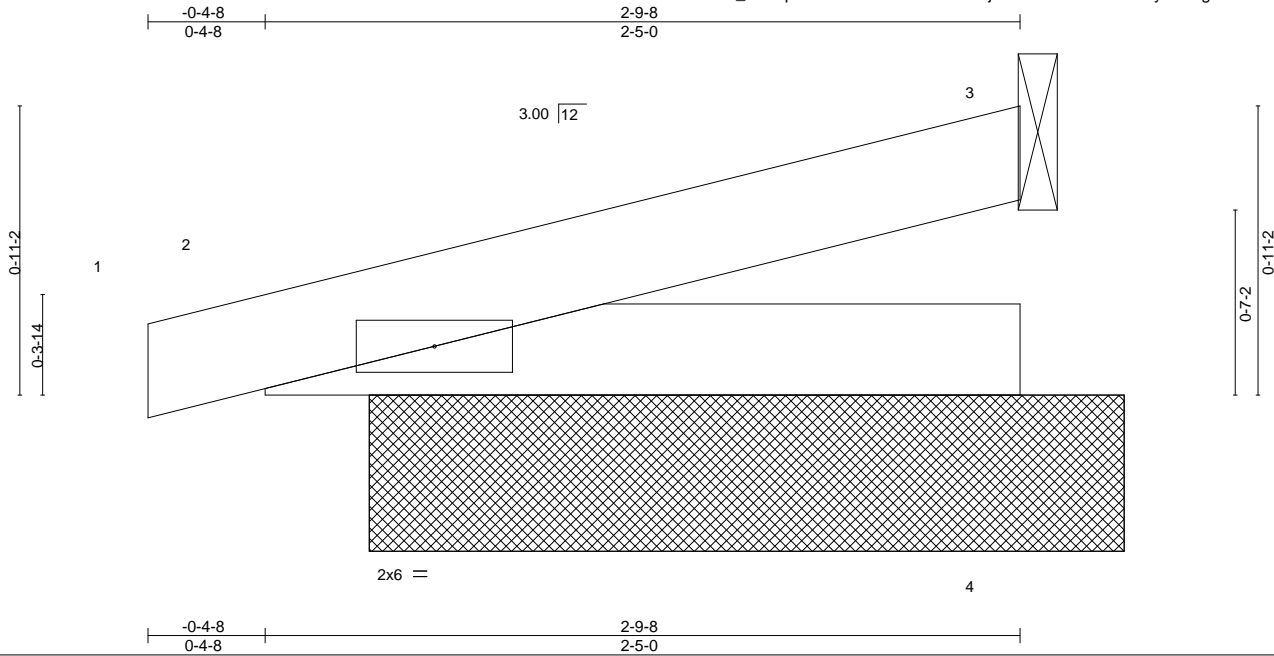
818 Soundside Road  
Edenton, NC 27932



|                                       |              |                                   |          |          |           |                          |
|---------------------------------------|--------------|-----------------------------------|----------|----------|-----------|--------------------------|
| Job<br>B0419-1977                     | Truss<br>M03 | Truss Type<br>MONOPITCH SUPPORTED | Qty<br>1 | Ply<br>1 | Topsail C | E12530286                |
| Comtech, Inc., Fayetteville, NC 28309 |              |                                   |          |          |           | Job Reference (optional) |

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:15 2018 Page 1

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Scale = 1:7.4

| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in (loc) | l/defl | L/d  | PLATES | GRIP         |          |
|---------------|----------------------|-------|----------|----------|----------|--------|------|--------|--------------|----------|
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.22  | Vert(LL) | -0.00    | 2-4    | >999 | 360    | MT20         | 244/190  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.05  | Vert(CT) | -0.00    | 2-4    | >999 | 240    |              |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.00  | Horz(CT) | -0.00    | 3      | n/a  | n/a    |              |          |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-P | Wind(LL) | 0.00     | 2      | **** | 240    |              |          |
|               |                      |       |          |          |          |        |      |        | Weight: 8 lb | FT = 20% |

