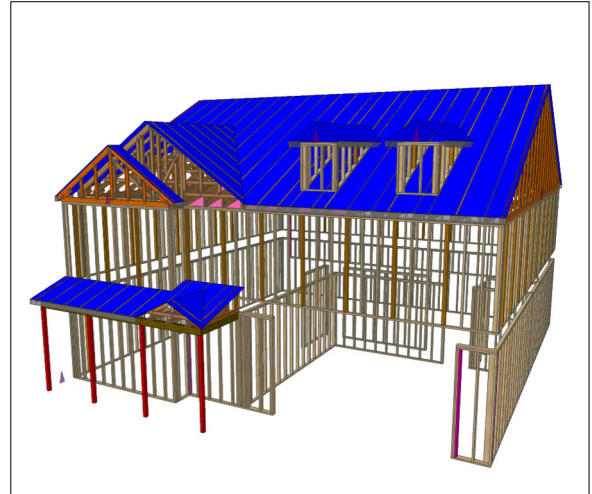




Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450

Builder: DR Horton Inc
Model: 9 Mason Ridge -
Columbia - B



THE PLACEMENT PLAN NOTES:

1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor, Building Designer, Component Designer and Component Manufacturer shall be as set forth in ANSI/TPI 1. Capitalized terms shall be as defined in ANSI/TP 1 unless otherwise indicated.
3. Each Component is designed as an individual component utilizing information provided by others. The Owner/Building Designer is responsible for reviewing all Component Submittal Packages and individual Component Design Drawings for compliance with the Construction Documents and compatibility with the overall Building design.
4. Contractor will not proceed with component installation until the Owner/Building Designer has reviewed the Component Submittal Package. Questions on the suitability of any Component will be resolved by the Building Designer.
5. The Building Designer and Contractor are responsible for all temporary and permanent bracing.
6. The Placement Plan assumes the building is dimensionally correct, structurally sound, and in a suitable condition to support each Component during installation and thereafter, including but not limited to installation of all bearing points. Proper design and construction of all structural components, including foundations, headers, beams, walls and columns are the responsibility of the Owner, Building Designer and Contractor.
7. Do not cut, drill, or modify any Component without first consulting the Component Manufacturer or Building Designer. Damaged Components shall not be installed unless directed by the Building Designer or approved by the Component Manufacturer.
8. Components must be handled and installed following all applicable safety standards and best practices, including but not limited to BCSI, OSHA, TPI and local codes. Failure to properly handle, brace or otherwise install Component can result in serious injury or death.
9. All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the building designer and or contractor.

Approved By: _____

Date: _____

FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. **

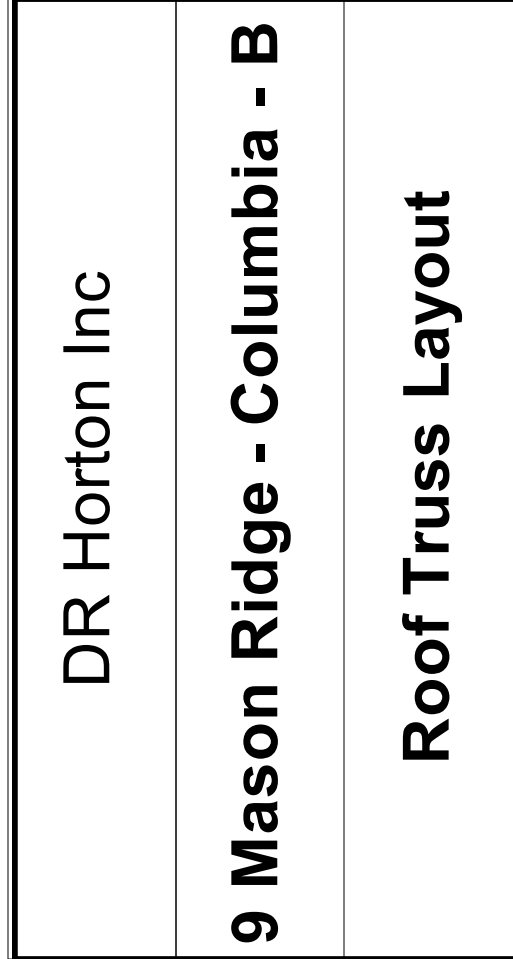
DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT. **

TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE. **

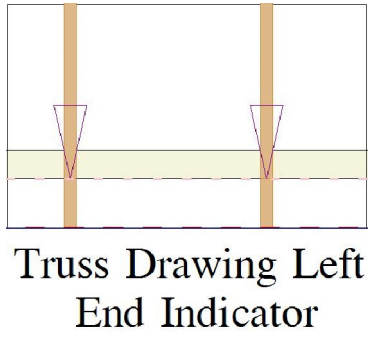
RIGHT END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS

USSES. REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 563 D'Onofrio Drive, Madison, WI 53719



1/1



ROOF PLACEMENT PLAN

RE: 25050082
9 Mason Ridge - Columbia B - Roof

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: DR Horton Inc Project Name: 25050082
Lot/Block: 9 Model: Columbia B
Address: Subdivision: Mason Ridge
City: State:

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.7
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 24 individual, dated Truss Design Drawings and 0 Additional Drawings.

| No. | Seal# | Truss Name | Date | No. | Seal# | Truss Name | Date |
|-----|-----------|------------|-----------|-----|-----------|------------|-----------|
| 1 | I69885140 | A01 | 12/2/2024 | 21 | I69885160 | V05 | 12/2/2024 |
| 2 | I69885141 | A02 | 12/2/2024 | 22 | I69885161 | V06 | 12/2/2024 |
| 3 | I69885142 | A03 | 12/2/2024 | 23 | I69885162 | V07 | 12/2/2024 |
| 4 | I69885143 | A04 | 12/2/2024 | 24 | I69885163 | VL6 | 12/2/2024 |
| 5 | I69885144 | A04A | 12/2/2024 | | | | |
| 6 | I69885145 | A05 | 12/2/2024 | | | | |
| 7 | I69885146 | A06 | 12/2/2024 | | | | |
| 8 | I69885147 | A07 | 12/2/2024 | | | | |
| 9 | I69885148 | A08 | 12/2/2024 | | | | |
| 10 | I69885149 | A09 | 12/2/2024 | | | | |
| 11 | I69885150 | B01 | 12/2/2024 | | | | |
| 12 | I69885151 | B02 | 12/2/2024 | | | | |
| 13 | I69885152 | C01 | 12/2/2024 | | | | |
| 14 | I69885153 | C02 | 12/2/2024 | | | | |
| 15 | I69885154 | C03 | 12/2/2024 | | | | |
| 16 | I69885155 | C04 | 12/2/2024 | | | | |
| 17 | I69885156 | V01 | 12/2/2024 | | | | |
| 18 | I69885157 | V02 | 12/2/2024 | | | | |
| 19 | I69885158 | V03 | 12/2/2024 | | | | |
| 20 | I69885159 | V04 | 12/2/2024 | | | | |

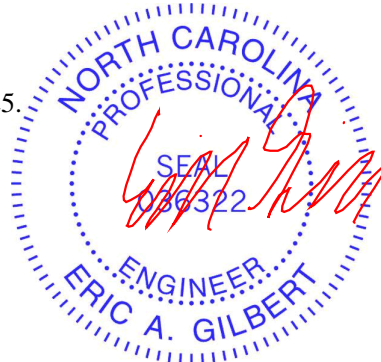
The truss drawing(s) referenced above have been prepared by
Truss Engineering Co. under my direct supervision
based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2025.

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 02, 2024

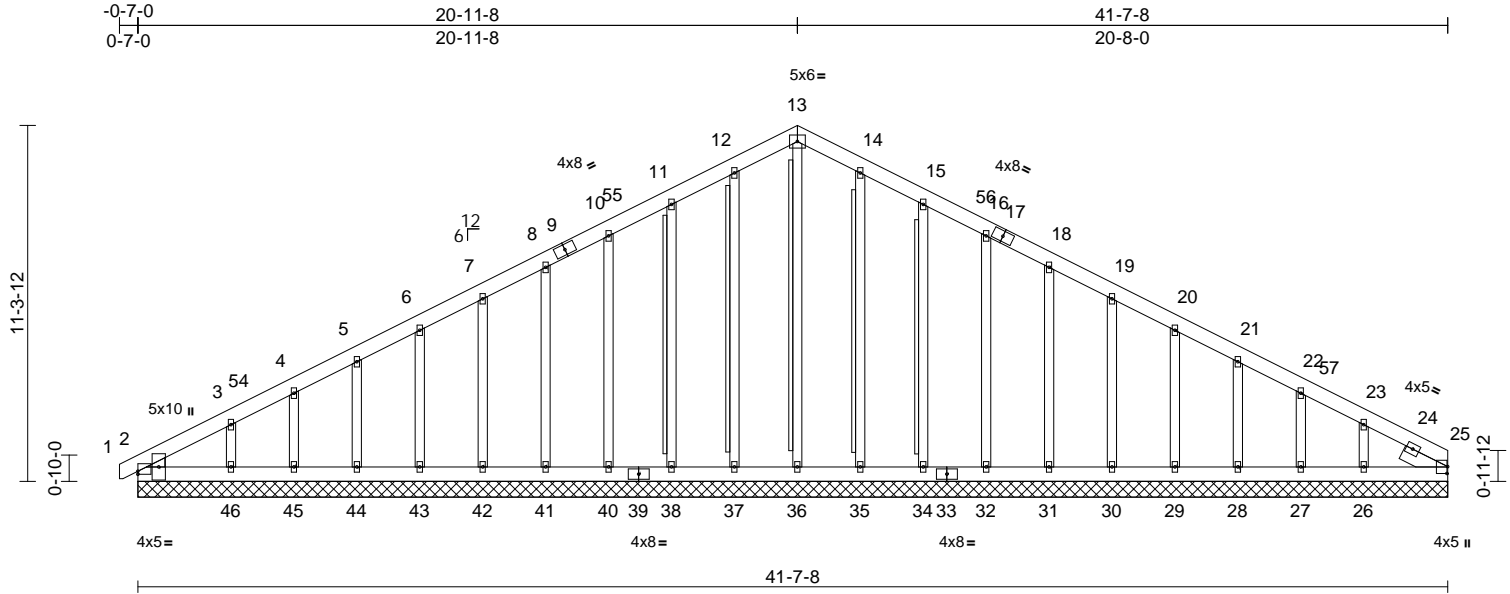
| | | | | | | |
|----------|-------|------------------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885140 |
| 25050082 | A01 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:28

Page: 1

ID:XY_hTjn77cWd93YGk4BGwizz1Ey-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRcDoi7J4zJC7f

