

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 20090080  
19 Mitchell Manor - Cedar El. A

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

Pages or sheets covered by this seal: E14880743 thru E14880758

My license renewal date for the state of North Carolina is December 31, 2020.

North Carolina COA: C-0844



September 18,2020

Strzyzewski, Marvin

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

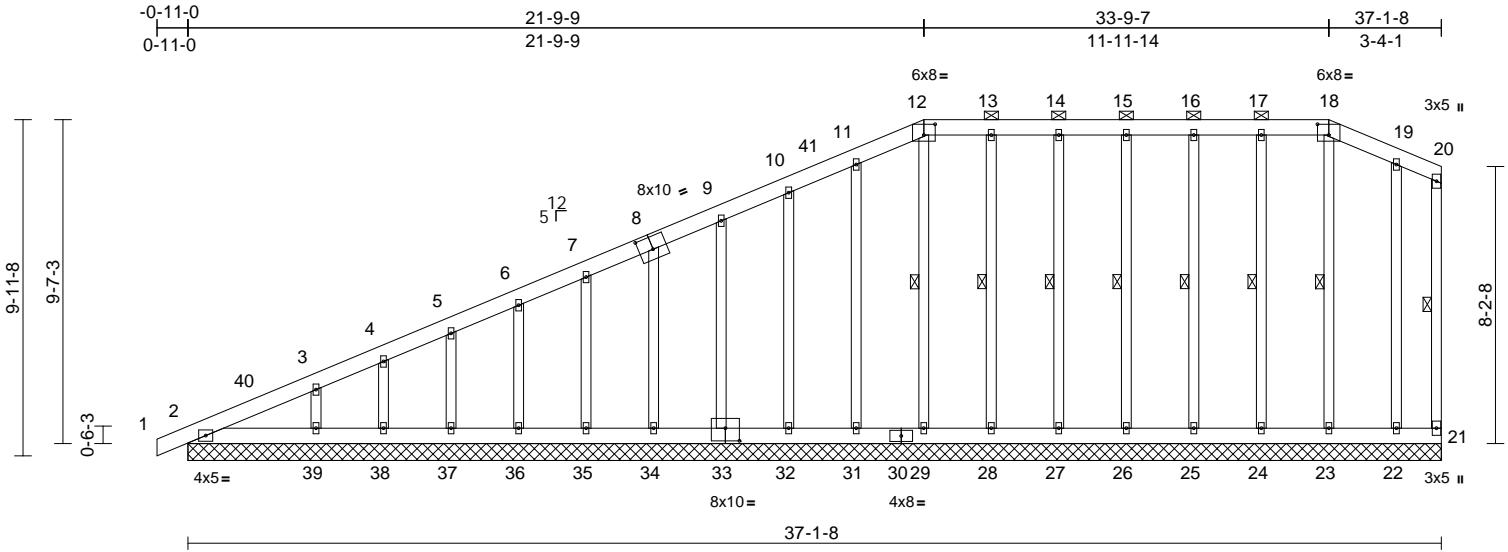
|                 |              |  |          |          |   |           |
|-----------------|--------------|--|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>A01 | Truss Type<br>Piggyback Base Supported Gable | Qty<br>2 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880743 |
|-----------------|--------------|--|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:29

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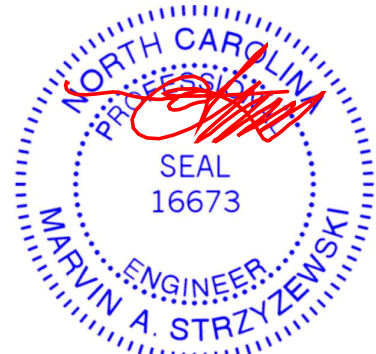
Plate Offsets (X, Y): [8:0-5-0,0-4-8], [12:0-4-0,0-3-13], [18:0-4-0,0-3-13], [33:0-5-0,0-4-8]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.41 | Vert(LL) | n/a   | -      | n/a | 999    | MT20           | 244/190  |
| Snow (Pf/Pg) | 20.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.10 | Vert(CT) | n/a   | -      | n/a | 999    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.15 | Horz(CT) | 0.00  | 21     | n/a | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |     |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |     |        |                |          |
|              |           |                 |                 |          |      |          |       |        |     |        | Weight: 355 lb | FT = 20% |

| LUMBER    |                                      | Max Grav | 2=190 (LC 2), 21=55 (LC 14), 22=186 (LC 14), 23=158 (LC 2), 24=166 (LC 1), 25=164 (LC 13), 26=163 (LC 13), 27=164 (LC 13), 28=166 (LC 1), 29=151 (LC 2), 31=172 (LC 14), 32=171 (LC 14), 33=175 (LC 14), 34=174 (LC 14), 35=166 (LC 14), 36=171 (LC 14), 37=183 (LC 14), 38=115 (LC 14), 39=319 (LC 14) | WEBS | 15-26=-122/96, 14-27=-124/98, 13-28=-126/86, 12-29=-112/49, 11-31=-131/176, 10-32=-133/136, 9-33=-135/122, 8-34=-132/122, 7-35=-126/115, 6-36=-132/122, 5-37=-137/127, 4-38=-97/83, 3-39=-230/231, 16-25=-124/98, 17-24=-126/88, 18-23=-117/41, 19-22=-101/74 |
|-----------|--------------------------------------|----------|---|------|---|
| TOP CHORD | 2x6 SP No.2                          |          |   |      |   |
| BOT CHORD | 2x6 SP No.2                          |          |   |      |   |
| WEBS      | 2x4 SP No.2                          |          |   |      |   |
| OTHERS    | 2x4 SP No.2 *Except*                 |          |   |      |   |
|           | 35-7,36-6,37-5,38-4,39-3:2x4 SP No.3 |          |   |      |   |

| BRACING   |   | FORCES    | (lb) - Maximum Compression/Maximum Tension  | NOTES   |
|-----------|---|-----------|---|---|
| TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 12-18. | TOP CHORD | 1-2=0/26, 2-40=-236/0, 3-40=-236/42, 3-4=-146/8, 4-5=-114/20, 5-6=-71/18, 6-7=-88/18, 7-8=-102/27, 8-9=-118/71, 9-10=-133/116, 10-41=-150/169, 11-41=-142/169, 11-12=-165/237, 12-13=-153/254, 13-14=-153/255, 14-15=-153/255, 15-16=-153/255, 16-17=-153/255, 17-18=-153/254, 18-19=-167/239, 19-20=-178/210, 20-21=-152/199 | 1) This truss has been checked for uniform roof live load only, except as noted.<br>2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCCL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 18-9-9, Corner (3) 18-9-9 to 24-9-9, Exterior (2) 24-9-9 to 30-9-7, Corner (3) 30-9-7 to 36-11-12; cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00 |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing.  | BOT CHORD | 2-39=-127/141, 38-39=-127/141, 37-38=-127/141, 36-37=-127/141, 35-36=-127/141, 34-35=-127/141, 33-34=-128/143, 32-33=-130/145, 31-32=-130/145, 30-31=-130/145, 29-30=-130/145, 28-29=-130/145, 27-28=-130/145, 26-27=-130/145, 25-26=-130/145, 24-25=-130/145, 23-24=-130/145, 22-23=-130/145, 21-22=-130/145                 |   |
| WEBS      | 1 Row at midpt  |           |   |   |

| REACTIONS  | (size) |  |
|------------|--------|--|
|            |        | 2=37-1-8, 21=37-1-8, 22=37-1-8, 23=37-1-8, 24=37-1-8, 25=37-1-8, 26=37-1-8, 27=37-1-8, 28=37-1-8, 29=37-1-8, 31=37-1-8, 32=37-1-8, 33=37-1-8, 34=37-1-8, 35=37-1-8, 36=37-1-8, 37=37-1-8, 38=37-1-8, 39=37-1-8   |
| Max Horiz  |        | 2=169 (LC 6)   |
| Max Uplift |        | 2=-126 (LC 6), 21=-75 (LC 6), 22=-214 (LC 6), 23=-21 (LC 6), 24=-93 (LC 6), 25=-97 (LC 6), 26=-97 (LC 6), 27=-98 (LC 6), 28=-86 (LC 6), 29=-49 (LC 6), 31=-176 (LC 6), 32=-136 (LC 6), 33=-122 (LC 6), 34=-122 (LC 6), 35=-116 (LC 6), 36=-121 (LC 6), 37=-130 (LC 6), 38=-75 (LC 6), 39=-248 (LC 6) |



September 18, 2020

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road  
Edenton, NC 27932

|                 |              |  |          |          |   |           |
|-----------------|--------------|--|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>A01 | Truss Type<br>Piggyback Base Supported Gable | Qty<br>2 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880743 |
|-----------------|--------------|--|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

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- 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) TLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10, Lu=0-0-0
- 5) This truss has been checked for uniform snow load only, except as noted.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 126 lb uplift at joint 2, 75 lb uplift at joint 21, 97 lb uplift at joint 26, 98 lb uplift at joint 27, 86 lb uplift at joint 28, 49 lb uplift at joint 29, 176 lb uplift at joint 31, 136 lb uplift at joint 32, 122 lb uplift at joint 33, 122 lb uplift at joint 34, 116 lb uplift at joint 35, 121 lb uplift at joint 36, 130 lb uplift at joint 37, 75 lb uplift at joint 38, 248 lb uplift at joint 39, 97 lb uplift at joint 25, 93 lb uplift at joint 24, 21 lb uplift at joint 23 and 214 lb uplift at joint 22.
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard

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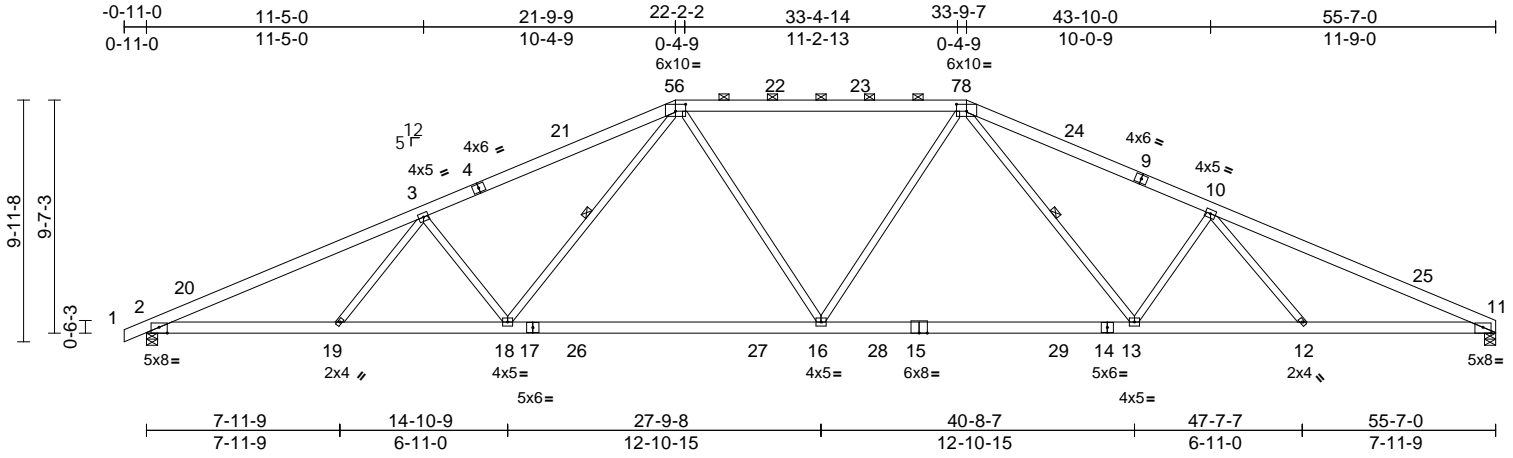
818 Soundside Road  
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|                 |              |                              |          |          |   |           |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>A02 | Truss Type<br>Piggyback Base | Qty<br>8 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880744 |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