**LUMBER-**

TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.1

**BRACING-**

TOP CHORD Structural wood sheathing directly applied or 2-5-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

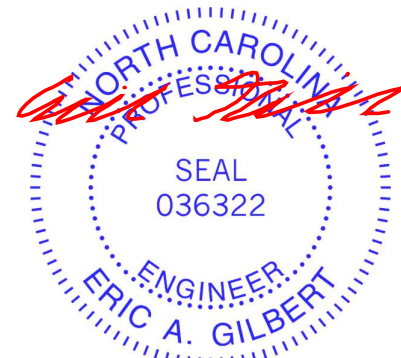
**REACTIONS.**

All bearings 2-5-0.  
(lb) - Max Horz 2=27(LC 6)  
Max Uplift All uplift 100 lb or less at joint(s) 3, 2  
Max Grav All reactions 250 lb or less at joint(s) 3, 3, 2, 4

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

**NOTES-**

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) and C-C Corner(3) zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable studs spaced at 2-0-0 oc.
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 3, 2.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 18, 2018

**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.



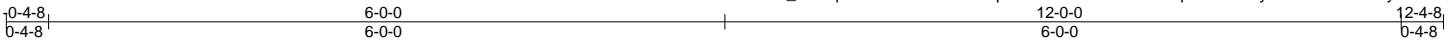
818 Soundside Road  
Edenton, NC 27932



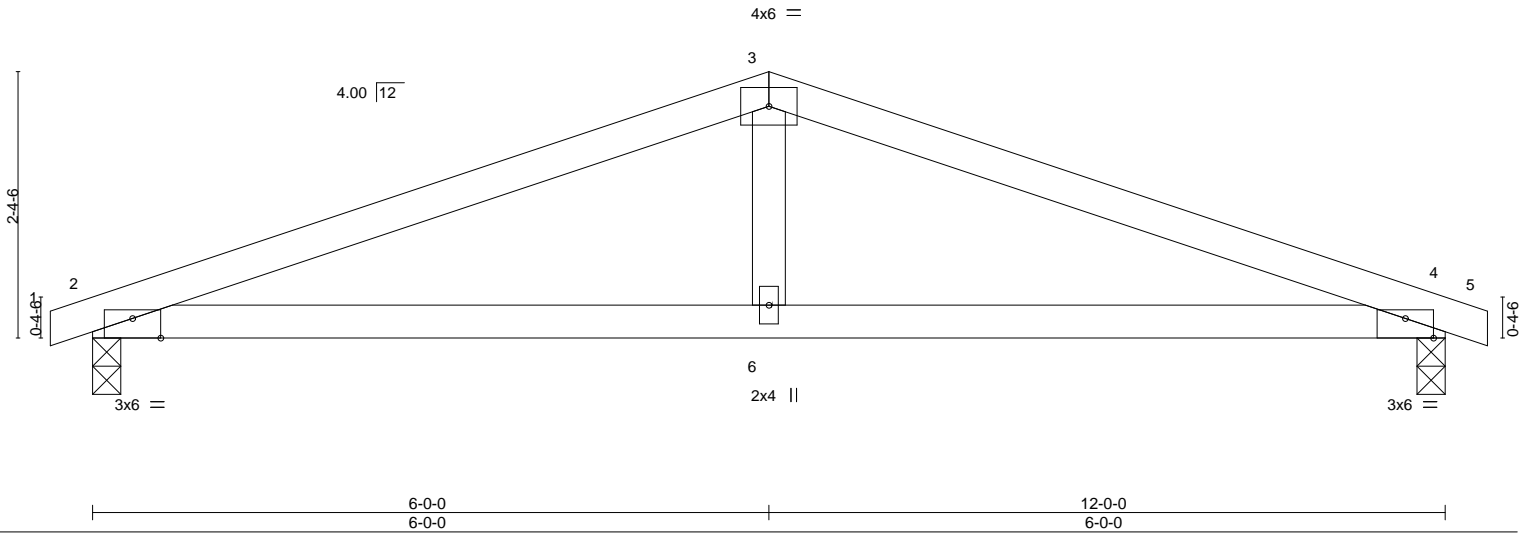
|                                       |       |            |     |     |           |                          |
|---------------------------------------|-------|------------|-----|-----|-----------|--------------------------|
| Job                                   | Truss | Truss Type | Qty | Ply | Topsail C | E12530287                |
| B0419-1977                            | PS-8  | Common     | 3   | 1   |           |                          |
| Comtech, Inc., Fayetteville, NC 28309 |       |            |     |     |           | Job Reference (optional) |