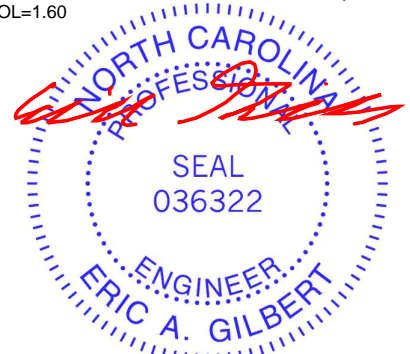


Scale = 1:73.2

| | | | | | | | | | | | | |
|---|-------|-----------------|-----------------|------------|------|-------------|------|-------|--------|-----|----------------|-------------|
| Plate Offsets (X, Y): [2:Edge,0-1-3], [25:0-2-10,0-0-5] | | | | | | | | | | | | |
| Loading | (psf) | Spacing | 1-11-4 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.16 | Horz(CT) | 0.01 | 25 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 373 lb | FT = 20% |

| | | | | | |
|------------------|--|---------------|--|-------------|--|
| LUMBER | | Max Grav | 2=164 (LC 27), 25=120 (LC 28), 26=210 (LC 37), 27=138 (LC 22), 28=159 (LC 37), 29=154 (LC 22), 30=155 (LC 37), 31=155 (LC 1), 32=180 (LC 22), 34=229 (LC 22), 35=230 (LC 22), 36=178 (LC 28), 37=228 (LC 21), 38=226 (LC 21), 40=176 (LC 21), 41=155 (LC 1), 42=155 (LC 36), 43=154 (LC 21), 44=160 (LC 36), 45=133 (LC 1), 46=225 (LC 36), 47=164 (LC 27), 50=120 (LC 28) | WEBS | 13-36=166/36, 12-37=189/46, 11-38=187/86, 10-40=137/76, 8-41=122/74, 7-42=122/75, 6-43=122/75, 5-44=124/76, 4-45=112/66, 3-46=159/144, 14-35=191/38, 15-34=191/86, 16-32=142/76, 18-31=122/74, 19-30=122/75, 20-29=122/75, 21-28=123/74, 22-27=116/78, 23-26=146/148 |
| TOP CHORD | 2x6 SP No.2 | | | | |
| BOT CHORD | 2x6 SP No.2 | | | | |
| OTHERS | 2x4 SP No.3 *Except* | | | | |
| | 36-13,0-0,0-0,0-0,0-0,0-0:2x4 SP No.2 | | | | |
| WEDGE | Left: 2x4 SP No.3 | | | | |
| SLIDER | Right 2x6 SP No.2 -- 1-6-0 | | | | |
| 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 | T-Brace: 2x4 SP No.2 - 13-36, 12-37, 11-38, 14-35, 15-34 | FORCES | (lb) - Maximum Compression/Maximum Tension | | |
| | 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. | TOP CHORD | 1-2=0/14, 2-3=210/74, 3-4=158/76, 4-5=124/89, 5-6=101/107, 6-7=80/130, 7-8=73/152, 8-10=84/176, 10-11=95/221, 11-12=112/268, 12-13=122/297, 13-14=122/297, 14-15=112/268, 15-16=95/221, 16-18=84/176, 18-19=73/133, 19-20=61/89, 20-21=52/45, 21-22=72/22, 22-23=94/22, 23-25=145/48 | | |
| | Brace must cover 90% of web length. | BOT CHORD | 2-46=64/150, 45-46=46/150, 44-45=46/150, 43-44=46/150, 42-43=46/150, 41-42=46/150, 40-41=46/150, 38-40=46/150, 37-38=46/150, 36-37=46/150, 35-36=46/150, 34-35=46/150, 32-34=46/150, 31-32=46/150, 30-31=46/150, 29-30=46/150, 28-29=46/150, 27-28=46/150, 26-27=46/150, 25-26=46/150 | | |
| REACTIONS | (size) | | | | |
| | 2=41-7-8, 25=41-7-8, 26=41-7-8, 27=41-7-8, 28=41-7-8, 29=41-7-8, 30=41-7-8, 31=41-7-8, 32=41-7-8, 34=41-7-8, 35=41-7-8, 36=41-7-8, 37=41-7-8, 38=41-7-8, 40=41-7-8, 41=41-7-8, 42=41-7-8, 43=41-7-8, 44=41-7-8, 45=41-7-8, 46=41-7-8, 47=41-7-8, 50=41-7-8 | | | | |
| | Max Horiz 2=172 (LC 14), 47=172 (LC 14) | | | | |
| | Max Uplift 2=-11 (LC 15), 26=-103 (LC 15), 27=-24 (LC 15), 28=-46 (LC 15), 29=-41 (LC 15), 30=-43 (LC 15), 31=-42 (LC 15), 32=-43 (LC 15), 34=-52 (LC 15), 35=-14 (LC 15), 37=-22 (LC 14), 38=-49 (LC 14), 40=-43 (LC 14), 41=-42 (LC 14), 42=-43 (LC 14), 43=-41 (LC 14), 44=-47 (LC 14), 45=-22 (LC 14), 46=-106 (LC 14), 47=-11 (LC 15) | | | | |

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-6-6 to 3-7-10, Exterior(2N) 3-7-10 to 16-9-9, Corner(3R) 16-9-9 to 24-11-8, Exterior (2N) 24-11-8 to 37-5-9, Corner(3E) 37-5-9 to 41-7-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60



December 2,2024

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

| | | | | | |
|----------|-------|------------------------|-----|-----|-----------------------------------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof |
| 25050082 | A01 | Common Supported Gable | 1 | 1 | I69885140 |
| | | | | | Job Reference (optional) |

- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 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.
- 12) N/A

- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 25.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

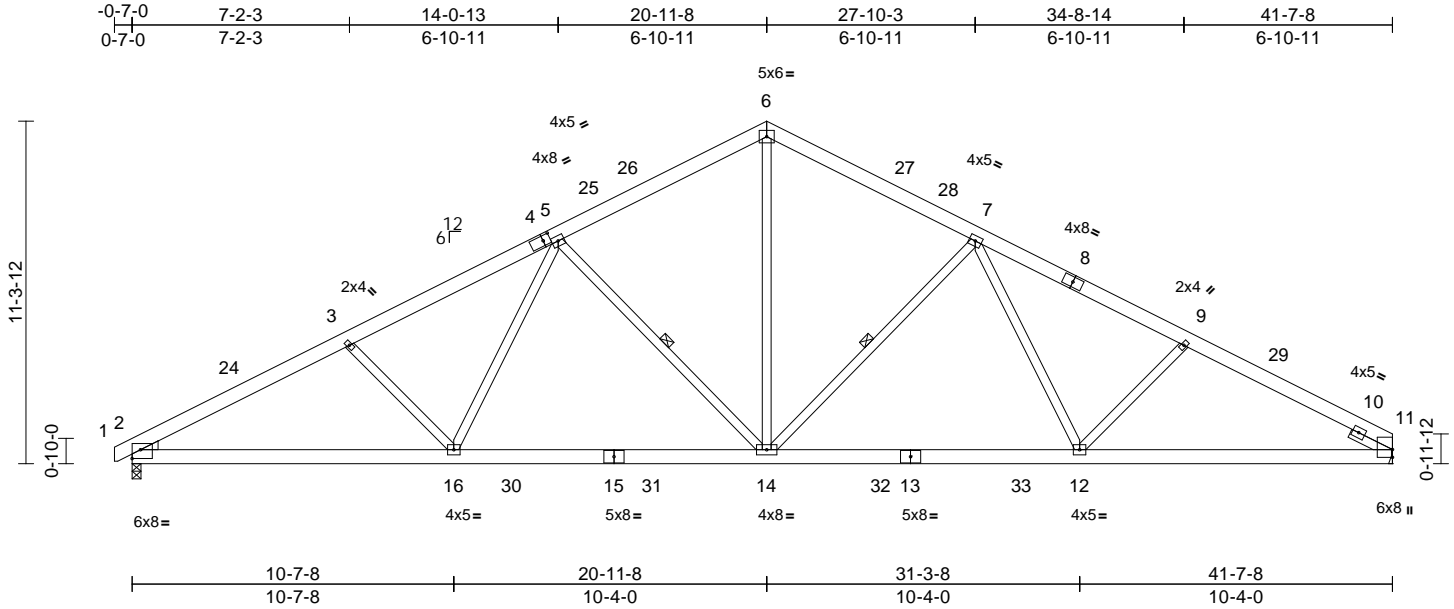
LOAD CASE(S) Standard

| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885141 |
| 25050082 | A02 | Common | 6 | 1 | Job Reference (optional) | |

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

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Page: 1



Scale = 1:76.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.58 | Vert(LL) | -0.23 | 12-14 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.87 | Vert(CT) | -0.39 | 12-14 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.45 | Horz(CT) | 0.11 | 11 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 293 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 14-6:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
SLIDER Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-14, 5-14

REACTIONS

(size) 2=0-3-8, 11= Mechanical
Max Horiz 2=177 (LC 14)
Max Uplift 2=-171 (LC 14), 11=-158 (LC 15)
Max Grav 2=1865 (LC 3), 11=1839 (LC 3)

FORCES

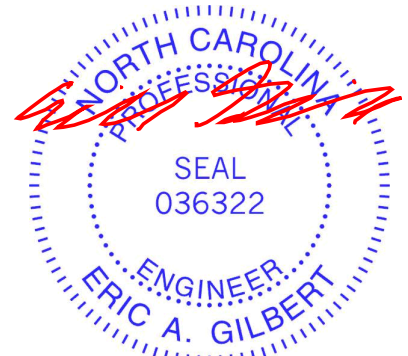
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-3594/341, 3-5=-3363/340, 5-6=-2435/350, 6-7=-2436/350, 7-9=-3266/336, 9-11=-3480/337
BOT CHORD 2-16=-359/3118, 14-16=-208/2613, 12-14=-141/2585, 11-12=-220/2997
WEBS 6-14=-125/1727, 7-14=-843/256, 7-12=-20/573, 9-12=-276/197, 5-14=-884/259, 5-16=-27/664, 3-16=-332/204

NOTES

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-6-6 to 3-7-10, Interior (1) 3-7-10 to 16-9-9, Exterior(2R) 16-9-9 to 25-1-7, Interior (1) 25-1-7 to 37-5-9, Exterior(2E) 37-5-9 to 41-7-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 158 lb uplift at joint 11.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate

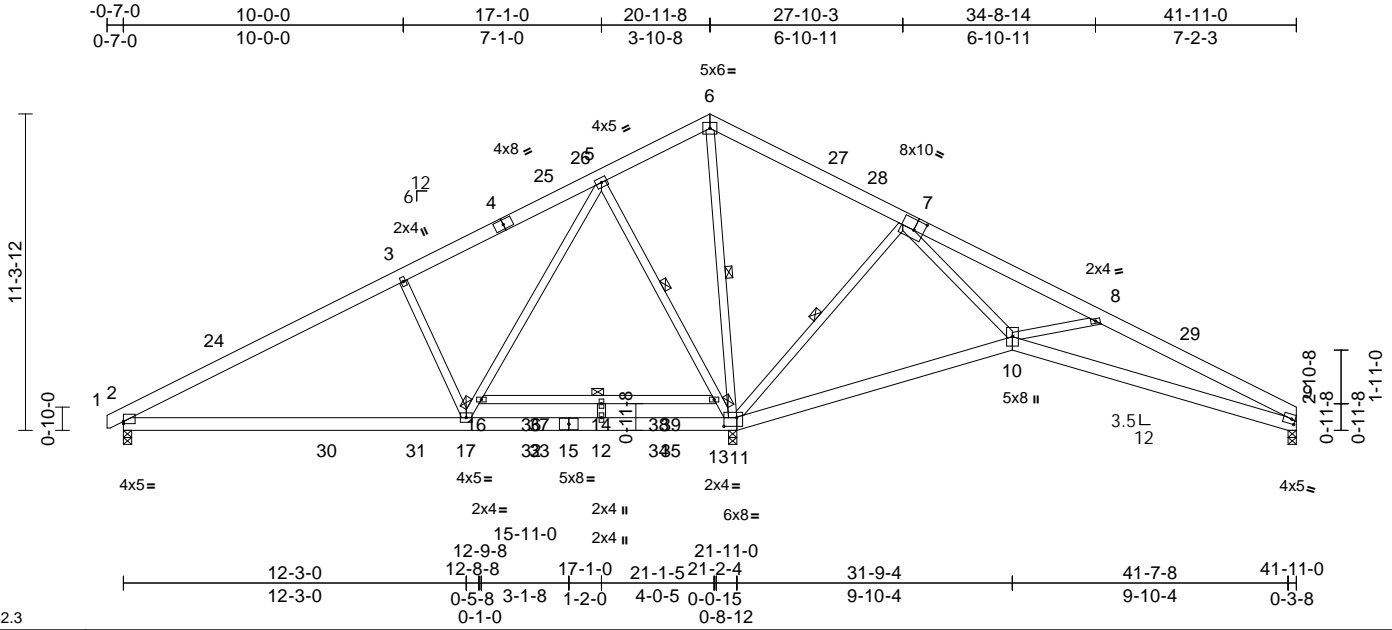
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|----------|-------|--------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885142 |
| 25050082 | A03 | Roof Special | 1 | 1 | Job Reference (optional) | |