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Scale = 1:94.9

Plate Offsets (X, Y): [2:0-4-0,Edge], [5:0-5-0,0-3-7], [7:0-5-0,0-3-7], [11:0-4-0,Edge]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.70 | Vert(LL) | -0.40 | 13-16  | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 20.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.97 | Vert(CT) | -0.75 | 13-16  | >884 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.45 | Horz(CT) | 0.18  | 11     | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |                |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 369 lb | FT = 20% |

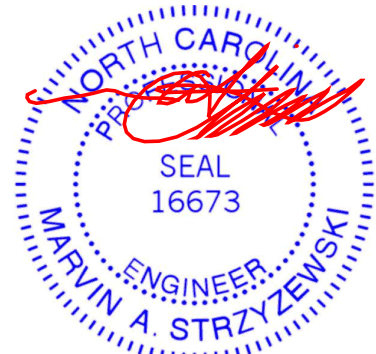
| LUMBER   | WEBS   |
|--|--|
| TOP CHORD 2x6 SP 2400F 2.0E *Except* 4-5,8-9:2x6 SP No.2     | 3-19=-27/335, 3-18=-759/487, 5-18=-492/1179, 6-16=-2/378, 7-16=-1/378, 8-13=-526/1213, 10-13=-757/499, 10-12=-24/344 |
| BOT CHORD 2x6 SP 2400F 2.0E *Except* 14-11,15-14:2x6 SP No.2 |  |
| WEBS 2x4 SP No.2   |  |

| BRACING  | NOTES  |
|--|--|
| TOP CHORD Structural wood sheathing directly applied or 2-9-9 oc purlins, except 2-0-0 oc purlins (4-8-3 max.): 5-8. | 1) This truss has been checked for uniform roof live load only, except as noted.   |
| BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  | 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 17-6-10, Exterior (2) 17-6-10 to 26-0-7, Interior (1) 26-0-7 to 29-6-9, Exterior (2) 29-6-9 to 38-0-6, Interior (1) 38-0-6 to 52-4-4, Exterior (2) 52-4-4 to 55-4-4; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00 |
| WEBS 1 Row at midpt 5-18, 8-13   | 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10, Lu=0-0-0   |

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

| REACTIONS                                  | FORCES  |
|--|---|
| (size) 2=0-5-8, 11=0-5-8                   | (lb) - Maximum Compression/Maximum Tension  |
| Max Horiz 2=21 (LC 6)                      | TOP CHORD 1-2=0/27, 2-20=-5538/2463, 3-20=-5440/2463, 3-4=-5013/2331, 4-21=-4908/2331, 5-21=-4895/2331, 5-6=-3863/1957, 6-22=-4016/1950, 22-23=-4016/1950, 7-23=-4016/1950, 7-8=-3861/1957, 8-24=-4922/2358, 9-24=-4930/2358, 9-10=-5034/2358, 10-25=-5415/2461, 11-25=-5491/2461 |
| Max Uplift 2=-1254 (LC 6), 11=-1173 (LC 6) | BOT CHORD 2-19=-2166/4971, 18-19=-2150/4877, 17-18=-1568/3721, 17-26=-1568/3721, 26-27=-1568/3721, 16-27=-1568/3721, 16-28=-1568/3719, 15-28=-1568/3719, 15-29=-1568/3719, 14-29=-1568/3719, 13-14=-1568/3719, 12-13=-2153/4857, 11-12=-2168/4948                                 |
| Max Grav 2=2556 (LC 14), 11=2507 (LC 14)   |   |

- This truss has been checked for uniform roof live load only, except as noted.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 17-6-10, Exterior (2) 17-6-10 to 26-0-7, Interior (1) 26-0-7 to 29-6-9, Exterior (2) 29-6-9 to 38-0-6, Interior (1) 38-0-6 to 52-4-4, Exterior (2) 52-4-4 to 55-4-4; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10, Lu=0-0-0
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit 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 1254 lb uplift at joint 2 and 1173 lb uplift at joint 11.



September 18, 2020

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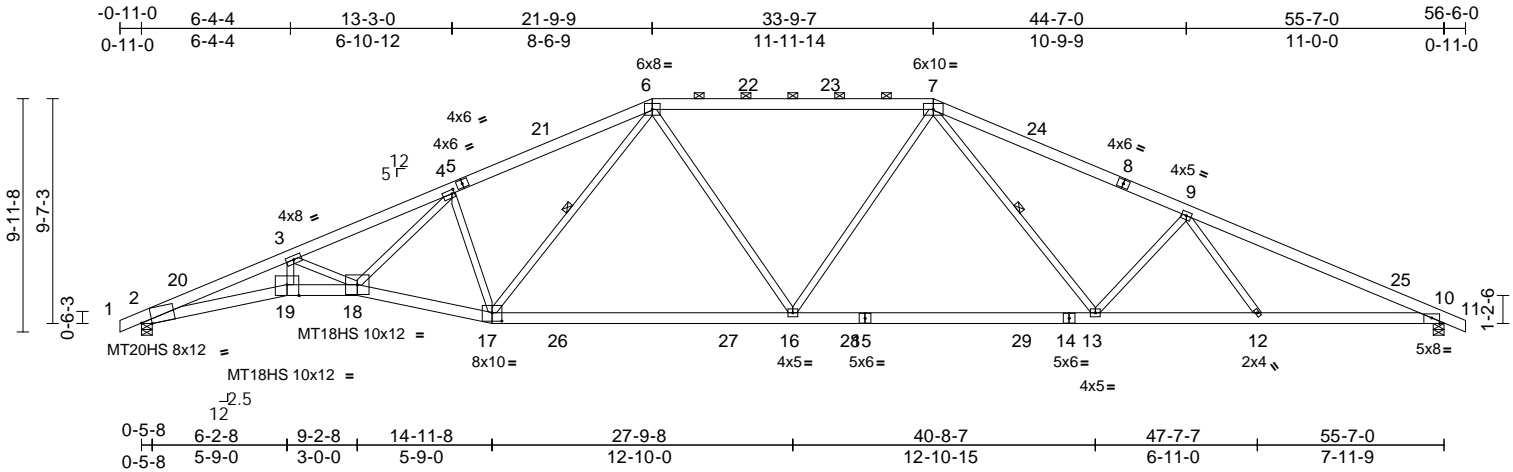
|                 |              |                              |          |          |   |           |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>A03 | Truss Type<br>Piggyback Base | Qty<br>1 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880745 |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:32

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Scale = 1:98.3

Plate Offsets (X, Y): [2:0-5-6,Edge], [4:0-1-4,0-2-0], [10:0-4-0,Edge], [17:0-5-0,0-4-4], [19:0-6-0,Edge]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.57 | Vert(LL) | -0.47 | 16-17  | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 20.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.96 | Vert(CT) | -0.93 | 16-17  | >712 | 180    | MT20HS         | 187/143  |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.98 | Horz(CT) | 0.35  | 10     | n/a  | n/a    | MT18HS         | 244/190  |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |                |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 377 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x6 SP 2400F 2.0E  
BOT CHORD 2x6 SP 2400F 2.0E \*Except\*  
18-17,14-10,15-14:2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 19-3,18-3:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-1-3 oc purlins, except 2-0-0 oc purlins (4-5-14 max.): 6-7.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.  
WEBS 1 Row at midpt 6-17, 7-13

**REACTIONS** (size) 2=0-5-8, 10=0-5-8  
Max Horiz 2=-1 (LC 6)  
Max Uplift 2=-1252 (LC 6), 10=-1252 (LC 6)  
Max Grav 2=2551 (LC 14), 10=2551 (LC 14)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/24, 2-20=-9903/4393, 3-20=-9836/4393, 3-4=-7571/3418, 4-5=-4974/2353, 5-21=-4966/2353, 6-21=-4891/2353, 6-22=-4009/1941, 22-23=-4009/1941, 7-23=-4009/1941, 7-24=-4858/2308, 8-24=-4873/2308, 8-9=-4984/2308, 9-25=-5449/2467, 10-25=-5540/2467, 10-11=0/27  
BOT CHORD 2-19=-3993/9155, 18-19=-3841/8786, 17-18=-2165/5047, 17-26=-1537/3698, 26-27=-1537/3698, 16-27=-1537/3698, 16-28=-1540/3709, 15-28=-1540/3709, 15-29=-1540/3709, 14-29=-1540/3709, 13-14=-1540/3709, 12-13=-2145/4906, 10-12=-2154/4983

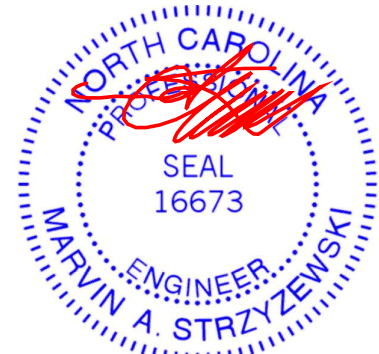
**WEBS** 3-19=-750/1816, 3-18=-2104/969, 4-18=-1267/2912, 4-17=-1778/901, 6-17=-531/1201, 6-16=-3/401, 7-16=0/382, 7-13=-475/1152, 9-13=-779/495, 9-12=-16/322

**NOTES**

- This truss has been checked for uniform roof live load only, except as noted.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 17-6-10, Exterior (2) 17-6-10 to 26-0-7, Interior (1) 26-0-7 to 29-6-9, Exterior (2) 29-6-9 to 38-0-6, Interior (1) 38-0-6 to 53-6-0, Exterior (2) 53-6-0 to 56-6-0; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10, Lu=0-0-0
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1252 lb uplift at joint 2 and 1252 lb uplift at joint 10.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



September 18, 2020

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

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818 Soundside Road  
Edenton, NC 27932