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:16 2018 Page 1

ID:WeUJ20\_wZYqtTA5MeulVrNlzoaVc-pOrXxoTkPMVQiXyRUep9b9BTbXyDbR7RP4FEBVy84oT



Scale = 1:20.4



|               |                      |       |          |          |       |       |        |     |               |          |
|---------------|----------------------|-------|----------|----------|-------|-------|--------|-----|---------------|----------|
| LOADING (psf) | SPACING-             | 2-0-0 | CSI.     | DEFL.    | in    | (loc) | l/defl | L/d | PLATES        | GRIP     |
| TCLL 20.0     | Plate Grip DOL       | 1.15  | TC 0.39  | Vert(LL) | 0.10  | 2-6   | >999   | 240 | MT20          | 244/190  |
| TCDL 10.0     | Lumber DOL           | 1.15  | BC 0.31  | Vert(CT) | -0.07 | 2-6   | >999   | 240 |               |          |
| BCLL 0.0 *    | Rep Stress Incr      | YES   | WB 0.11  | Horz(CT) | -0.01 | 4     | n/a    | n/a |               |          |
| BCDL 10.0     | Code IRC2015/TPI2014 |       | Matrix-S |          |       |       |        |     | Weight: 41 lb | FT = 20% |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 5-10-12 oc purlins. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 5-10-11 oc bracing.             |
| WEBS 2x4 SP No.3      |   |

**REACTIONS.** (lb/size) 2=500/0-3-0, 4=500/0-3-0  
 Max Horz 2=28(LC 14)  
 Max Uplift 2=-236(LC 6), 4=-236(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-873/1166, 3-4=-873/1166  
 BOT CHORD 2-6=-1022/771, 4-6=-1022/771  
 WEBS 3-6=-430/283

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; 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
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=236, 4=236.
  - See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



December 18, 2018

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



|   |       |            |     |     |           |  |
|---|-------|------------|-----|-----|-----------|--|
| Job   | Truss | Truss Type | Qty | Ply | Topsail C | E12530288  |
| B0419-1977  | PS-8G | GABLE      | 1   | 1   |           |  |
| Comtech, Inc., Fayetteville, NC 28309                                     |       |            |     |     |           | 8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:16 2018 Page 1 |
| ID:WeU20_wZYqtA5MeulVrNlzoaVc-pOrXxoTkPMVQiXYRUep9b9BR5XyGbr7RP4FEBVy84oT |       |            |     |     |           | Job Reference (optional)   |