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

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Page: 1



Scale = 1:82.3

Plate Offsets (X, Y): [2:Edge,0-0-15], [7:0-4-4,0-4-8], [9:0-1-9,0-2-0], [11:0-5-8,0-3-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.51 | Vert(LL) | -0.13 | 14-16 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -0.27 | 14-16 | >989 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.71 | Horz(CT) | 0.03 | 9 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 304 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 15-11:2x6 SP 2400F
2.0E, 16-13:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 11-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 2-17,9-10.
WEBS 1 Row at midpt 5-13, 6-11, 7-11

REACTIONS

(size) 2=0-3-8, 9=0-3-8, 11=0-3-8
Max Horiz 2=174 (LC 18)
Max Uplift 2=-59 (LC 14), 9=-91 (LC 15)
Max Grav 2=897 (LC 38), 9=497 (LC 6), 11=3001 (LC 3)

FORCES

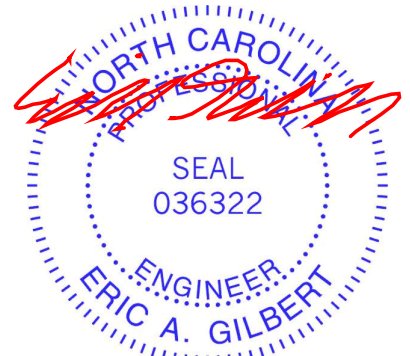
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-1134/40, 3-5=-939/92, 5-6=0/754, 6-8=-410/892, 8-9=-932/253
BOT CHORD 2-17=-256/929, 12-17=-222/332, 11-12=-222/332, 10-11=-363/125, 9-10=-165/856, 14-16=-243/0, 13-14=-243/0
WEBS 3-17=-559/290, 16-17=-7/1355, 5-16=0/1546, 5-13=-1136/134, 11-13=-1340/97, 6-11=-1033/40, 7-11=-802/234, 7-10=0/796, 8-10=-596/275, 12-14=-215/0

NOTES

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-6-6 to 3-7-15, Interior (1) 3-7-15 to 16-9-3, Exterior(2R) 16-9-3 to 25-1-13, Interior (1) 25-1-13 to 37-8-11, Exterior(2E) 37-8-11 to 41-11-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 17-1-0 from left end, supported at two points, 5-0-0 apart.
- 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) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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818 Soundside Road
Edenton, NC 27932

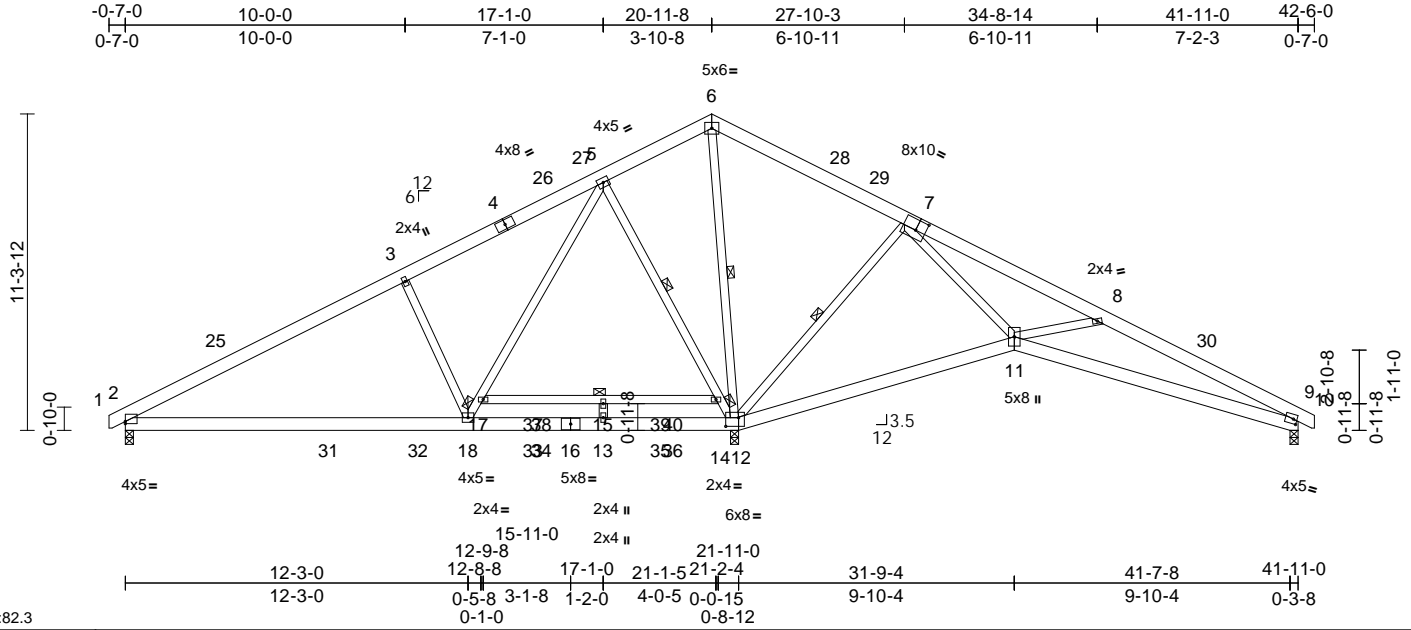
| | | | | | | |
|----------|-------|--------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885143 |
| 25050082 | A04 | Roof Special | 2 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:30

Page: 1

ID: _Ns3qehLDryLE9sL6mxKlzz0xj-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrcDoi7J4zJC?i



Scale = 1:82.3

Plate Offsets (X, Y): [2:Edge,0-0-15], [7:0-4-4,0-4-8], [9:0-1-9,0-2-0], [12:0-5-8,0-3-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.51 | Vert(LL) | -0.13 | 15-17 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -0.27 | 15-17 | >989 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.71 | Horz(CT) | 0.03 | 9 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 306 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x6 SP No.2 *Except* 16-12:2x6 SP 2400F
 2.0E, 0-0,17-14:2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 12-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or
 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc
 bracing, Except:
 10-0-0 oc bracing: 2-18,9-11.
 WEBS 1 Row at midpt 5-14, 6-12, 7-12

REACTIONS

(size) 2=0-3-8, 9=0-3-8, 12=0-3-8
 Max Horiz 2=170 (LC 18)
 Max Uplift 2=-60 (LC 14), 9=-104 (LC 15)
 Max Grav 2=897 (LC 38), 9=523 (LC 6),
 12=3001 (LC 3)

FORCES

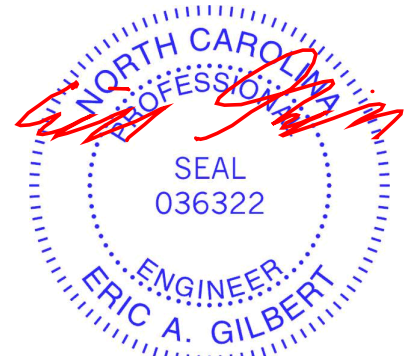
(lb) - Maximum Compression/Maximum
 Tension
 TOP CHORD 1-2=0/14, 2-3=-1134/42, 3-5=-939/94,
 5-6=0/755, 6-8=-407/893, 8-9=-929/254,
 9-10=0/14
 BOT CHORD 2-18=-253/929, 13-18=-223/336,
 12-13=-223/336, 11-12=-363/129,
 9-11=-158/855, 15-17=-243/0, 14-15=-243/0
 WEBS 5-14=-1136/133, 12-14=-1340/97,
 6-12=-1034/31, 7-12=-801/233, 7-11=0/794,
 8-11=-595/275, 17-18=-7/1355, 5-17=0/1546,
 3-18=-559/290, 13-15=-215/0

NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
 II; Exp B; Enclosed; MWFRS (envelope) exterior zone
 and C-C Exterior(2E) -0-6-6 to 3-7-15, Interior (1) 3-7-15
 to 16-9-3, Exterior(2R) 16-9-3 to 25-1-13, Interior (1)
 25-1-13 to 38-3-1, Exterior(2E) 38-3-1 to 42-5-6 zone;
 cantilever left and right exposed ; end vertical left and
 right exposed;C-C for members and forces & MWFRS
 for reactions shown; Lumber DOL=1.60 plate grip
 DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate
 DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;
 Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this
 design.
- 5) This truss has been designed for greater of min roof live
 load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on
 overhangs non-concurrent with other live loads.
- 6) 200.0lb AC unit load placed on the bottom chord, 17-1-0
 from left end, supported at two points, 5-0-0 apart.
- 7) This truss has been designed for a 10.0 psf bottom
 chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf
 on the bottom chord in all areas where a rectangle
 3-06-00 tall by 2-00-00 wide will fit between the bottom
 chord and any other members, with BCDL = 10.0psf.
- 9) Bearing at joint(s) 9 considers parallel to grain value
 using ANSI/TPI 1 angle to grain formula. Building
 designer should verify capacity of bearing surface.
- 10) One H2.5A Simpson Strong-Tie connectors
 recommended to connect truss to bearing walls due to
 UPLIFT at jt(s) 2 and 9. This connection is for uplift only
 and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018
 International Residential Code sections R502.11.1 and
 R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|----------|-------|--------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885144 |
| 25050082 | A04A | Roof Special | 3 | 1 | Job Reference (optional) | |

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

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Page: 1

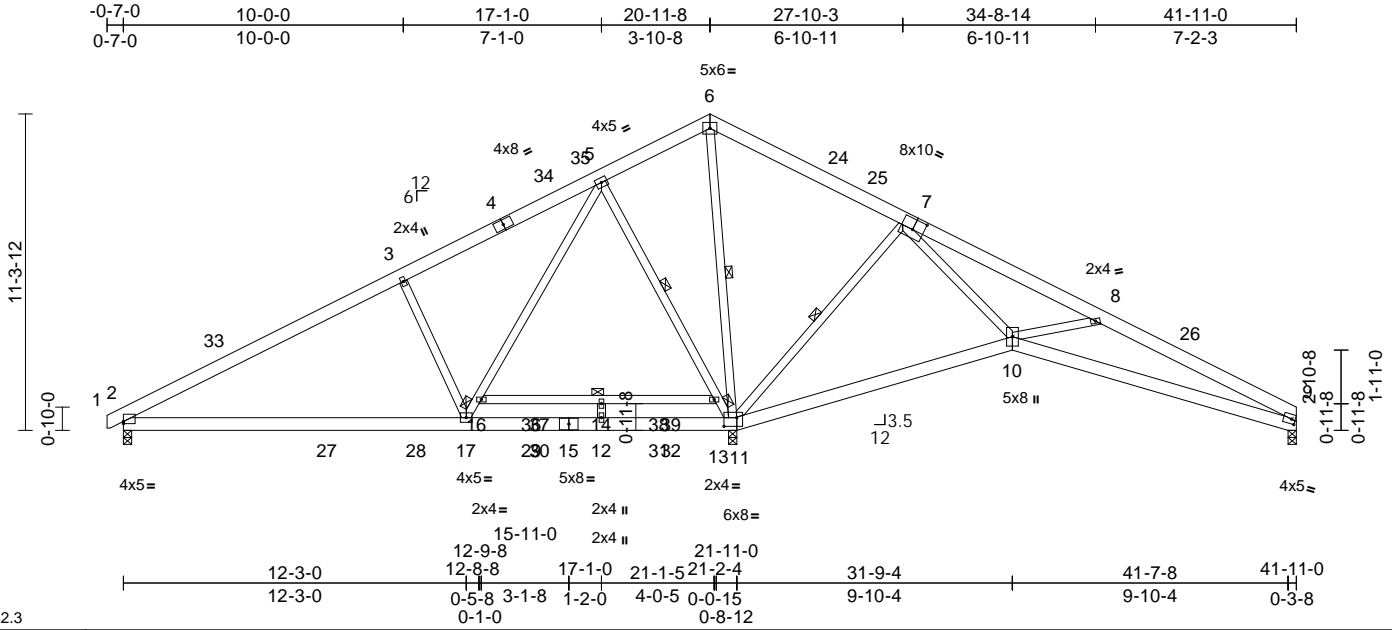


Plate Offsets (X, Y): [2:Edge,0-0-15], [7:0-4-12,0-4-8], [9:0-1-9,0-2-0], [11:0-5-8,0-3-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.51 | Vert(LL) | -0.13 | 14-16 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -0.27 | 14-16 | >989 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.71 | Horz(CT) | 0.03 | 9 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 304 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 15-11:2x6 SP 2400F
2.0E, 16-13:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 11-6:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 2-17,9-10.
WEBS 1 Row at midpt 5-13, 6-11, 7-11