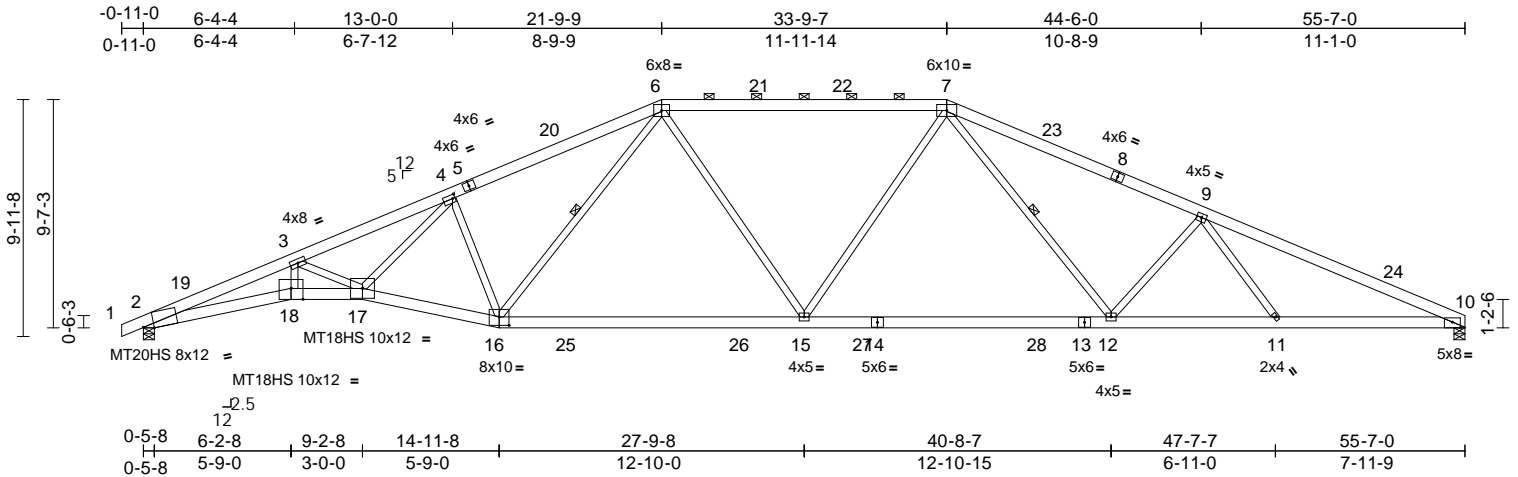
|                 |              |                              |          |          |   |           |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>A04 | Truss Type<br>Piggyback Base | Qty<br>1 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880746 |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:33

Page: 1

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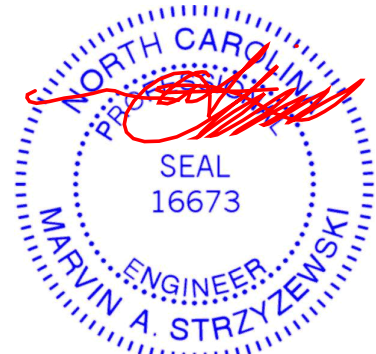


Scale = 1:96.9

Plate Offsets (X, Y): [2:0-5-6,Edge], [4:0-1-4,0-2-0], [10:0-4-0,Edge], [16:0-5-0,0-4-4], [18:0-6-0,Edge]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.58 | Vert(LL) | -0.48 | 15-16  | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 20.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.96 | Vert(CT) | -0.95 | 15-16  | >698 | 180    | MT20HS         | 187/143  |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 1.00 | Horz(CT) | 0.34  | 10     | n/a  | n/a    | MT18HS         | 244/190  |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |                |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 375 lb | FT = 20% |

| LUMBER  | WEBS   |
|---|--|
| TOP CHORD 2x6 SP 2400F 2.0E *Except* 5-6:2x6 SP No.2  | 3-18=-757/1812, 3-17=-2068/953, 4-17=-1256/2865, 4-16=-1822/930, 6-16=-528/1195, 6-15=-6/402, 7-15=0/381, 7-12=-493/1163, 9-12=-780/508, 9-11=-16/328  |
| BOT CHORD 2x6 SP 2400F 2.0E *Except* 17-16,13-10,14-13:2x6 SP No.2  |  |
| WEBS 2x4 SP No.2 *Except* 18-3,17-3:2x4 SP No.3   |  |
| BRACING   | NOTES  |
| TOP CHORD Structural wood sheathing directly applied or 2-11-13 oc purlins, except 2-0-0 oc purlins (4-5-8 max.): 6-7.  | 1) This truss has been checked for uniform roof live load only, except as noted.   |
| BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.   | 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 17-6-10, Exterior (2) 17-6-10 to 26-0-7, Interior (1) 26-0-7 to 29-6-9, Exterior (2) 29-6-9 to 38-0-6, Interior (1) 38-0-6 to 52-4-4, Exterior (2) 52-4-4 to 55-4-4; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00 |
| WEBS 1 Row at midpt 6-16, 7-12  | 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10, Lu=0-0-0   |
| REACTIONS   | LOAD CASE(S)   |
| (size) 2=0-5-8, 10=0-5-8  | Standard   |
| Max Horiz 2=19 (LC 6)   |  |
| Max Uplift 2=-1254 (LC 6), 10=-1173 (LC 6)  |  |
| Max Grav 2=2551 (LC 14), 10=2503 (LC 14)  |  |
| FORCES  |  |
| (lb) - Maximum Compression/Maximum Tension  |  |
| TOP CHORD 1-2=0/24, 2-19=-9886/4407, 3-19=-9817/4407, 3-4=-7578/3440, 4-5=-4973/2354, 5-20=-4960/2354, 6-20=-4885/2354, 6-21=-4010/1946, 21-22=-4010/1946, 7-22=-4010/1946, 7-23=-4869/2329, 8-23=-4883/2329, 8-9=-4993/2329, 9-24=-5446/2485, 10-24=-5515/2485 |  |
| BOT CHORD 2-18=-4027/9134, 17-18=-3873/8766, 16-17=-2238/5134, 16-25=-1561/3694, 25-26=-1561/3694, 15-26=-1561/3694, 15-27=-1567/3708, 14-27=-1567/3708, 14-28=-1567/3708, 13-28=-1567/3708, 12-13=-1567/3708, 11-12=-2186/4902, 10-11=-2195/4978               |  |



September 18, 2020

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

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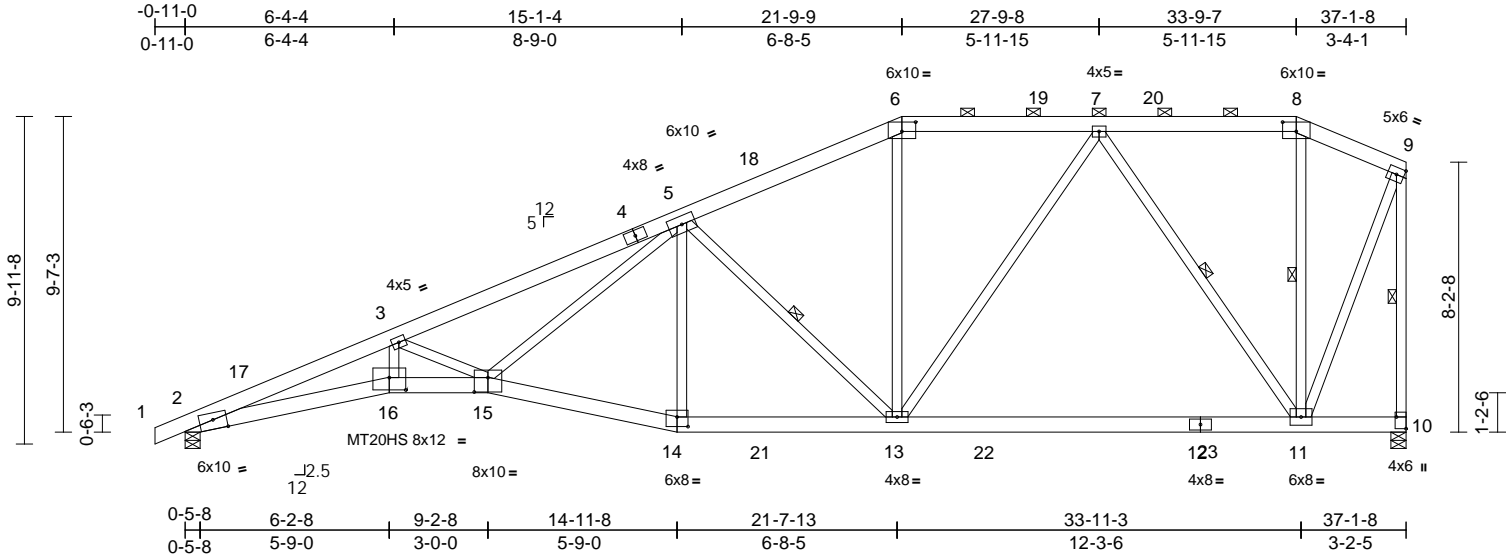
818 Soundside Road  
Edenton, NC 27932

|                 |              |                              |          |          |   |           |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>A05 | Truss Type<br>Piggyback Base | Qty<br>5 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880747 |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:33  
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Page: 1



Scale = 1:70.1

Plate Offsets (X, Y): [2:0-5-0,Edge], [6:0-5-0,0-3-7], [8:0-5-0,0-3-7], [10:Edge,0-3-8], [14:0-4-0,0-3-8], [15:0-5-0,0-5-4], [16:0-6-0,0-4-8]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.71 | Vert(LL) | -0.26 | 11-13  | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 20.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.98 | Vert(CT) | -0.52 | 15     | >848 | 180    | MT20HS         | 187/143  |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.96 | Horz(CT) | 0.21  | 10     | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |                |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 301 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 16-3,15-3:2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-9-0 oc purlins, except end verticals, and 2-0-0 oc purlins (5-5-2 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

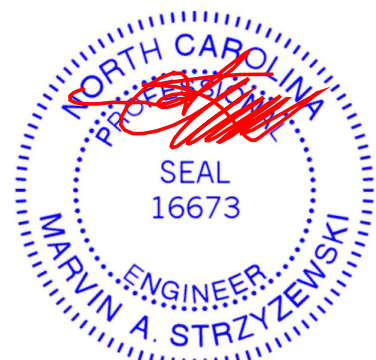
**REACTIONS** (size) 2=0-5-8, 10=0-5-8  
Max Horiz 2=121 (LC 7)  
Max Uplift 2=-856 (LC 6), 10=-836 (LC 6)  
Max Grav 2=1679 (LC 14), 10=1686 (LC 14)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/24, 2-17=-6159/2781, 3-17=-6111/2781, 3-4=-4425/2023, 4-5=-4291/2023, 5-18=-2021/1005, 6-18=-1941/1005, 6-19=-1799/983, 7-19=-1798/983, 7-20=-678/447, 8-20=-678/447, 8-9=-760/455, 9-10=-1827/870  
BOT CHORD 2-16=-2550/5595, 15-16=-2452/5363, 14-15=-1030/2358, 14-21=-1014/2309, 13-21=-1014/2309, 13-22=-457/1163, 12-22=-457/1163, 12-23=-457/1163, 11-23=-457/1163, 10-11=-128/142  
WEBS 3-16=-482/1145, 3-15=-1663/831, 5-15=-935/2104, 5-14=-340/202, 5-13=-996/538, 6-13=-120/425, 7-13=-303/759, 7-11=-1250/660, 8-11=-69/73, 9-11=-635/1543