Scale = 1:20.4

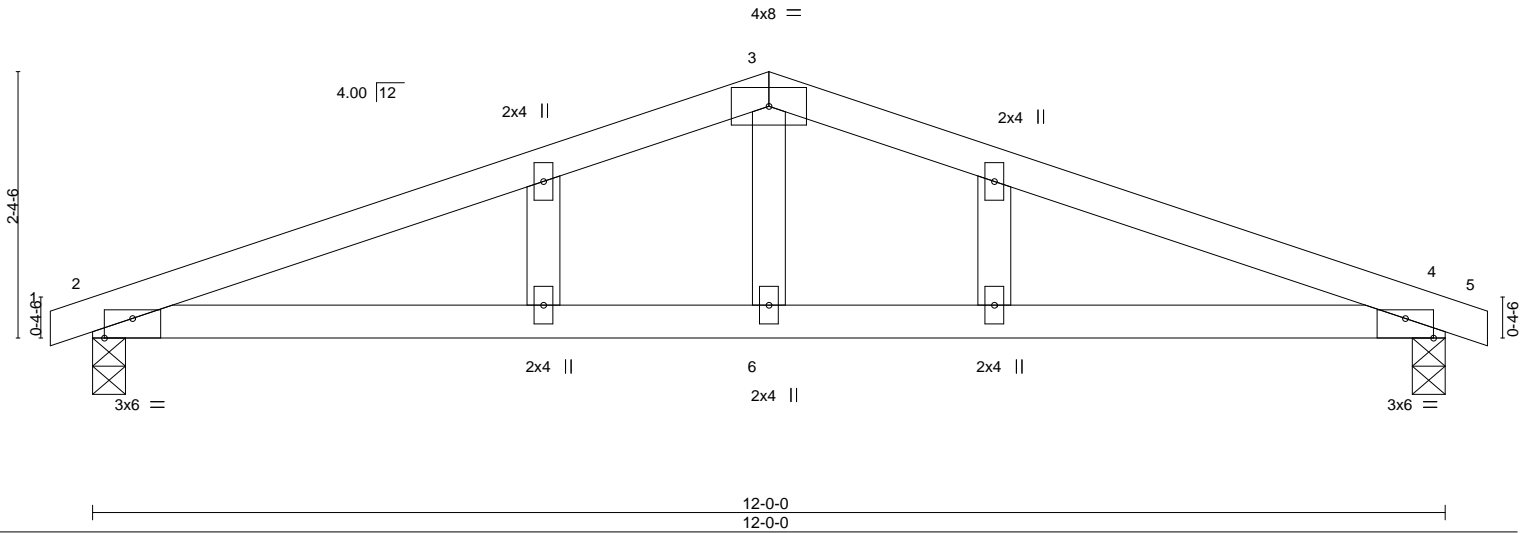


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [4:0-3-0,Edge]

|                      |                      |       |             |              |          |        |      |               |             |
|----------------------|----------------------|-------|-------------|--------------|----------|--------|------|---------------|-------------|
| <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 20.0            | Plate Grip DOL       | 1.15  | TC 0.55     | Vert(LL)     | 0.10     | 2-6    | >999 | MT20          | 244/190     |
| TCDL 10.0            | Lumber DOL           | 1.15  | BC 0.30     | Vert(CT)     | -0.07    | 2-6    | >999 |               |             |
| BCLL 0.0 *           | Rep Stress Incr      | YES   | WB 0.11     | Horz(CT)     | -0.02    | 4      | n/a  |               |             |
| BCDL 10.0            | Code IRC2015/TPI2014 |       | Matrix-S    |              |          |        |      |               |             |
|                      |                      |       |             |              |          |        |      | Weight: 44 lb | FT = 20%    |

|                       |  |
|-----------------------|--|
| <b>LUMBER-</b>        | <b>BRACING-</b>  |
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 5-11-2 oc purlins. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 5-4-2 oc bracing.              |
| OTHERS 2x4 SP No.3    |  |

**REACTIONS.** (lb/size) 2=500/0-3-8, 4=500/0-3-8  
 Max Horz 2=48(LC 10)  
 Max Uplift 2=-325(LC 6), 4=-325(LC 7)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-867/1422, 3-4=-867/1422  
 BOT CHORD 2-6=-1226/765, 4-6=-1226/765  
 WEBS 3-6=-396/282