REACTIONS

(size) 2=0-3-8, 9=0-3-8, 11=0-3-8
Max Horiz 2=174 (LC 14)
Max Uplift 2=-59 (LC 14), 9=-91 (LC 15)
Max Grav 2=897 (LC 38), 9=496 (LC 6), 11=3002 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 6-8=-408/892, 8-9=-932/253, 1-2=0/14, 2-3=-1134/40, 3-5=-939/92, 5-6=0/755
BOT CHORD 2-17=-256/929, 12-17=-223/333, 11-12=-223/333, 10-11=-369/126, 9-10=-165/856, 14-16=-243/0, 13-14=-243/0
WEBS 3-17=-559/290, 16-17=-7/1355, 5-16=0/1546, 5-13=-1136/134, 11-13=-1340/97, 6-11=-1032/39, 7-11=-799/234, 7-10=0/796, 8-10=-599/276, 12-14=-215/0

NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-6-6 to 3-7-15, Interior (1) 3-7-15 to 16-9-3, Exterior(2R) 16-9-3 to 25-1-13, Interior (1) 25-1-13 to 37-8-11, Exterior(2E) 37-8-11 to 41-11-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) 200.0lb AC unit load placed on the bottom chord, 17-1-0 from left end, supported at two points, 5-0-0 apart.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 9) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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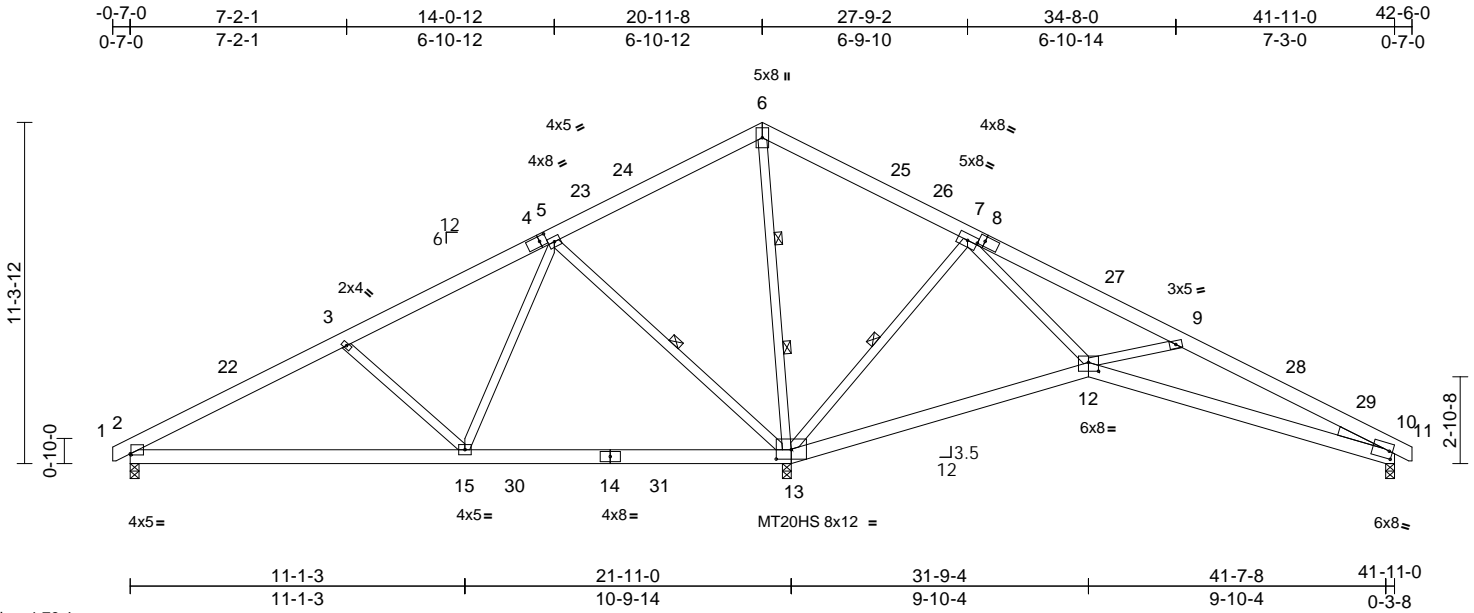
| | | | | | | |
|----------|-------|--------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | I69885145 |
| 25050082 | A05 | Roof Special | 3 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:30

Page: 1

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Scale = 1:76.4

Plate Offsets (X, Y): [2:0-0-4,0-0-7], [4:0-2-12,0-2-0], [8:0-2-7,0-2-0], [10:0-1-4,0-3-0], [12:0-4-0,0-3-8], [13:0-6-0,0-3-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.77 | Vert(LL) | -0.12 | 13-15 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.86 | Vert(CT) | -0.23 | 12-21 | >999 | 180 | MT20HS | 187/143 |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.80 | Horz(CT) | 0.06 | 10 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 293 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 1-4,8-11:2x6 SP 2400F 2.0E
BOT CHORD 2x6 SP No.2 *Except* 14-13:2x6 SP 2400F 2.0E
WEBS 2x4 SP No.3 *Except* 13-5,13-6:2x4 SP No.2
WEDGE Right: 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except: 10-0-0 oc bracing: 10-12.
WEBS 1 Row at midpt 5-13, 7-13
WEBS 2 Rows at 1/3 pts 6-13

REACTIONS

(size) 2=0-3-8, 10=0-3-8, 13=0-3-8
Max Horiz 2=170 (LC 18)
Max Uplift 2=-326 (LC 35), 10=-129 (LC 15), 13=-305 (LC 15)
Max Grav 2=332 (LC 36), 10=1573 (LC 22), 13=3944 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/14, 2-3=-205/1006, 3-5=-123/1147, 5-6=-67/1778, 6-7=-86/1999, 7-9=-828/0, 9-10=-3492/341, 10-11=0/14
BOT CHORD 2-15=-841/309, 13-15=-1169/346, 12-13=-1035/254, 10-12=-251/2933
WEBS 3-15=-477/223, 5-15=-16/824, 5-13=-992/256, 6-13=-1988/220, 7-13=-1303/255, 7-12=-17/1963, 9-12=-2516/453

NOTES

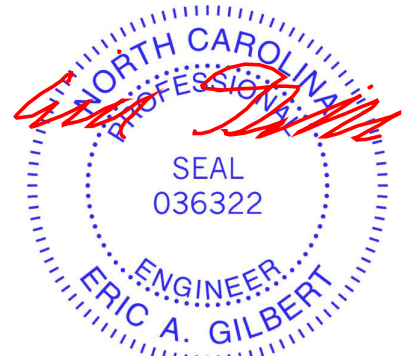
1) Unbalanced roof live loads have been considered for this design.

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-6-6 to 3-7-15, Interior (1) 3-7-15 to 16-9-3, Exterior(2R) 16-9-3 to 25-1-13, Interior (1) 25-1-13 to 38-3-1, Exterior(2E) 38-3-1 to 42-5-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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) 10 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 13, and 10. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

12) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-60, 6-27=-60, 11-29=-60, 13-16=-20, 12-13=-20, 12-19=-20
Trapezoidal Loads (lb/ft)
Vert: 27=-300-to-9=-314, 9=-314-to-28=-330, 28=-330-to-29=-342



December 2,2024

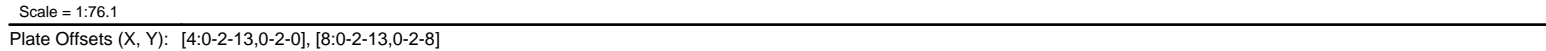
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:31 Page: 1
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| | | |
|--|---|---|
| LUMBER | | Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-6-6 to 3-7-15, Interior (1) 3-7-15 to 16-9-3, Exterior(2R) 16-9-3 to 25-1-13, Interior (1) 25-1-13 to 38-3-1, Exterior(2E) 38-3-1 to 42-5-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60 |
| TOP CHORD | 2x6 SP No.2 | |
| BOT CHORD | 2x6 SP No.2 | |
| WEBS | 2x4 SP No.3 *Except* 14-5,14-6:2x4 SP No.2 | |
| 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, Except: 6-0-0 oc bracing: 12-14. | |
| WEBS | 1 Row at midpt 5-14, 6-14, 7-14 | |
| REACTIONS | (size) 2=0-3-8, 10=0-3-8, 14=0-3-8 | 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10 |
| | Max Horiz 2=170 (LC 18) | 4) Unbalanced snow loads have been considered for this design. |
| | Max Uplift 2=85 (LC 14), 10=104 (LC 15), 14=180 (LC 14) | 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads. |
| | Max Grav 2=789 (LC 5), 10=694 (LC 6), 14=2378 (LC 3) | 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. |
| FORCES | | 7) * 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. |
| (lb) - Maximum Compression/Maximum Tension | | 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at it(s) 2, 10, and 14. This connection is for uplift only and does not consider lateral forces. |
| TOP CHORD | 1-2=0/14, 2-3=-1037/133, 3-5=-794/109, 5-6=-3/538, 6-7=0/587, 7-9=-580/154, 9-10=-849/177, 10-11=0/14 | 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1. |
| BOT CHORD | 2-16=-240/867, 14-16=-38/348, 12-14=-99/195, 10-12=-102/687 | |
| WEBS | 5-16=-29/774, 3-16=-402/218, 5-14=-930/262, 6-14=-781/101, 7-14=-862/263, 7-12=-43/724, 9-12=-413/215 | |
| NOTES | | |
| 1) Unbalanced roof live loads have been considered for this design. | | |
| LOAD CASE(S) | | Standard |