**NOTES**  
1) This truss has been checked for uniform roof live load only, except as noted.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 17-6-10, Exterior (2) 17-6-10 to 26-0-7, Interior (1) 26-0-7 to 29-6-9, Exterior (2) 29-6-9 to 36-11-12; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10, Lu=0-0-0
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 836 lb uplift at joint 10 and 856 lb uplift at joint 2.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



September 18, 2020

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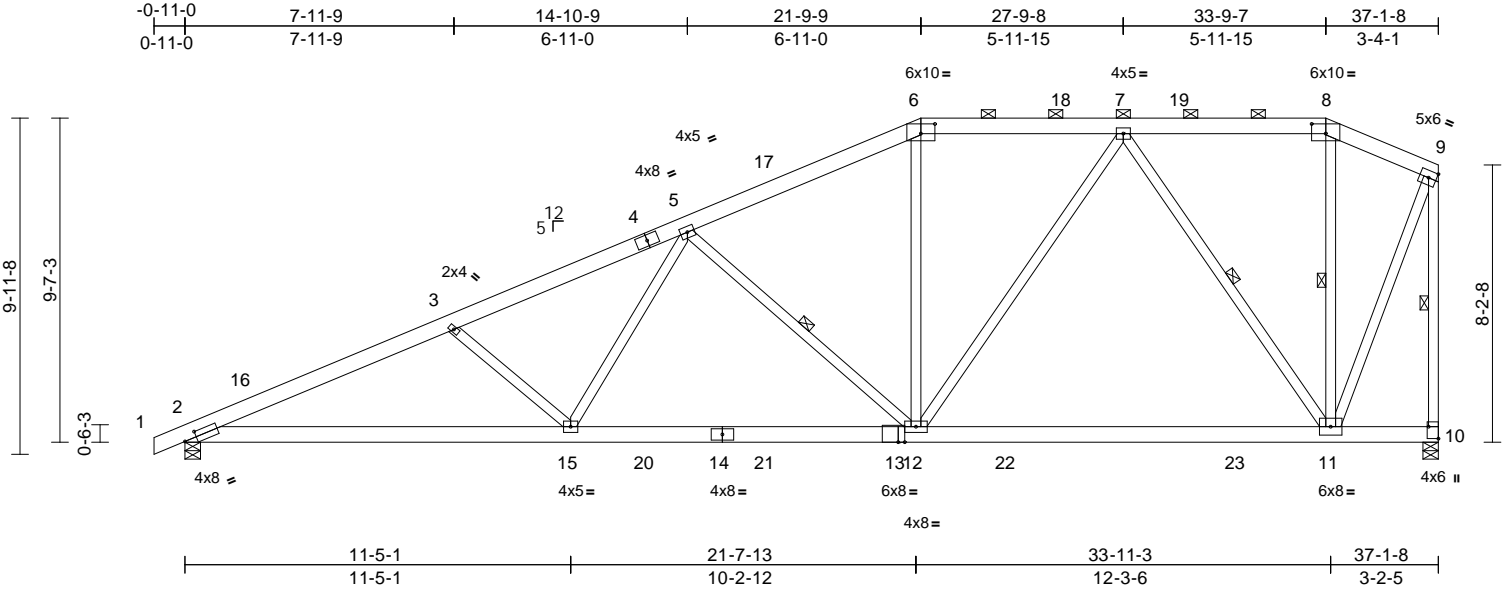
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate  
818 Soundside Road  
Edenton, NC 27932

|                 |              |                              |          |          |   |           |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>A06 | Truss Type<br>Piggyback Base | Qty<br>5 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880748 |
|-----------------|--------------|------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:33  
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Page: 1



Scale = 1:68.2

Plate Offsets (X, Y): [2:0-4-5,0-2-0], [6:0-5-0,0-3-7], [8:0-5-0,0-3-7], [10:Edge,0-3-8], [13:0-2-5,Edge]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.71 | Vert(LL) | -0.21 | 11-12  | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 20.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.75 | Vert(CT) | -0.39 | 11-12  | >999 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.74 | Horz(CT) | 0.07  | 10     | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |                |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 291 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.2 \*Except\* 15-3:2x4 SP No.3

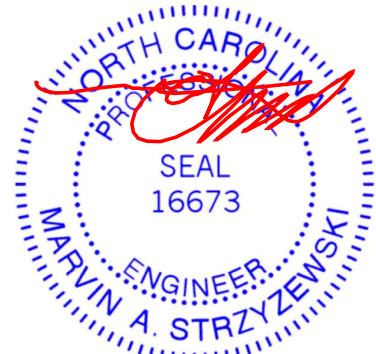
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 3-7-10 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-15 max.): 6-8.  
BOT CHORD Rigid ceiling directly applied or 6-3-15 oc bracing.  
WEBS 1 Row at midpt 5-12, 7-11, 8-11, 9-10

**REACTIONS** (size) 2=0-5-8, 10=0-5-8  
Max Horiz 2=122 (LC 7)  
Max Uplift 2=-856 (LC 6), 10=-836 (LC 6)  
Max Grav 2=1697 (LC 14), 10=1696 (LC 14)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/27, 2-16=-3438/1530, 3-16=-3387/1530, 3-4=-3103/1400, 4-5=-2980/1400, 5-17=-2037/999, 6-17=-1964/999, 6-18=-1824/986, 7-18=-1823/986, 7-19=-680/447, 8-19=-680/447, 8-9=-762/455, 9-10=-1831/869  
BOT CHORD 2-15=-1352/2998, 15-20=-1008/2320, 14-20=-1008/2320, 14-21=-1008/2320, 13-21=-1008/2320, 12-13=-1008/2320, 12-22=-457/1173, 22-23=-457/1173, 11-23=-457/1173, 10-11=-128/142  
WEBS 3-15=-471/307, 5-15=-238/677, 5-12=-955/514, 6-12=-94/389, 7-12=-309/785, 7-11=-1265/659, 8-11=-71/71, 9-11=-635/1547

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 17-6-10, Exterior (2) 17-6-10 to 26-0-7, Interior (1) 26-0-7 to 29-6-9, Exterior (2) 29-6-9 to 36-11-12; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10, Lu=0-0-0
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit 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 856 lb uplift at joint 2 and 836 lb uplift at joint 10.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**LOAD CASE(S)** Standard



September 18, 2020

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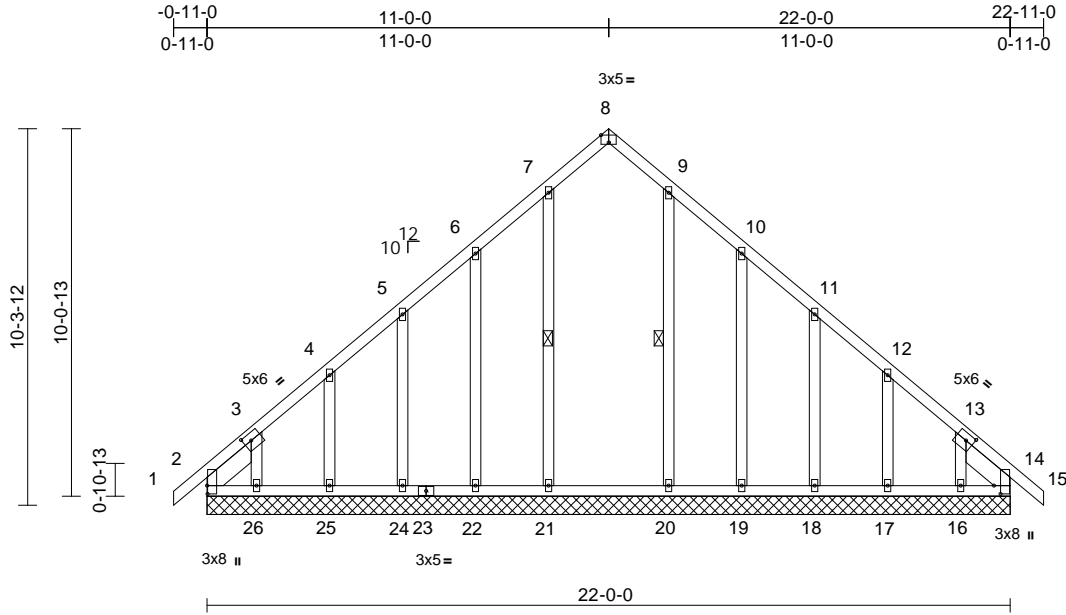


|                 |              |                                      |          |          |   |           |
|-----------------|--------------|--------------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>B01 | Truss Type<br>Common Supported Gable | Qty<br>1 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880749 |
|-----------------|--------------|--------------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:34  
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Page: 1



Scale = 1:63.1

Plate Offsets (X, Y): [2:0-2-12,0-0-2], [3:0-2-8,0-2-4], [8:0-2-8,Edge], [13:0-2-8,0-2-4], [14:0-2-12,0-2-2]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.08 | Vert(LL) | n/a   | -      | n/a | 999    | MT20           | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.09 | Vert(CT) | n/a   | -      | n/a | 999    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.16 | Horz(CT) | 0.01  | 14     | n/a | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |     |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |     |        |                |          |
|              |           |                 |                 |          |      |          |       |        |     |        | Weight: 159 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3 \*Except\*  
21-7,20-9,22-6,19-10:2x4 SP No.2  
SLIDER Left 2x6 SP No.2 -- 1-8-10, Right 2x6 SP No.2 -- 1-8-10

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

WEBS 1 Row at midpt 7-21, 9-20

**REACTIONS** (size) 2=22-0-0, 14=22-0-0, 16=22-0-0, 17=22-0-0, 18=22-0-0, 19=22-0-0, 20=22-0-0, 21=22-0-0, 22=22-0-0, 24=22-0-0, 25=22-0-0, 26=22-0-0  
Max Uplift 2=258 (LC 7), 14=258 (LC 7), 16=246 (LC 6), 17=153 (LC 6), 18=144 (LC 6), 19=173 (LC 6), 20=87 (LC 6), 21=87 (LC 6), 22=173 (LC 6), 24=144 (LC 6), 25=153 (LC 6), 26=246 (LC 6)  
Max Grav 2=255 (LC 6), 14=255 (LC 6), 16=297 (LC 7), 17=235 (LC 11), 18=236 (LC 11), 19=224 (LC 11), 20=276 (LC 11), 21=276 (LC 11), 22=224 (LC 11), 24=236 (LC 11), 25=235 (LC 11), 26=297 (LC 7)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/16, 2-3=444/376, 3-4=272/220, 4-5=173/138, 5-6=98/61, 6-7=99/30, 7-8=135/85, 8-9=135/85, 9-10=99/30, 10-11=98/61, 11-12=173/138, 12-13=272/220, 13-14=444/376, 14-15=0/16