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=6.0psf; BCCL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFERS (envelope) gable end zone and C-C Corner(3) zone; porch left and right exposed;C-C for members and forces & MWFERS 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) Gable studs spaced at 2-0-0 oc.
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (it=lb) 2=325, 4=325.
- 8) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



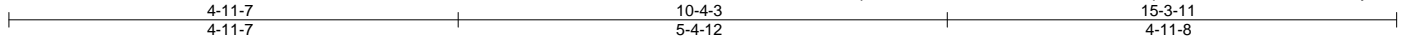
December 18, 2018

|                   |              |                     |          |          |           |           |
|-------------------|--------------|---------------------|----------|----------|-----------|-----------|
| Job<br>B0419-1977 | Truss<br>V01 | Truss Type<br>GABLE | Qty<br>1 | Ply<br>1 | Topsail C | E12530289 |
|-------------------|--------------|---------------------|----------|----------|-----------|-----------|

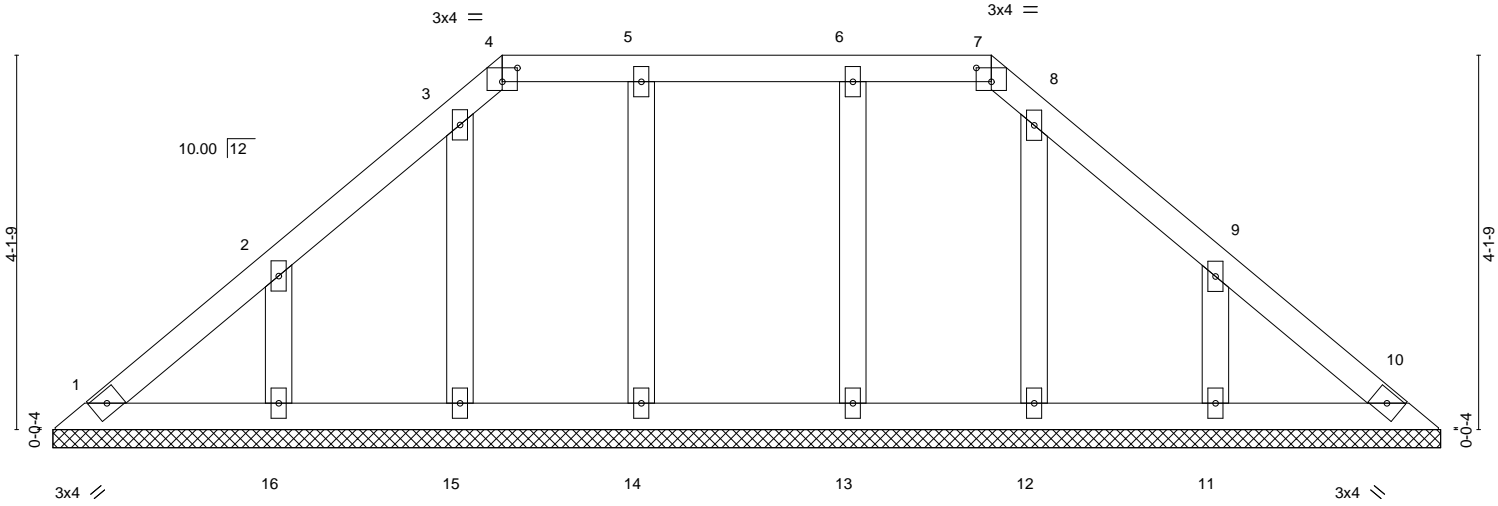
Comtech, Inc., Fayetteville, NC 28309

8.130 s Mar 11 2018 MiTek Industries, Inc. Mon Dec 17 10:44:18 2018 Page 1

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Scale = 1:25.4



|                       |                                    |
|-----------------------|------------------------------------|
| Plate Offsets (X,Y)-- | [4:0-2-0,0-1-13], [7:0-2-0,0-1-13] |
|-----------------------|------------------------------------|