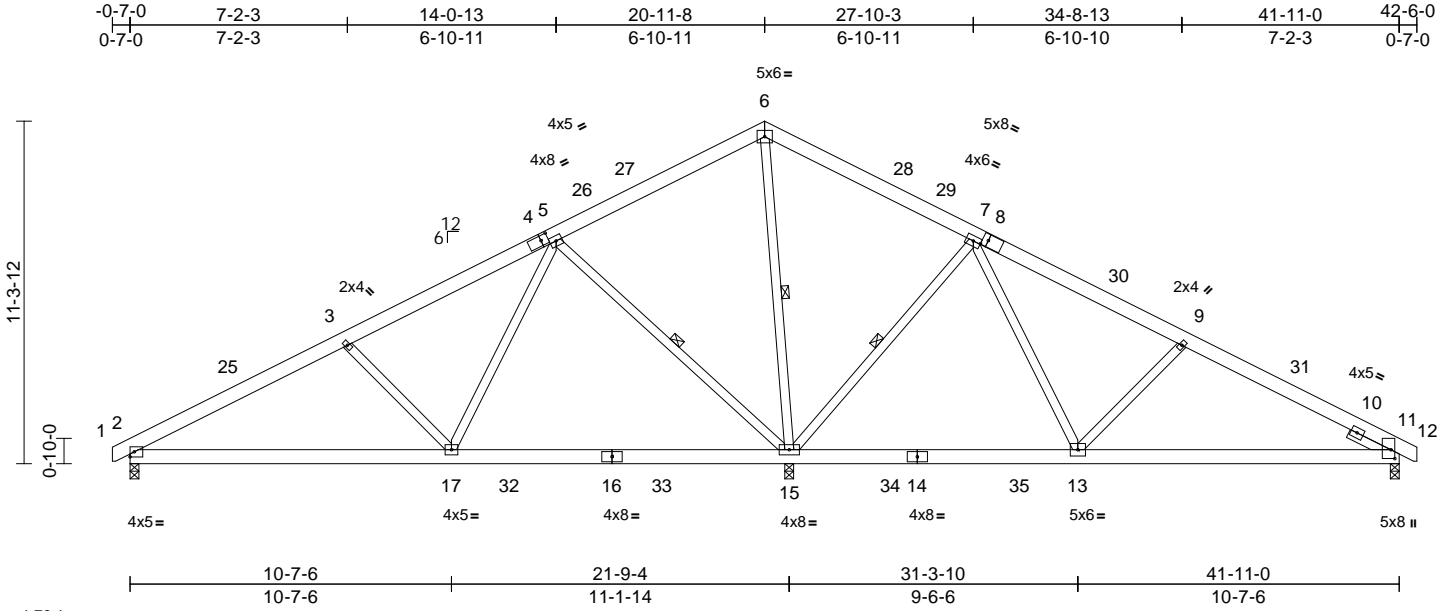
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|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885147 |
| 25050082 | A07 | Common | 3 | 1 | Job Reference (optional) | |

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

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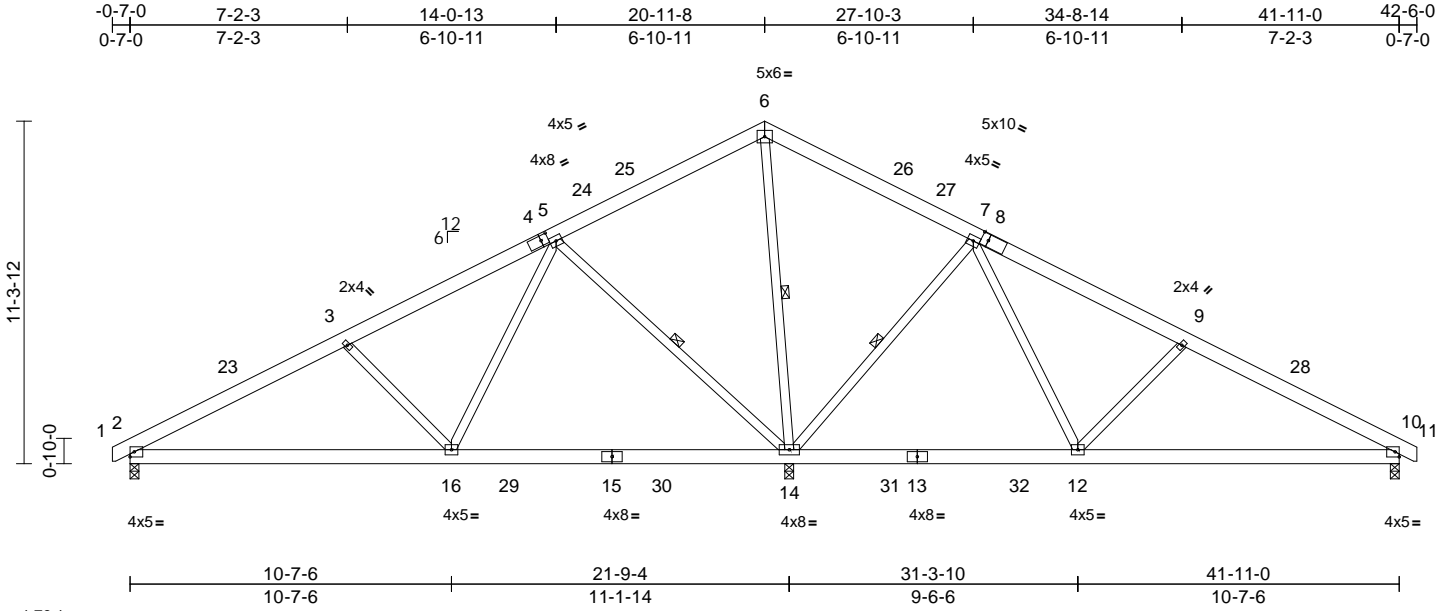
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|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | I69885148 |
| 25050082 | A08 | Common | 2 | 1 | Job Reference (optional) | |

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

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Scale = 1:76.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|----------|-------|-------|--------|-----|----------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.40 | Vert(LL) | -0.12 | 14-16 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | -0.19 | 14-16 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.48 | Horz(CT) | 0.01 | 14 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 293 lb | FT = 20% |

LUMBER

TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 14-5,6-14:2x4 SP No.2

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. Except:
6-0-0 oc bracing: 12-14.

WEBS 1 Row at midpt 5-14, 6-14, 7-14

REACTIONS (size) 2=0-3-8, 10=0-3-8, 14=0-3-8
Max Horiz 2=170 (LC 18)
Max Uplift 2=85 (LC 14), 10=104 (LC 15), 14=180 (LC 14)
Max Grav 2=789 (LC 5), 10=694 (LC 6), 14=2378 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/14, 2-3=1037/133, 3-5=794/109,
5-6=3/538, 6-7=0/587, 7-9=580/154,
9-10=849/177, 10-11=0/14

BOT CHORD 2-16=240/867, 14-16=38/348,
12-14=99/195, 10-12=102/687

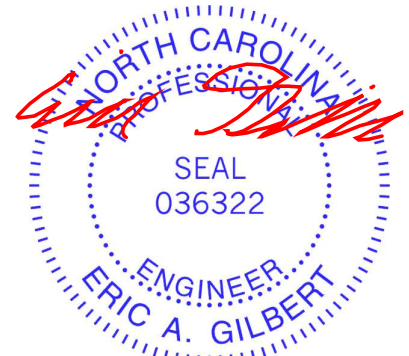
WEBS 5-16=29/774, 3-16=402/218,
5-14=930/262, 7-12=43/724,
9-12=413/215, 6-14=781/101,
7-14=862/263

NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-6-6 to 3-7-15, Interior (1) 3-7-15 to 16-9-3, Exterior(2R) 16-9-3 to 25-1-13, Interior (1) 25-1-13 to 38-3-1, Exterior(2E) 38-3-1 to 42-5-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 14, and 10. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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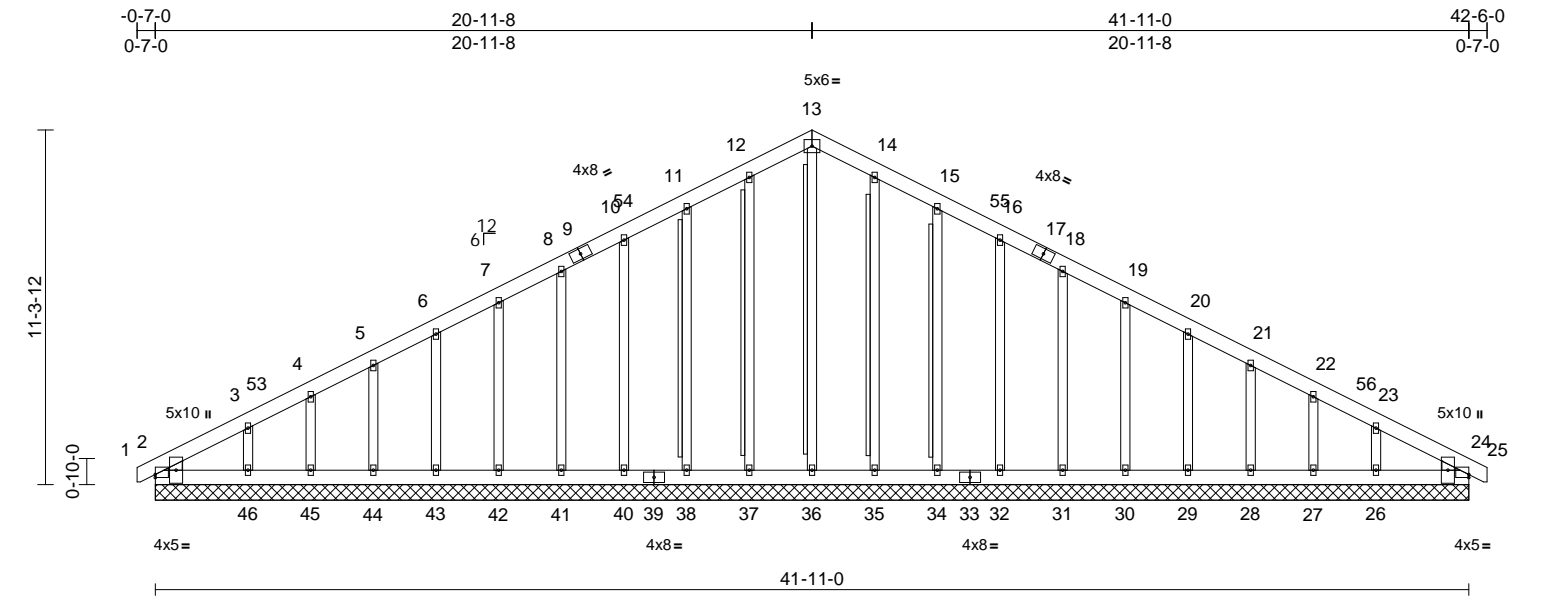
818 Soundside Road
Edenton, NC 27932

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|----------|-------|------------------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885149 |
| 25050082 | A09 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

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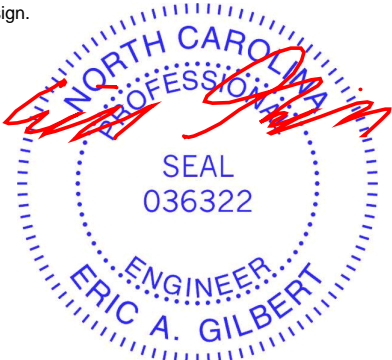
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| | | | | | | | | | | | | |
|---|-------|-----------------|-----------------|------------|------|-------------|------|-------|--------|-----|----------------|-------------|
| Scale = 1:73.5 | | | | | | | | | | | | |
| Plate Offsets (X, Y): [2:Edge,0-1-3], [24:Edge,0-1-3] | | | | | | | | | | | | |
| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.06 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.17 | Horz(CT) | 0.01 | 24 | n/a | n/a | | |
| BCLL | 0.0 * | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 373 lb | FT = 20% |