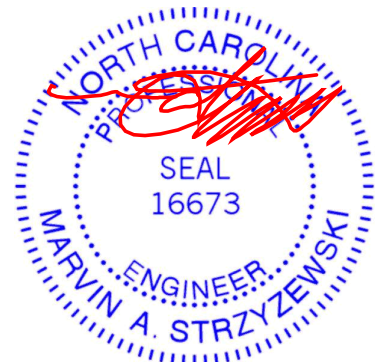
**BOT CHORD** 2-26=-245/333, 25-26=-245/333, 24-25=-245/333, 23-24=-245/333, 22-23=-245/333, 21-22=-245/333, 20-21=-245/333, 19-20=-245/333, 18-19=-245/333, 17-18=-245/333, 16-17=-245/333, 14-16=-245/333  
**WEBS** 7-21=-156/87, 9-20=-156/87, 6-22=-207/173, 5-24=-190/144, 4-25=-196/154, 3-26=-254/242, 10-19=-207/173, 11-18=-190/144, 12-17=-196/154, 13-16=-254/242

**NOTES**

- 1) This truss has been checked for uniform roof live load only, except as noted.
- 2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed: C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 8-0-0, Corner (3) 8-0-0 to 14-0-0, Exterior (2) 14-0-0 to 19-11-0, Corner (3) 19-11-0 to 22-11-0; cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- 5) This truss has been checked for uniform snow load only, except as noted.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.

- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 258 lb uplift at joint 2, 258 lb uplift at joint 14, 87 lb uplift at joint 21, 87 lb uplift at joint 20, 173 lb uplift at joint 22, 144 lb uplift at joint 24, 153 lb uplift at joint 25, 246 lb uplift at joint 26, 173 lb uplift at joint 19, 144 lb uplift at joint 18, 153 lb uplift at joint 17 and 246 lb uplift at joint 16.

**LOAD CASE(S)** Standard



September 18, 2020

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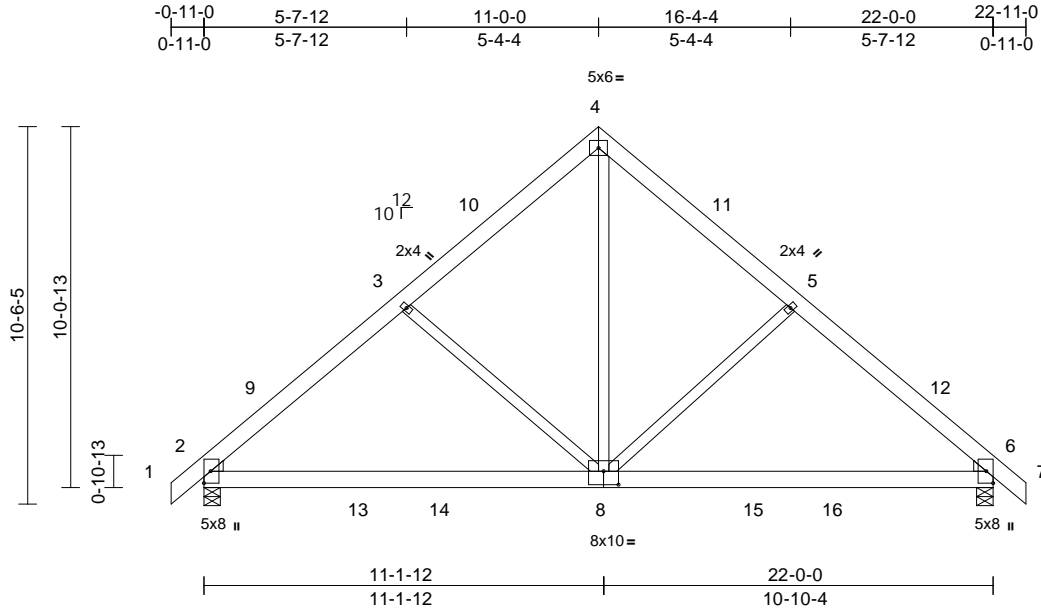
818 Soundside Road  
Edenton, NC 27932

|                 |              |                      |          |          |   |           |
|-----------------|--------------|----------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>B02 | Truss Type<br>Common | Qty<br>1 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880750 |
|-----------------|--------------|----------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:34  
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Page: 1



Scale = 1:64.2

Plate Offsets (X, Y): [8-0-5-0,0-4-8]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.21 | Vert(LL) | -0.08 | 2-8    | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.52 | Vert(CT) | -0.17 | 2-8    | >999 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.56 | Horz(CT) | 0.02  | 6      | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |                |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 161 lb | FT = 20% |

**LUMBER**

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.2  
 WEDGE Left: 2x4 SP No.3  
 Right: 2x4 SP No.3

**BRACING**

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

**REACTIONS**

(size) 2=0-5-8, 6=0-5-8  
 Max Uplift 2=509 (LC 6), 6=509 (LC 6)  
 Max Grav 2=1150 (LC 11), 6=1149 (LC 11)

**FORCES**

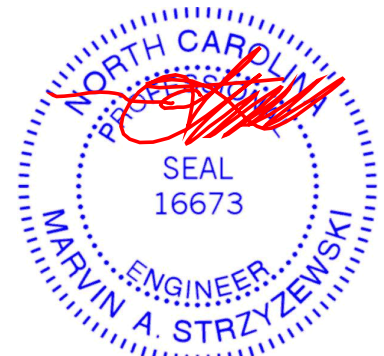
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/30, 2-9=-1291/496, 3-9=-1241/496,  
 3-10=-1077/459, 4-10=-978/459,  
 4-11=-995/467, 5-11=-1094/467,  
 5-12=-1246/496, 6-12=-1297/496, 6-7=0/30  
 BOT CHORD 2-13=-244/862, 13-14=-244/862,  
 8-14=-244/862, 8-15=-244/864,  
 15-16=-244/864, 6-16=-244/864  
 WEBS 4-8=-378/885, 3-8=-408/279, 5-8=-404/278

**NOTES**

- This truss has been checked for uniform roof live load only, except as noted.
- Wind: ASCE 7-10; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 8-0-0, Exterior (2) 8-0-0 to 14-0-0, Interior (1) 14-0-0 to 19-11-0, Exterior (2) 19-11-0 to 22-11-0; cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit 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 509 lb uplift at joint 2 and 509 lb uplift at joint 6.

**LOAD CASE(S)** Standard



September 18, 2020

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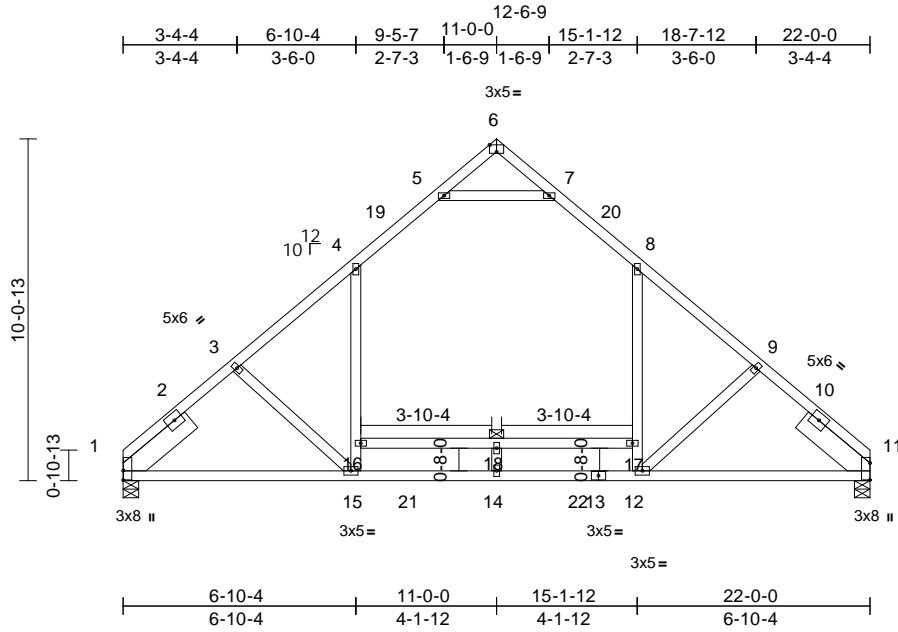
818 Soundside Road  
 Edenton, NC 27932

|                 |              |                      |          |          |   |           |
|-----------------|--------------|----------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>B03 | Truss Type<br>Common | Qty<br>9 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880751 |
|-----------------|--------------|----------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



Scale = 1:67.9

Plate Offsets (X, Y): [1:Edge,0-0-0], [6:0-2-8,Edge], [11:Edge,0-0-0]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP           |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|----------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.93 | Vert(LL) | -0.16 | 14     | >999 | 240    | MT20           | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.56 | Vert(CT) | -0.55 | 14     | >482 | 180    |                |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.47 | Horz(CT) | 0.03  | 11     | n/a  | n/a    |                |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |                |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |                |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 141 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.1  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3 \*Except\* 4-15,8-12,16-17:2x4 SP No.2  
SLIDER Left 2x8 SP 2400F 2.0E -- 2-6-0, Right 2x8 SP 2400F 2.0E -- 2-6-0

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 16-17

**REACTIONS** (size) 1=0-5-8, 11=0-5-8  
Max Uplift 1=-351 (LC 6), 11=-351 (LC 6)  
Max Grav 1=1173 (LC 10), 11=1173 (LC 10)

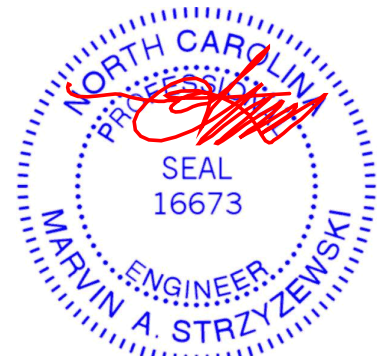
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-1502/404, 2-3=-1445/410, 3-4=-1348/377, 4-19=-902/345, 5-19=-833/345, 5-6=-84/400, 6-7=-84/400, 7-20=-833/345, 8-20=-902/345, 8-9=-1348/377, 9-10=-1445/410, 10-11=-1502/404  
BOT CHORD 1-15=-230/1012, 15-21=-99/891, 14-21=-99/891, 14-22=-99/891, 13-22=-99/891, 12-13=-99/891, 11-12=-230/1012  
WEBS 15-16=-54/464, 4-16=-41/505, 12-17=-54/464, 8-17=-41/505, 16-18=-159/50, 17-18=-159/50, 14-18=0/83, 5-7=-1522/559, 3-15=-344/234, 9-12=-344/234

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) 0-0-0 to 3-2-15, Interior (1) 3-2-15 to 8-0-0, Exterior (2) 8-0-0 to 14-0-0, Interior (1) 14-0-0 to 18-9-1, Exterior (2) 18-9-1 to 22-0-0; cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- 200.0lb AC unit load placed on the bottom chord, 11-0-0 from left end, supported at two points, 5-0-0 apart.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 351 lb uplift at joint 1 and 351 lb uplift at joint 11.