|                      |                       |             |                                  |               |             |
|----------------------|-----------------------|-------------|----------------------------------|---------------|-------------|
| <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 20.0            | Plate Grip DOL 1.15   | TC 0.05     | Vert(LL) n/a - n/a 999           | MT20          | 244/190     |
| TCDL 10.0            | Lumber DOL 1.15       | BC 0.03     | Vert(CT) n/a - n/a 999           |               |             |
| BCLL 0.0 *           | Rep Stress Incr YES   | WB 0.05     | Horz(CT) 0.00 10 n/a n/a         |               |             |
| BCDL 10.0            | Code IRC2015/TPI2014  | Matrix-S    |                                  | Weight: 73 lb | FT = 20%    |

|                       |   |
|-----------------------|---|
| <b>LUMBER-</b>        | <b>BRACING-</b>   |
| TOP CHORD 2x4 SP No.1 | TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins. |
| BOT CHORD 2x4 SP No.1 | BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.            |
| OTHERS 2x4 SP No.3    |   |

**REACTIONS.** All bearings 15-3-11.  
 (lb) - Max Horz 1=-128(LC 6)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 14, 15, 13, 12 except 16=-167(LC 10), 11=-169(LC 11)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 10, 14, 15, 16, 13, 12, 11

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TC DL=6.0psf; BCDL=5.0psf; h=25ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone 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
  - Provide adequate drainage to prevent water ponding.
  - All plates are 2x4 MT20 unless otherwise indicated.
  - Gable requires continuous bottom chord bearing.
  - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 10, 14, 15, 13, 12 except (jt=lb) 16=167, 11=169.

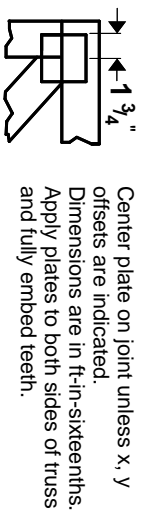


December 18, 2018

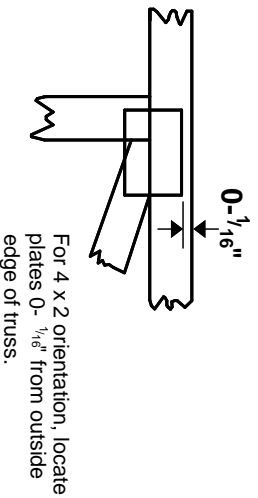
|   |   |
|---|---|
| <p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.</b></p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, 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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.</p> | <p>ENGINEERING BY</p> <p><b>TRENCO</b></p> <p>A MiTek Affiliate</p> <p>818 Soundside Road<br/>Edenton, NC 27932</p> |
|---|---|

# Symbols

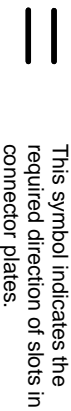
## PLATE LOCATION AND ORIENTATION



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- $\frac{1}{16}$ " from outside edge of truss.



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

## PLATE SIZE

4 X 4

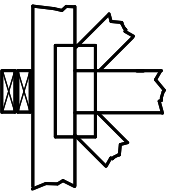
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

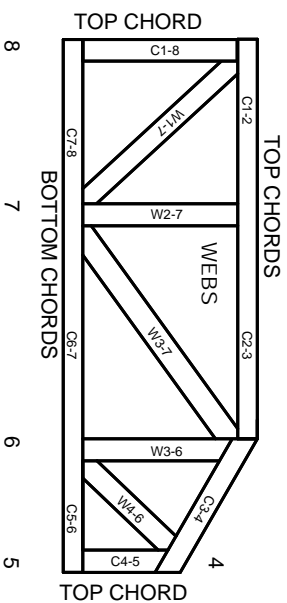


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TPI 1: 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



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

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

## PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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MITek Engineering Reference Sheet: MII-7473 rev. 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/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 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/TPI 1 Quality Criteria.