| | | | | | |
|-------------------------|---|--|---|-----------|---|
| LUMBER | | Max Uplift | 2=-11 (LC 15), 26=-96 (LC 15), 27=-27 (LC 15), 28=-47 (LC 15), 29=-43 (LC 15), 30=-44 (LC 15), 31=-43 (LC 15), 32=-44 (LC 15), 34=-53 (LC 15), 35=-15 (LC 15), 37=-23 (LC 14), 38=-51 (LC 14), 40=-44 (LC 14), 41=-43 (LC 14), 42=-44 (LC 14), 43=-43 (LC 14), 44=-48 (LC 14), 45=-22 (LC 14), 46=-109 (LC 14), 47=-11 (LC 15) | BOT CHORD | 2-46=-62/174, 45-46=-48/174, 44-45=-48/174, 43-44=-48/174, 42-43=-48/174, 41-42=-48/174, 40-41=-48/174, 38-40=-48/174, 37-38=-48/174, 36-37=-48/174, 35-36=-48/174, 34-35=-48/174, 32-34=-48/174, 31-32=-48/174, 30-31=-48/174, 29-30=-48/174, 28-29=-48/174, 27-28=-48/174, 26-27=-48/174, 24-26=-48/174 |
| TOP CHORD | 2x6 SP No.2 | | | | |
| BOT CHORD | 2x6 SP No.2 | | | | |
| OTHERS | 2x4 SP No.3 *Except* | | | | |
| | 36-13,0-0,0-0,0-0,0-0,0-0:2x4 SP No.2 | | | | |
| WEDGE | Left: 2x4 SP No.3 Right: 2x4 SP No.3 | | | | |
| BRACING | | Max Grav | 2=169 (LC 30), 24=148 (LC 22), 26=233 (LC 35), 27=137 (LC 22), 28=165 (LC 35), 29=159 (LC 22), 30=160 (LC 35), 31=160 (LC 1), 32=186 (LC 22), 34=237 (LC 22), 35=237 (LC 22), 36=184 (LC 27), 37=237 (LC 21), 38=237 (LC 21), 40=186 (LC 21), 41=160 (LC 1), 42=160 (LC 34), 43=159 (LC 21), 44=165 (LC 34), 45=137 (LC 21), 46=233 (LC 34), 47=169 (LC 30), 50=148 (LC 22) | WEBS | 13-36=-172/36, 12-37=-197/47, 11-38=-197/89, 10-40=-146/78, 8-41=-120/77, 7-42=-120/77, 6-43=-120/77, 5-44=-121/78, 4-45=-111/68, 3-46=-153/149, 14-35=-197/39, 15-34=-197/89, 16-32=-146/78, 18-31=-120/77, 19-30=-120/77, 20-29=-120/77, 21-28=-121/78, 22-27=-111/68, 23-26=-153/149 |
| 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 | T-Brace: 2x4 SP No.2 - 13-36, 12-37, 11-38, 14-35, 15-34 | | | | |
| | 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 (size) | | | | | |
| | 2=41-11-0, 24=41-11-0, 26=41-11-0, 27=41-11-0, 28=41-11-0, 29=41-11-0, 30=41-11-0, 31=41-11-0, 32=41-11-0, 34=41-11-0, 35=41-11-0, 36=41-11-0, 37=41-11-0, 38=41-11-0, 40=41-11-0, 41=41-11-0, 42=41-11-0, 43=41-11-0, 44=41-11-0, 45=41-11-0, 46=41-11-0, 47=41-11-0, 50=41-11-0 | | | | |
| | Max Horiz 2=-170 (LC 15), 47=-170 (LC 15) | | | | |
| FORCES | | (lb) - Maximum Compression/Maximum Tension | | | |
| TOP CHORD | | 1-2=0/14, 2-3=-216/76, 3-4=-162/79, 4-5=-127/92, 5-6=-103/110, 6-7=-81/133, 7-8=-71/157, 8-10=-74/183, 10-11=-93/229, 11-12=-113/278, 12-13=-124/308, 13-14=-124/308, 14-15=-113/278, 15-16=-93/229, 16-18=-74/183, 18-19=-58/138, 19-20=-53/93, 20-21=-54/48, 21-22=-74/25, 22-23=-97/25, 23-24=-147/54, 24-25=0/14 | | | |

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



December 2,2024

| | | | | | |
|----------|-------|------------------------|-----|-----|-----------------------------------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof |
| 25050082 | A09 | Common Supported Gable | 1 | 1 | I69885149 |
| | | | | | Job Reference (optional) |

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.
II; Exp B; Enclosed; MWFRS (envelope) exterior zone
and C-C Corner(3E) -0-6-6 to 3-7-15, Exterior(2N)
3-7-15 to 16-9-3, Corner(3R) 16-9-3 to 24-11-8, Exterior
(2N) 24-11-8 to 38-3-1, Corner(3E) 38-3-1 to 42-5-6
zone; cantilever left and right exposed ; end vertical left
and right exposed;C-C for members and forces &
MWFRS for reactions shown; Lumber DOL=1.60 plate
grip DOL=1.60
- 3) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate
DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9;
Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this
design.
- 6) This truss has been designed for greater of min roof live
load of 12.0 psf or 1.00 times flat roof load of 20.0 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.
- 12) Provide mechanical connection (by others) of truss to
bearing plate capable of withstanding 11 lb uplift at joint
2, 23 lb uplift at joint 37, 51 lb uplift at joint 38, 44 lb uplift
at joint 40, 43 lb uplift at joint 41, 44 lb uplift at joint 42,
43 lb uplift at joint 43, 48 lb uplift at joint 44, 22 lb uplift at
joint 45, 109 lb uplift at joint 46, 15 lb uplift at joint 35, 53
lb uplift at joint 34, 44 lb uplift at joint 32, 43 lb uplift at
joint 31, 44 lb uplift at joint 30, 43 lb uplift at joint 29, 47
lb uplift at joint 28, 27 lb uplift at joint 27, 96 lb uplift at
joint 26 and 11 lb uplift at joint 2.
- 13) Beveled plate or shim required to provide full bearing
surface with truss chord at joint(s) 24, 50.
- 14) This truss is designed in accordance with the 2018
International Residential Code sections R502.11.1 and
R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Warning: Additional permanent and stability bracing for
truss system (not part of this component design) is
always required.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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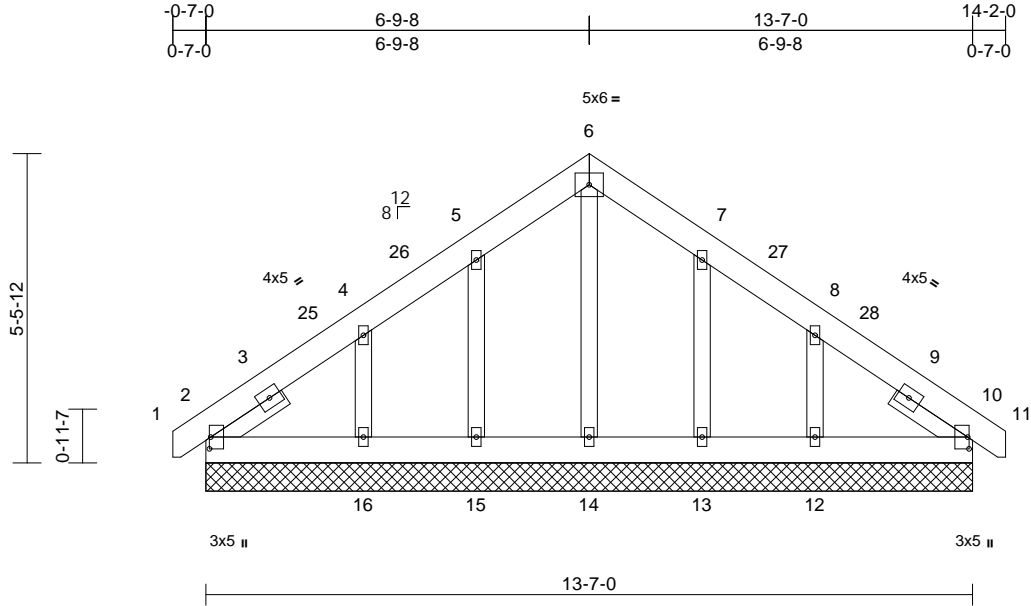
| | | | | | | |
|----------|-------|------------------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | I69885150 |
| 25050082 | B01 | Common Supported Gable | 1 | 1 | Job Reference (optional) | |

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

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Scale = 1:40.8

Plate Offsets (X, Y): [2:0-2-8,0-0-5], [10:0-2-8,0-0-5]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------------------|-------|-----------------|-----------------|------------|------|----------|-------|--------|-----|--------|---------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.04 | Vert(LL) | n/a | - | n/a | 999 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 10 | n/a | n/a | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | |
| Weight: 101 lb FT = 20% | | | | | | | | | | | |

LUMBER

| | |
|-----------|---|
| TOP CHORD | 2x6 SP No.2 |
| BOT CHORD | 2x6 SP No.2 |
| OTHERS | 2x4 SP No.3 |
| SLIDER | Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0 |

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=13-7-0, 10=13-7-0, 12=13-7-0, 13=13-7-0, 14=13-7-0, 15=13-7-0, 16=13-7-0, 17=13-7-0, 21=13-7-0 |
| Max Horiz | 2=-114 (LC 12), 17=-114 (LC 12) |
| Max Uplift | 2=-15 (LC 15), 12=-105 (LC 15), 13=-38 (LC 15), 15=-38 (LC 14), 16=-109 (LC 14), 17=-15 (LC 15) |
| Max Grav | 2=161 (LC 25), 10=160 (LC 1), 12=281 (LC 22), 13=234 (LC 22), 14=125 (LC 31), 15=234 (LC 21), 16=281 (LC 21), 17=161 (LC 25), 21=160 (LC 1) |

FORCES

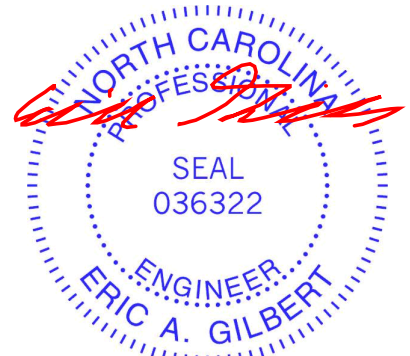
| | |
|--|---|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=0/17, 2-4=-92/68, 4-5=-105/80, 5-6=-107/120, 6-7=-107/120, 7-8=-105/68, 8-10=-69/36, 10-11=0/17 |
| BOT CHORD | 2-16=-28/75, 15-16=-28/75, 14-15=-28/75, 13-14=-28/75, 12-13=-28/75, 10-12=-28/75 |
| WEBS | 6-14=-81/13, 5-15=-206/71, 4-16=-210/112, 7-13=-206/71, 8-12=-210/110 |

NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-6-3 to 2-5-13, Interior (1) 2-5-13 to 3-9-8, Exterior(2R) 3-9-8 to 9-9-8, Interior (1) 9-9-8 to 11-1-2, Exterior(2E) 11-1-2 to 14-1-2 zone; cantilever left and right exposed ; end vertical left and right exposed;C- C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 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.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 2, 38 lb uplift at joint 15, 109 lb uplift at joint 16, 38 lb uplift at joint 13, 105 lb uplift at joint 12 and 15 lb uplift at joint 2.

- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



December 2,2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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| | | | | | |
|----------|-------|---------------|-----|-----|-----------------------------------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof |
| 25050082 | B02 | Common Girder | 1 | 2 | Job Reference (optional) |

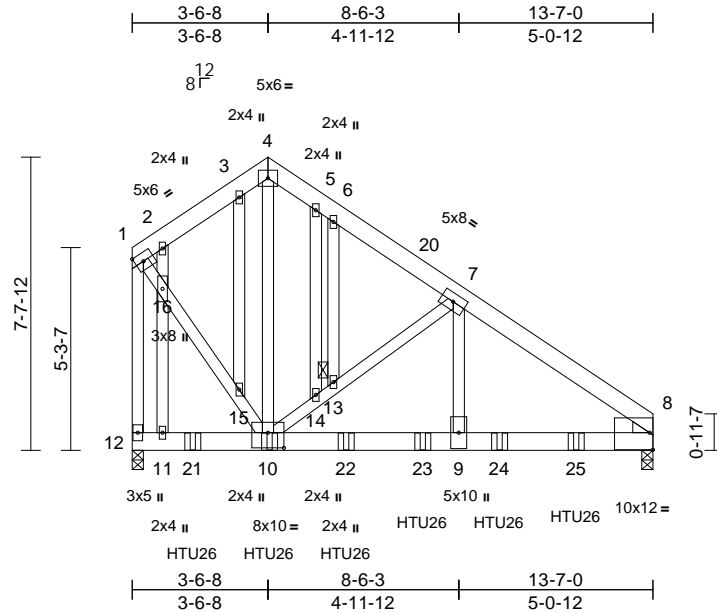
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:31

Page: 1

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Scale = 1:60.1

Plate Offsets (X, Y): [8:Edge,0-5-6], [10:0-5-0,0-4-12]

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | I/defl | L/d | PLATES | GRIP |
|-------------------------|-------|-----------------|-----------------|------------|----------|-------|-------|--------|-----|--------|---------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | Vert(LL) | -0.07 | 9-10 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | Vert(CT) | -0.13 | 9-10 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | Horz(CT) | 0.02 | 8 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | |
| Weight: 279 lb FT = 20% | | | | | | | | | | | |

LUMBER

| | |
|-----------|---------------------------------------|
| TOP CHORD | 2x6 SP No.2 |
| BOT CHORD | 2x6 SP 2400F 2.0E |
| WEBS | 2x4 SP No.3 *Except* 10-1:2x4 SP No.2 |
| OTHERS | 2x4 SP No.3 |
| WEDGE | Right: 2x4 SP No.3 |

BRACING

| | |
|-----------|--|
| TOP CHORD | Structural wood sheathing directly applied or 5-9-15 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

JOINTS 1 Brace at Jt(s): 13

| | | |
|-----------|------------|---------------------------------|
| REACTIONS | (size) | 8=0-3-8, 12=0-3-8 |
| | Max Horiz | 12=-223 (LC 10) |
| | Max Uplift | 8=-534 (LC 13), 12=-603 (LC 13) |
| | Max Grav | 8=5723 (LC 6), 12=6175 (LC 5) |

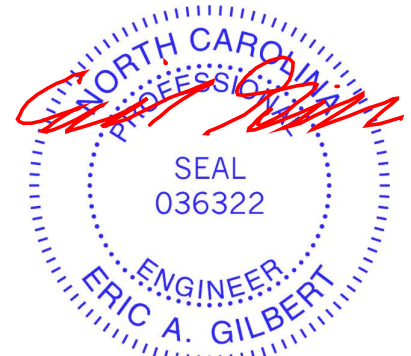
FORCES (lb) - Maximum Compression/Maximum Tension

| | |
|-----------|--|
| TOP CHORD | 1-2=-2987/353, 2-3=-3202/381, 3-4=-2998/367, 4-5=-3084/354, 5-6=-3176/351, 6-7=-3138/327, 7-8=-7033/671, 1-12=-5097/536 |
| BOT CHORD | 11-12=-125/190, 10-11=-125/190, 9-10=-481/5761, 8-9=-481/5761 |
| WEBS | 4-10=-302/3074, 10-14=-4032/506, 13-14=-4108/512, 7-13=-3949/491, 7-9=-361/4414, 1-16=-413/4439, 15-16=-415/4469, 10-15=-443/4725, 6-13=-270/36, 5-14=-19/135, 3-15=-34/310, 2-16=-487/104, 11-16=-524/105 |

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-8-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; 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.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- 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.
- LGT2 Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12. This connection is for uplift only and does not consider lateral forces.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.



December 2,2024

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

ENGINEERING BY
TRENCO
A MiTek Affiliate818 Soundside Road
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| | | | | | |
|----------|-------|---------------|-----|-----|-----------------------------------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof |
| 25050082 | B02 | Common Girder | 1 | 2 | I69885151 |
| | | | | | Job Reference (optional) |

- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 15) Use Simpson Strong-Tie HTU26 (10-16d Girder, 14-10dx1 1/2 Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-7-0 from the left end to 11-7-0 to connect truss(es) to back face of bottom chord.
- 16) Fill all nail holes where hanger is in contact with lumber.
- 17) LGT2 Hurricane ties must have two studs in line below the truss.

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (lb/ft)

Vert: 1-4=-60, 4-8=-60, 12-17=-20

Concentrated Loads (lb)

Vert: 10=-1645 (B), 21=-1645 (B), 22=-1645 (B), 23=-1645 (B), 24=-1645 (B), 25=-1645 (B)

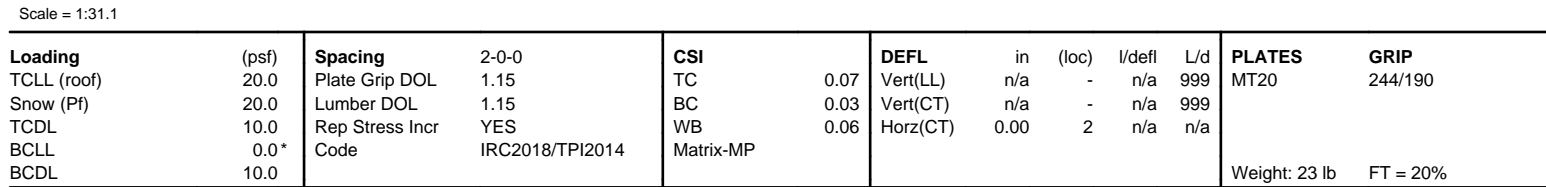
 **WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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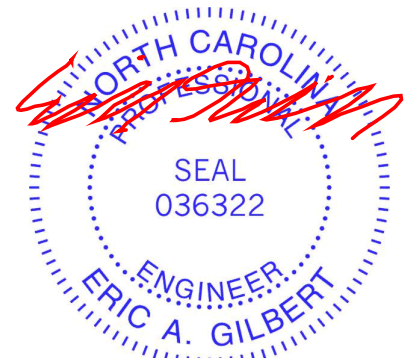


NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed ; end vertical 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 2, 18 lb uplift at joint 7, 32 lb uplift at joint 8, 44 lb uplift at joint 9 and 2 lb uplift at joint 2.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2, 2024



WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEL REFERENCE PAGE MIT-TR-17-0169, 1/12/2023 BEFORE USE.

Design valid for use only with MiTeTe® 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Components Association (www.sbcacomponents.com)



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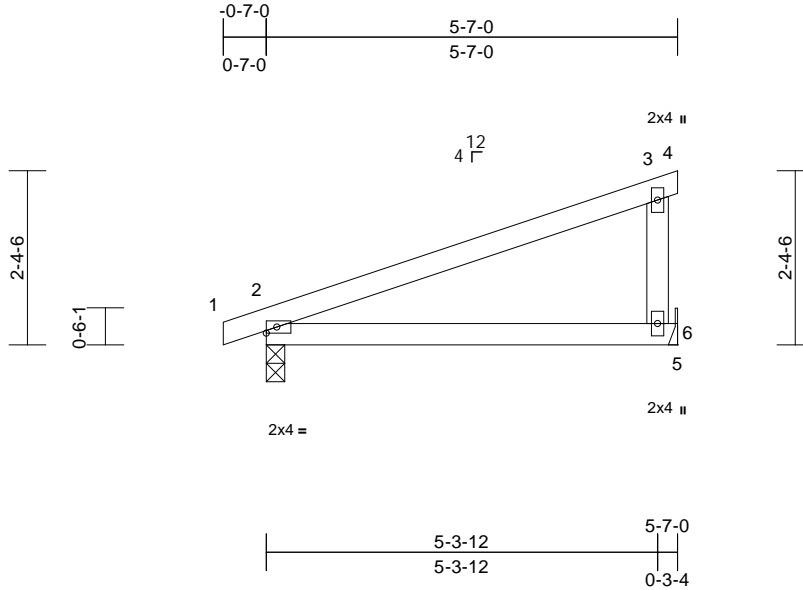
| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | I69885153 |
| 25050082 | C02 | Monopitch | 3 | 1 | Job Reference (optional) | |

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Scale = 1:31.3

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.63 | Vert(LL) | 0.16 | 6-9 | >411 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.55 | Vert(CT) | 0.13 | 6-9 | >503 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | -0.02 | 2 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 21 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 5-7-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 6= Mechanical
Max Horiz 2=77 (LC 10)
Max Uplift 2=-88 (LC 10), 6=-96 (LC 10)
Max Grav 2=344 (LC 21), 6=317 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-82/80, 3-4=-8/0, 3-6=-233/202
BOT CHORD 2-6=-148/122, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 6.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2, 2024

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Edenton, NC 27932

| | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof |
| 25050082 | C03 | Monopitch | 6 | 1 | Job Reference (optional) |

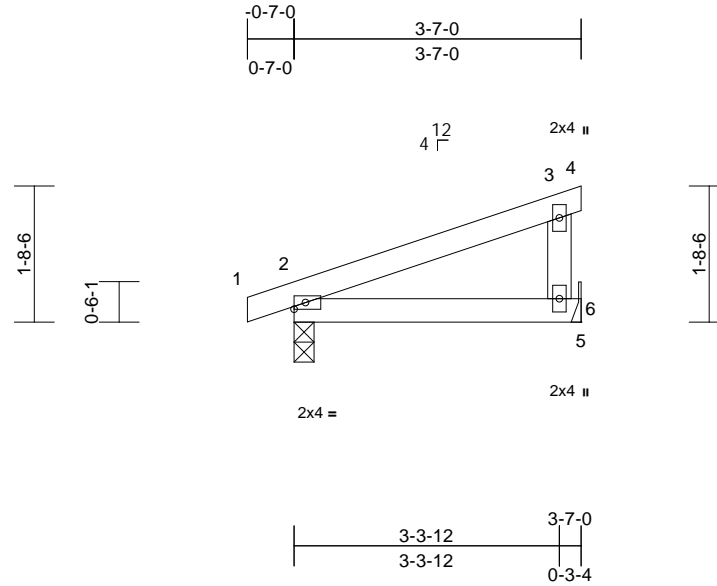
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Scale = 1:28.8

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.21 | Vert(LL) | 0.02 | 6-9 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.20 | Vert(CT) | 0.02 | 6-9 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horz(CT) | 0.00 | 2 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 14 lb | FT = 20% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-0, 6= Mechanical
 Max Horiz 2=53 (LC 10)
 Max Uplift 2=-63 (LC 10), 6=-61 (LC 10)
 Max Grav 2=231 (LC 21), 6=202 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/16, 2-3=-51/32, 3-4=-7/0, 3-6=-148/127
 BOT CHORD 2-6=-88/51, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 6.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

December 2, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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818 Soundside Road
 Edenton, NC 27932

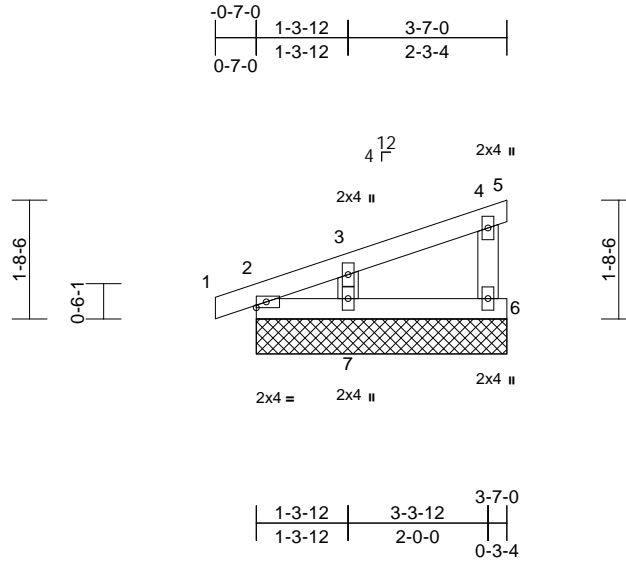
| | | | | | | |
|----------|-------|---------------------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885155 |
| 25050082 | C04 | Monopitch Supported Gable | 1 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:32

Page: 1

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Scale = 1:32.9

| Loading | (psf) | Spacing | 1-11-4 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.07 | Vert(LL) | n/a | - | n/a | 999 | MT20 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.03 | Vert(CT) | n/a | - | n/a | 999 | 244/190 |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.06 | Horz(CT) | 0.00 | 2 | n/a | n/a | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | |
| | | | | | | | | | | Weight: 14 lb | FT = 20% |