**LOAD CASE(S)** Standard

**NOTES**

- This truss has been checked for uniform roof live load only, except as noted.



September 18, 2020

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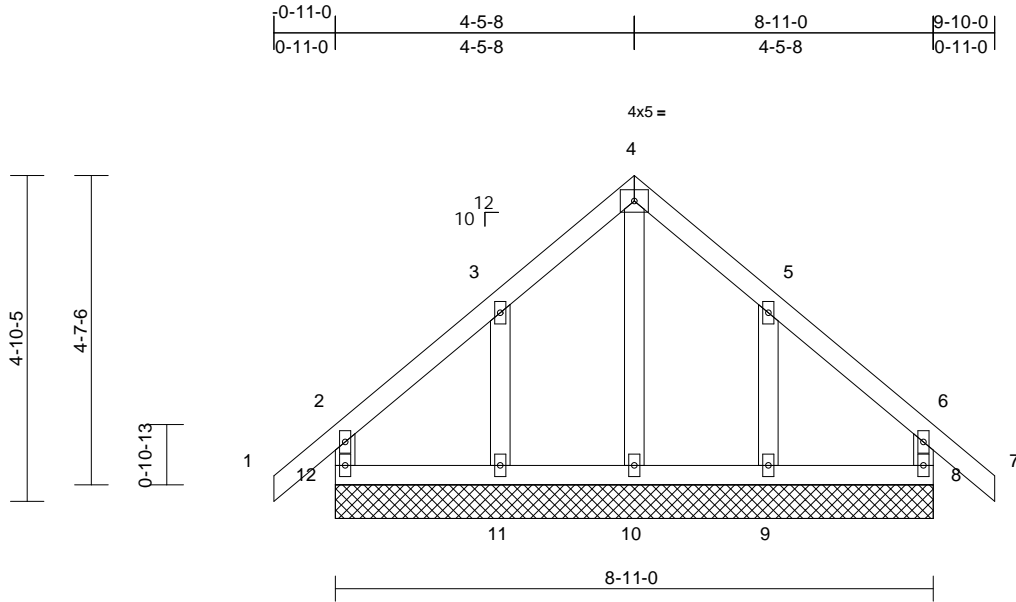
818 Soundside Road  
Edenton, NC 27932

|                 |              |                                      |          |          |   |           |
|-----------------|--------------|--------------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>C01 | Truss Type<br>Common Supported Gable | Qty<br>1 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880752 |
|-----------------|--------------|--------------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:35  
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Page: 1



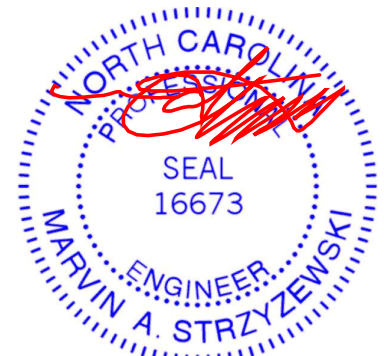
| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.14 | Vert(LL) | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.04 | Vert(CT) | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.06 | Horz(CT) | 0.00  | 8      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-R |      |          |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |     |        |               |          |
|              |           |                 |                 |          |      |          |       |        |     |        | Weight: 49 lb | FT = 20% |

| LUMBER                                     |   |
|--|---|
| TOP CHORD                                  | 2x4 SP No.2   |
| BOT CHORD                                  | 2x4 SP No.2   |
| WEBS                                       | 2x4 SP No.2 *Except* 8-6:2x4 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                                  |   |
| (size)                                     | 8=8-11-0, 9=8-11-0, 10=8-11-0, 11=8-11-0, 12=8-11-0   |
| Max Horiz                                  | 12=-37 (LC 6)   |
| Max Uplift                                 | 8=-176 (LC 6), 9=-193 (LC 6), 10=-84 (LC 7), 11=-184 (LC 6), 12=-183 (LC 6)                         |
| Max Grav                                   | 8=164 (LC 11), 9=289 (LC 11), 10=165 (LC 6), 11=284 (LC 11), 12=168 (LC 11)                         |
| FORCES                                     |   |
| (lb) - Maximum Compression/Maximum Tension |   |
| TOP CHORD                                  | 2-12=-149/187, 1-2=0/56, 2-3=-89/81, 3-4=-184/195, 4-5=-185/195, 5-6=-88/79, 6-7=0/56, 6-8=-147/184 |
| BOT CHORD                                  | 11-12=-22/87, 10-11=-22/87, 9-10=-22/87, 8-9=-22/87   |
| WEBS                                       | 4-10=-160/116, 3-11=-234/178, 5-9=-236/182  |

- NOTES**
- This truss has been checked for uniform roof live load only, except as noted.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Corner (3); cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00

- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 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 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 183 lb uplift at joint 12, 176 lb uplift at joint 8, 84 lb uplift at joint 10, 184 lb uplift at joint 11 and 193 lb uplift at joint 9.

**LOAD CASE(S)** Standard



September 18, 2020

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818 Soundside Road  
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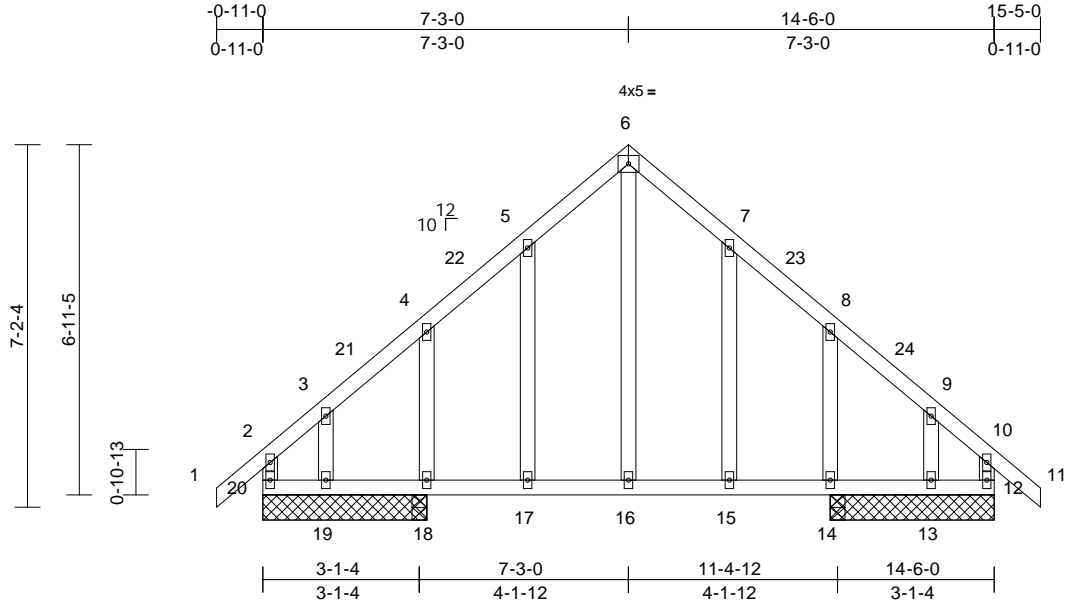
|                 |              |                                       |          |          |   |           |
|-----------------|--------------|---------------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>C02 | Truss Type<br>Common Structural Gable | Qty<br>1 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880753 |
|-----------------|--------------|---------------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:35

Page: 1

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Scale = 1:45.7

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.17 | Vert(LL) | -0.01 | 15-16  | >999 | 240    | MT20          | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.17 | Vert(CT) | -0.02 | 15-16  | >999 | 180    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.09 | Horz(CT) | 0.00  | 12     | n/a  | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-R |      |          |       |        |      |        |               |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        | Weight: 92 lb | FT = 20% |

**LUMBER**  
TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2  
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 10-0-0 oc bracing.

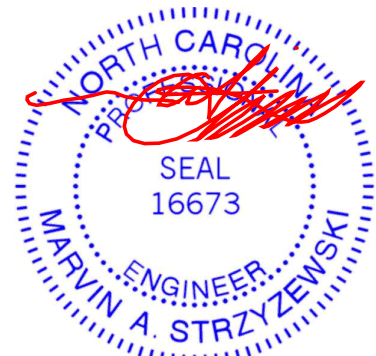
**REACTIONS** (size)  
12=3-3-0, 13=3-3-0, 14=0-3-8, 18=0-3-8, 19=3-3-0, 20=3-3-0  
Max Horiz 20=-29 (LC 6)  
Max Uplift 12=-30 (LC 6), 13=-121 (LC 2), 14=-229 (LC 6), 18=-230 (LC 6), 19=-121 (LC 2), 20=-41 (LC 6)  
Max Grav 12=422 (LC 2), 13=90 (LC 7), 14=443 (LC 11), 18=444 (LC 11), 19=80 (LC 7), 20=422 (LC 2)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/56, 2-3=-305/0, 3-21=-235/11, 4-21=-174/11, 4-22=-329/124, 5-22=-280/124, 5-6=-327/185, 6-7=-327/185, 7-23=-280/123, 8-23=-329/123, 8-24=-174/12, 9-24=-235/12, 9-10=-305/0, 10-11=0/56, 2-20=-331/60, 10-12=-331/55  
BOT CHORD 19-20=0/174, 18-19=0/174, 17-18=0/174, 16-17=0/174, 15-16=0/174, 14-15=0/174, 13-14=0/174, 12-13=0/174  
WEBS 6-16=-114/186, 5-17=-106/97, 4-18=-284/175, 3-19=-107/104, 7-15=-106/97, 8-14=-283/175, 9-13=-112/109

**NOTES**  
1) This truss has been checked for uniform roof live load only, except as noted.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 4-3-0, Exterior (2) 4-3-0 to 10-3-0, Interior (1) 10-3-0 to 12-5-0, Exterior (2) 12-5-0 to 15-5-0; cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 20, 30 lb uplift at joint 12, 121 lb uplift at joint 19, 121 lb uplift at joint 13, 230 lb uplift at joint 18 and 229 lb uplift at joint 14.

**LOAD CASE(S)** Standard



September 18, 2020

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

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

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Edenton, NC 27932





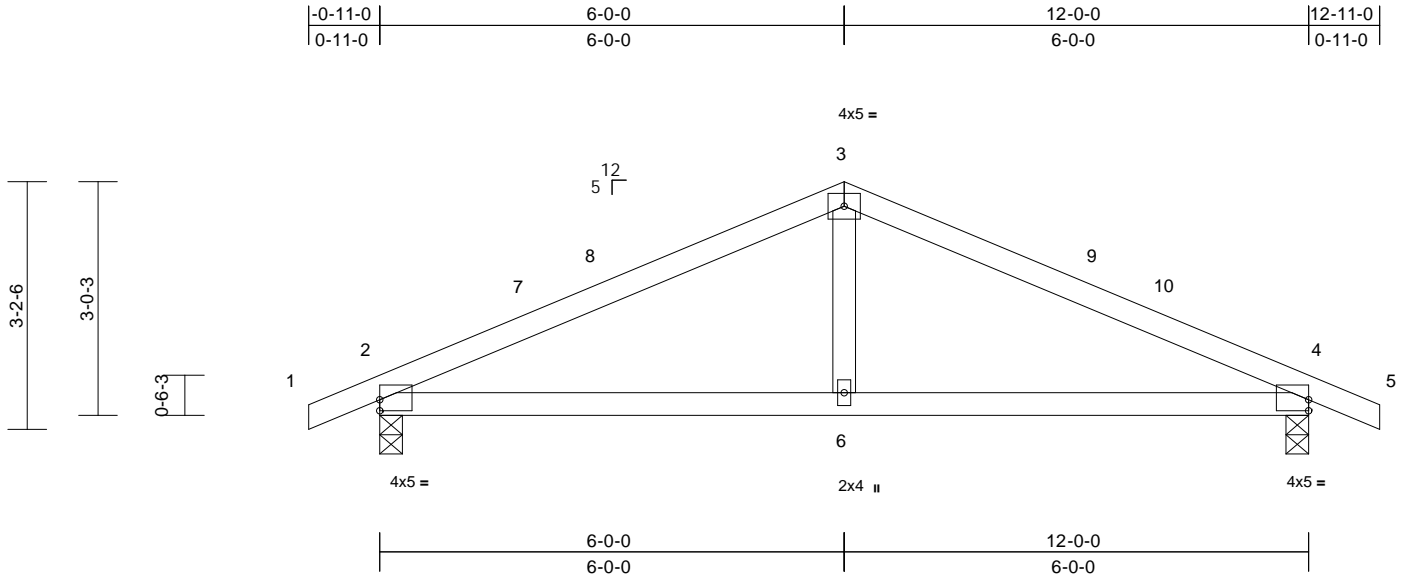
|                 |              |                      |          |          |   |           |
|-----------------|--------------|----------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>CP1 | Truss Type<br>Common | Qty<br>4 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880755 |
|-----------------|--------------|----------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:37

Page: 1

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Scale = 1:29.8

Plate Offsets (X, Y): [2:Edge,0-1-11], [4:Edge,0-1-11]

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d  | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|------|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.49 | Vert(LL) | 0.08  | 2-6    | >999 | 240    | MT20          | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.40 | Vert(CT) | 0.08  | 2-6    | >999 | 180    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.11 | Horz(CT) | 0.01  | 4      | n/a  | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |      |        |               |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |      |        |               |          |
|              |           |                 |                 |          |      |          |       |        |      |        | Weight: 44 lb | FT = 20% |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-2-3 oc bracing.

**REACTIONS**

(size) 2=0-3-8, 4=0-3-8  
 Max Uplift 2=-765 (LC 6), 4=-765 (LC 6)  
 Max Grav 2=532 (LC 2), 4=532 (LC 2)

**FORCES**

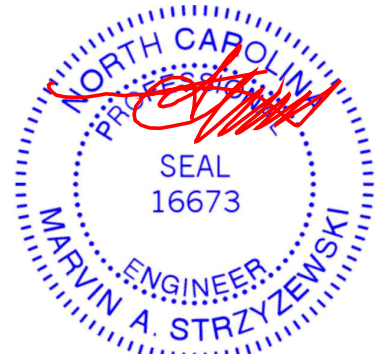
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/14, 2-7=-703/942, 7-8=-632/942, 3-8=-631/942, 3-9=-631/942, 9-10=-632/942, 4-10=-703/942, 4-5=0/14  
 BOT CHORD 2-6=-772/573, 4-6=-772/573  
 WEBS 3-6=-449/283

**NOTES**

- This truss has been checked for uniform roof live load only, except as noted.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 3-0-0, Exterior (2) 3-0-0 to 9-0-0, Interior (1) 9-0-0 to 9-11-0, Exterior (2) 9-11-0 to 12-11-0; cantilever left and right exposed ; end vertical right exposed; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 765 lb uplift at joint 2 and 765 lb uplift at joint 4.

**LOAD CASE(S)** Standard



September 18, 2020

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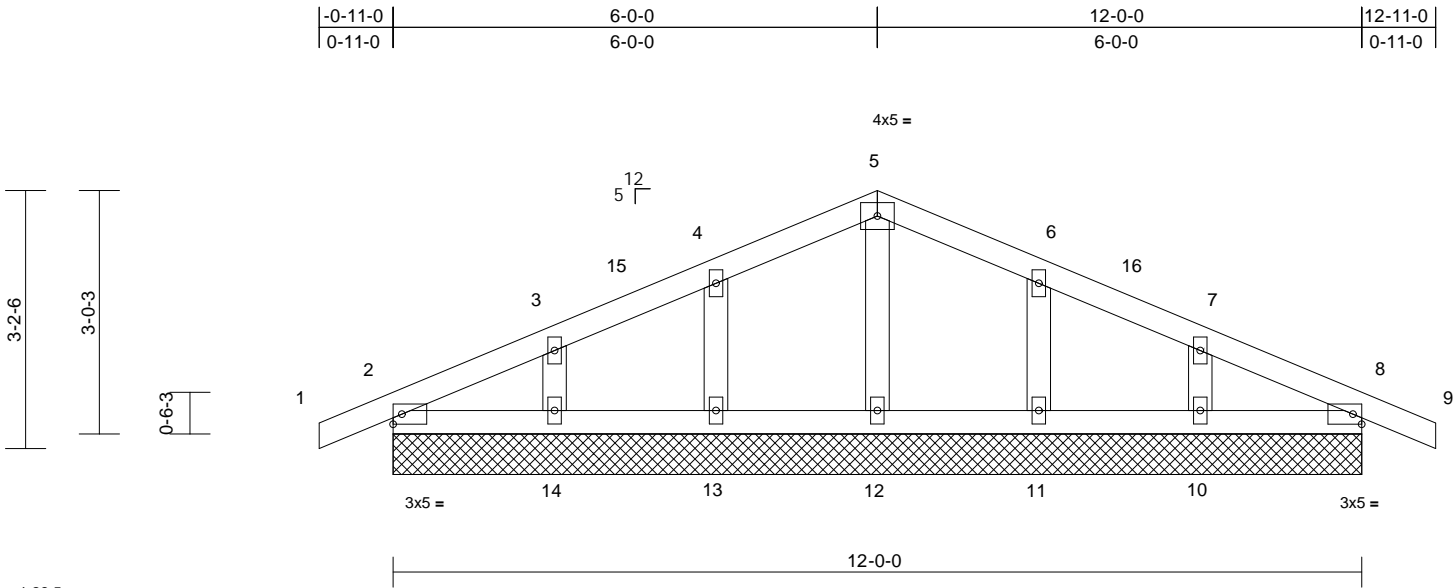
|                 |               |                                      |          |          |   |           |
|-----------------|---------------|--------------------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>CPGE | Truss Type<br>Common Supported Gable | Qty<br>1 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880756 |
|-----------------|---------------|--------------------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

Run: 8.42 S Aug 25 2020 Print: 8.420 S Aug 25 2020 MiTek Industries, Inc. Fri Sep 18 08:28:37

Page: 1

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Scale = 1:28.5

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d | PLATES | GRIP          |          |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.08 | Vert(LL) | n/a   | -      | n/a | 999    | MT20          | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.03 | Vert(CT) | n/a   | -      | n/a | 999    |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.06 | Horz(CT) | 0.00  | 8      | n/a | n/a    |               |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |     |        |               |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |     |        |               |          |
|              |           |                 |                 |          |      |          |       |        |     |        | Weight: 51 lb | FT = 20% |

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=12-0-0, 8=12-0-0, 10=12-0-0, 11=12-0-0, 12=12-0-0, 13=12-0-0, 14=12-0-0  
 Max Uplift 2=-193 (LC 6), 8=-193 (LC 6), 10=-174 (LC 6), 11=-209 (LC 6), 12=-50 (LC 6), 13=-209 (LC 6), 14=-174 (LC 6)  
 Max Grav 2=139 (LC 2), 8=139 (LC 2), 10=185 (LC 11), 11=180 (LC 11), 12=141 (LC 2), 13=180 (LC 11), 14=185 (LC 11)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

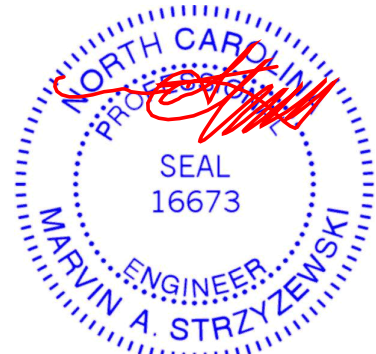
TOP CHORD 1-2=0/14, 2-3=-39/20, 3-15=-39/71, 4-15=-13/71, 4-5=-56/151, 5-6=-56/151, 6-16=-13/71, 7-16=-39/71, 7-8=-39/20, 8-9=0/14  
 BOT CHORD 2-14=-10/72, 13-14=-10/72, 12-13=-10/72, 11-12=-10/72, 10-11=-10/72, 8-10=-10/72  
 WEBS 5-12=-101/50, 4-13=-142/208, 3-14=-139/175, 6-11=-142/208, 7-10=-139/175

**NOTES**

1) This truss has been checked for uniform roof live load only, except as noted.

- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Corner (3) -0-11-0 to 2-0-0, Exterior (2) 2-0-0 to 3-0-0, Corner (3) 3-0-0 to 9-0-0, Exterior (2) 9-0-0 to 9-11-0, Corner (3) 9-11-0 to 12-11-0; cantilever left and right exposed ; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 2, 193 lb uplift at joint 8, 50 lb uplift at joint 12, 209 lb uplift at joint 13, 174 lb uplift at joint 14, 209 lb uplift at joint 11 and 174 lb uplift at joint 10.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

**LOAD CASE(S)** Standard



September 18, 2020

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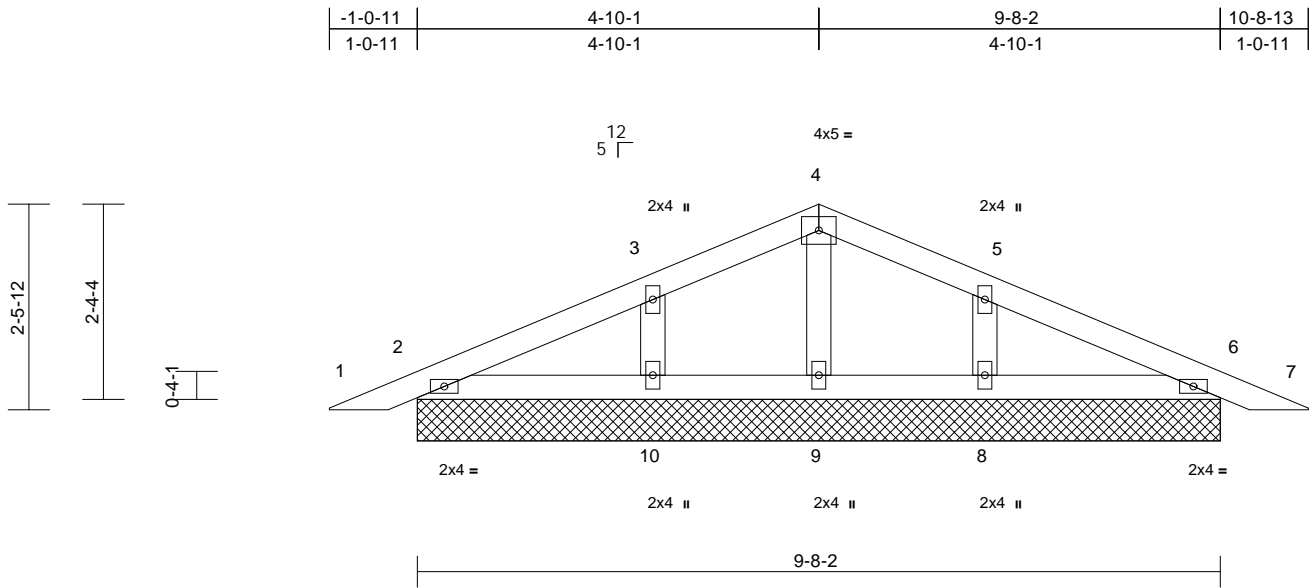
818 Soundside Road  
 Edenton, NC 27932

|                 |               |                         |          |          |   |           |
|-----------------|---------------|-------------------------|----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>PB01 | Truss Type<br>Piggyback | Qty<br>2 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880757 |
|-----------------|---------------|-------------------------|----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1



| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d | PLATES        | GRIP     |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|-----|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.12 | n/a      | -     | n/a    | 999 | MT20          | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.06 | n/a      | -     | n/a    | 999 |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.09 | Horz(CT) | 0.00  | 6      | n/a |               |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |     |               |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |     | Weight: 39 lb | FT = 20% |

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

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

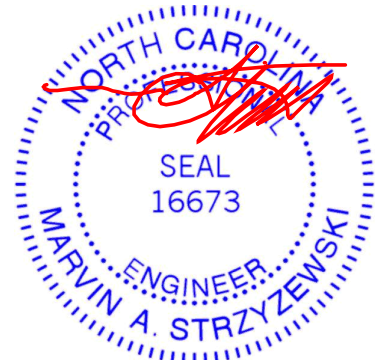
**REACTIONS** (size) 2=9-8-2, 6=9-8-2, 8=9-8-2, 9=9-8-2, 10=9-8-2  
Max Uplift 2=-207 (LC 6), 6=-207 (LC 6), 8=-312 (LC 6), 9=-27 (LC 6), 10=-312 (LC 6)  
Max Grav 2=143 (LC 2), 6=143 (LC 2), 8=266 (LC 11), 9=104 (LC 2), 10=266 (LC 11)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/20, 2-3=-38/29, 3-4=-51/133, 4-5=-51/133, 5-6=-38/29, 6-7=0/20  
BOT CHORD 2-10=-7/69, 9-10=-7/69, 8-9=-7/69, 6-8=-7/69  
WEBS 4-9=-80/36, 3-10=-198/299, 5-8=-198/299

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.25 Plate DOL=1.00); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.00); Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 207 lb uplift at joint 2, 207 lb uplift at joint 6, 27 lb uplift at joint 9, 312 lb uplift at joint 10 and 312 lb uplift at joint 8.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard

- NOTES**
- This truss has been checked for uniform roof live load only, except as noted.
  - Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Corner (3); cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
  - 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.



September 18, 2020

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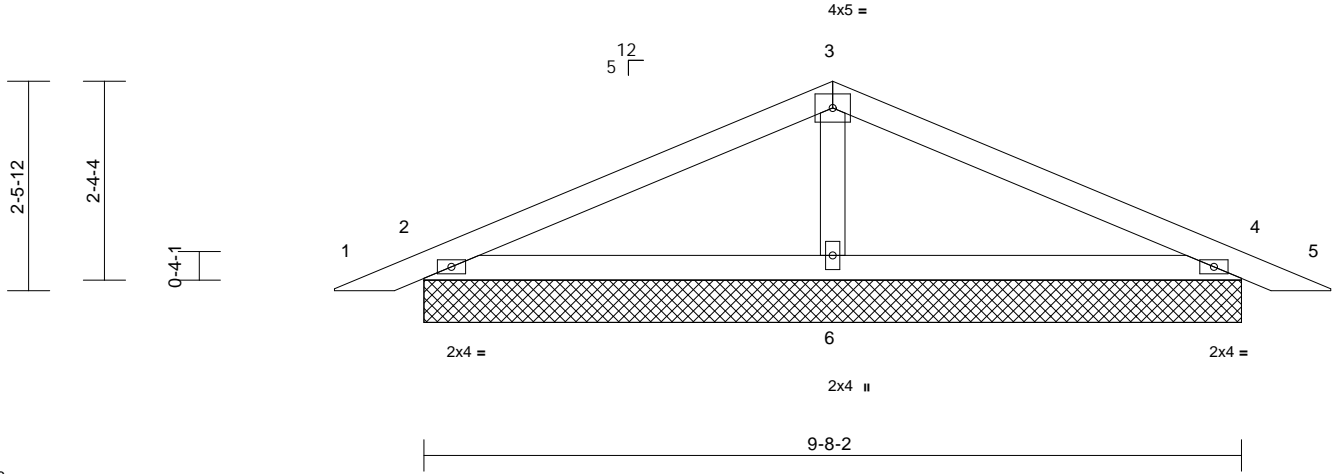
|                 |               |                         |           |          |   |           |
|-----------------|---------------|-------------------------|-----------|----------|---|-----------|
| Job<br>20090080 | Truss<br>PB02 | Truss Type<br>Piggyback | Qty<br>20 | Ply<br>1 | 19 Mitchell Manor - Cedar El. A<br>Job Reference (optional) | E14880758 |
|-----------------|---------------|-------------------------|-----------|----------|---|-----------|

Carter Components (Sanford), Sanford, NC - 27332,

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Page: 1

|         |        |        |         |
|---------|--------|--------|---------|
| -1-0-11 | 4-10-1 | 9-8-2  | 10-8-13 |
| 1-0-11  | 4-10-1 | 4-10-1 | 1-0-11  |



Scale = 1:27.3

| Loading      | (psf)     | Spacing         | 2-0-0           | CSI      | DEFL | in       | (loc) | l/defl | L/d | PLATES        | GRIP     |
|--------------|-----------|-----------------|-----------------|----------|------|----------|-------|--------|-----|---------------|----------|
| TCLL (roof)  | 20.0      | Plate Grip DOL  | 1.00            | TC       | 0.26 | n/a      | -     | n/a    | 999 | MT20          | 244/190  |
| Snow (Pf/Pg) | 15.4/20.0 | Lumber DOL      | 1.25            | BC       | 0.23 | n/a      | -     | n/a    | 999 |               |          |
| TCDL         | 10.0      | Rep Stress Incr | YES             | WB       | 0.08 | Horz(CT) | 0.00  | 4      | n/a |               |          |
| BCLL         | 0.0*      | Code            | IRC2015/TPI2014 | Matrix-S |      |          |       |        |     |               |          |
| BCDL         | 10.0      |                 |                 |          |      |          |       |        |     | Weight: 36 lb | FT = 20% |

**LUMBER**

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

**BRACING**

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

**REACTIONS**

(size) 2=9-8-2, 4=9-8-2, 6=9-8-2  
Max Uplift 2=-210 (LC 6), 4=-210 (LC 6), 6=-289 (LC 6)  
Max Grav 2=216 (LC 2), 4=216 (LC 2), 6=460 (LC 11)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

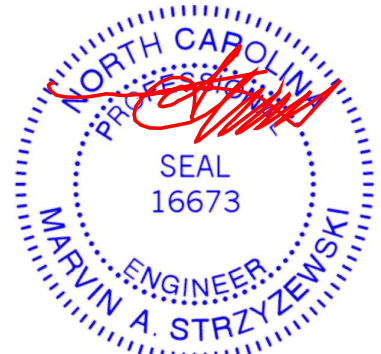
TOP CHORD 1-2=0/20, 2-3=-81/63, 3-4=-81/63, 4-5=0/20  
BOT CHORD 2-6=0/25, 4-6=0/25  
WEBS 3-6=-309/252

**NOTES**

- This truss has been checked for uniform roof live load only, except as noted.
- Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=0.0psf; BCDL=0.0psf; h=0ft; Cat. II; Exp C; Enclosed; C-C Exterior (2); cantilever left and right exposed; end vertical right exposed; Lumber DOL=1.60 plate grip DOL=1.00
- 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.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load); Lumber DOL=1.25 Plate DOL=1.00; Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow); Lumber DOL=1.15 Plate DOL=1.00; Category II; Exp C; Partially Exp.; Ct=1.10
- This truss has been checked for uniform snow load only, except as noted.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 210 lb uplift at joint 2, 210 lb uplift at joint 4 and 289 lb uplift at joint 6.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



September 18, 2020

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

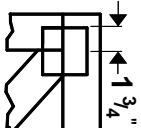


818 Soundside Road  
Edenton, NC 27932

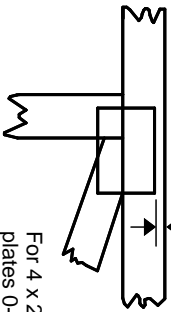


# Symbols

## 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- 1/16" from outside edge of truss.



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

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

## PLATE SIZE

4 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



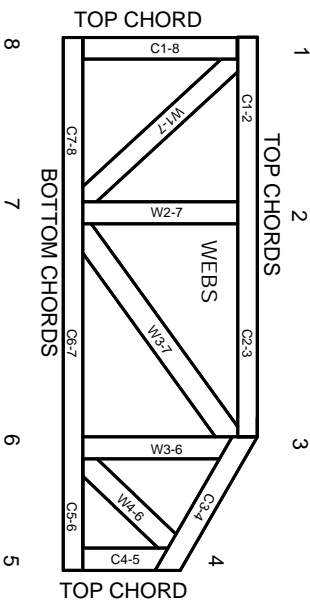
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

## Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-89: Design Standard for Bracing, 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.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020

# 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 T or 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.
21. The design does not take into account any dynamic or other loads other than those expressly stated.