LUMBER

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

BRACING

| | |
|-----------|---|
| TOP CHORD | Structural wood sheathing directly applied or 3-7-0 oc purlins, except end verticals. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. |

REACTIONS

| | |
|------------|--|
| (size) | 2=3-7-0, 6=3-7-0, 7=3-7-0, 8=3-7-0 |
| Max Horiz | 2=51 (LC 10), 8=51 (LC 10) |
| Max Uplift | 2=-10 (LC 10), 6=-19 (LC 10), 7=-40 (LC 14), 8=-10 (LC 10) |
| Max Grav | 2=100 (LC 21), 6=110 (LC 21), 7=204 (LC 21), 8=100 (LC 21) |

FORCES

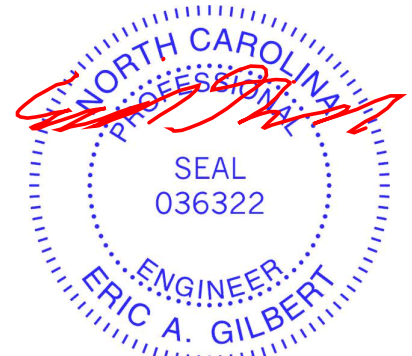
| | |
|--|---|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=-0/15, 2-3=-93/32, 3-4=-31/17, 4-5=-7/0, 4-6=-94/69 |
| BOT CHORD | 2-7=-37/16, 6-7=0/0 |
| WEBS | 3-7=-167/189 |

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) zone; cantilever left and right exposed; end vertical 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 2, 19 lb uplift at joint 6, 40 lb uplift at joint 7 and 10 lb uplift at joint 2.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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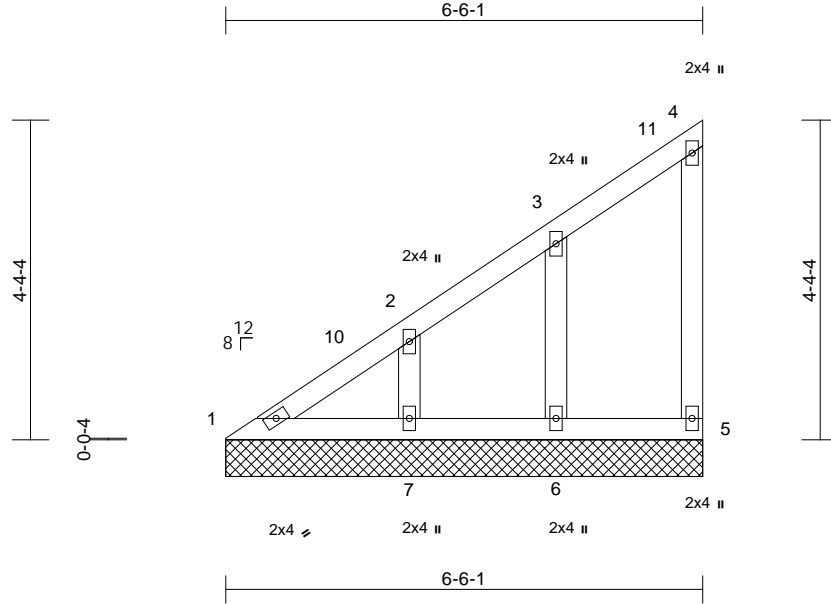
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | I69885156 |
| 25050082 | V01 | Valley | 1 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:32
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Page: 1



Scale = 1:31.4

| Loading | (psf) | Spacing | 1-11-4 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|-----------|------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.25 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.06 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 31 lb | FT = 20% |

LUMBER

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

BRACING

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

| | | |
|-----------|------------|---|
| REACTIONS | (size) | 1=6-6-1, 5=6-6-1, 6=6-6-1, 7=6-6-1 |
| | Max Horiz | 1=140 (LC 11) |
| | Max Uplift | 1=-3 (LC 10), 5=-23 (LC 11), 6=-58 (LC 14), 7=-59 (LC 14) |
| | Max Grav | 1=101 (LC 25), 5=88 (LC 20), 6=240 (LC 20), 7=269 (LC 20) |

FORCES

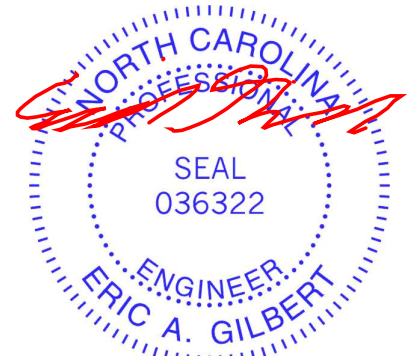
| | |
|-----------|---|
| | (lb) - Maximum Compression/Maximum Tension |
| TOP CHORD | 1-2=-139/164, 2-3=-93/123, 3-4=-78/81, 4-5=-79/32 |
| BOT CHORD | 1-7=-49/134, 6-7=-49/72, 5-6=-49/72 |
| WEBS | 3-6=-207/118, 2-7=-198/106 |

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this design.
- 5) Gable requires continuous bottom chord bearing.
- 6) Gable studs spaced at 2'-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-06-00 tall by 2'-00-00 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 5, 3 lb uplift at joint 1, 58 lb uplift at joint 6 and 59 lb uplift at joint 7.
- 10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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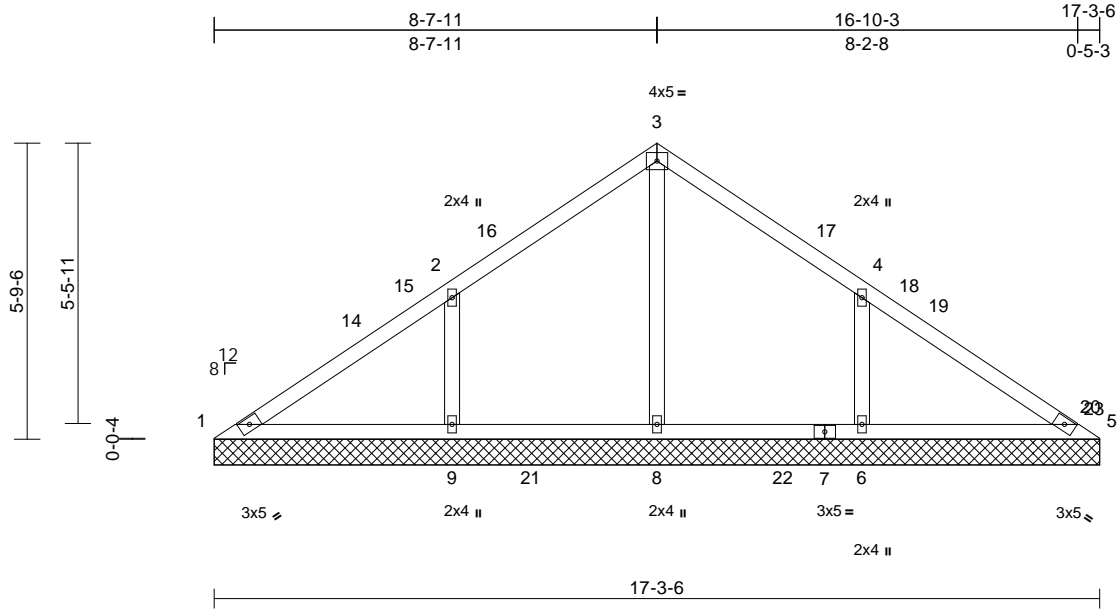
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885157 |
| 25050082 | V02 | Valley | 1 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:32
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Page: 1



Scale = 1:45

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.37 | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.18 | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.19 | Horiz(TL) | 0.00 | 5 | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | |
| BCDL | 10.0 | | | | | | | | | Weight: 70 lb | FT = 20% |

LUMBER

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

BRACING

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

REACTIONS

| | |
|------------|--|
| (size) | 1=17-3-6, 5=17-3-6, 6=17-3-6, 8=17-3-6, 9=17-3-6 |
| Max Horiz | 1=131 (LC 11) |
| Max Uplift | 1=-4 (LC 10), 6=-144 (LC 15), 9=-147 (LC 14) |
| Max Grav | 1=103 (LC 25), 5=78 (LC 36), 6=528 (LC 21), 8=502 (LC 24), 9=530 (LC 20) |

FORCES

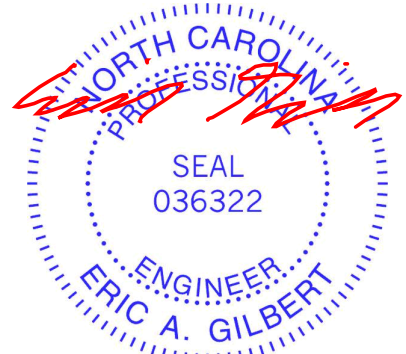
| | |
|--|--|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=-130/262, 2-3=-48/203, 3-4=-49/189, 4-5=-103/235 |
| BOT CHORD | 1-9=-156/131, 8-9=-156/96, 6-8=-156/96, 5-6=-156/96 |
| WEBS | 3-8=-341/10, 2-9=-414/183, 4-6=-413/181 |

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Interior (1) 3-0-6 to 5-8-1, Exterior(2R) 5-8-1 to 11-8-1, Interior (1) 11-8-1 to 13-10-6, Exterior(2E) 13-10-6 to 16-10-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1, 147 lb uplift at joint 9 and 144 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 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 and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)

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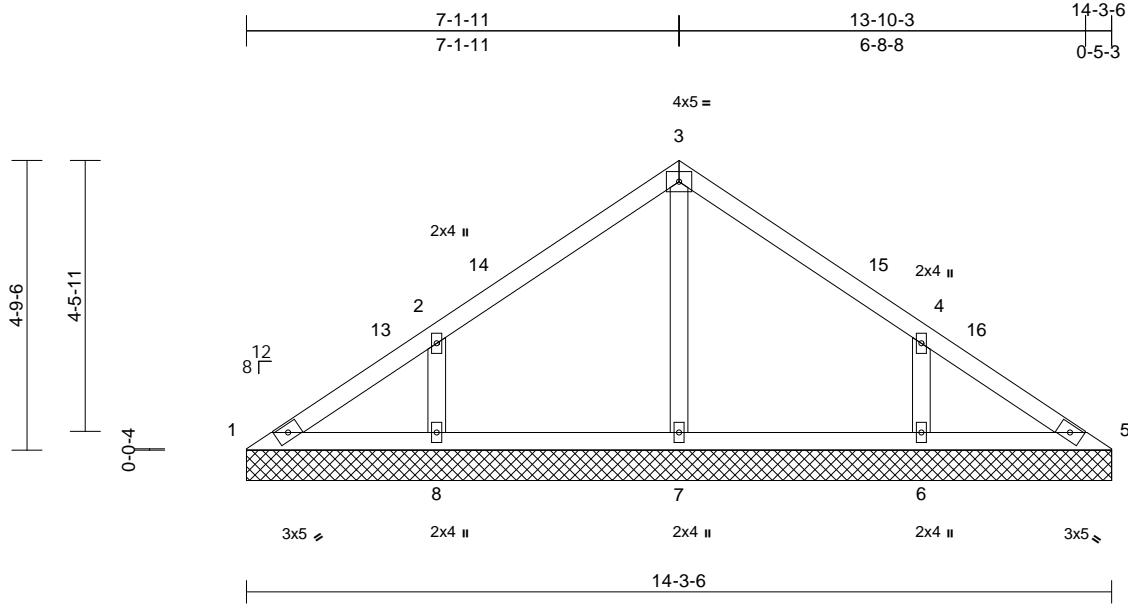
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885158 |
| 25050082 | V03 | Valley | 1 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:32
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Page: 1



Scale = 1:38

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.30 | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.11 | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.10 | Horiz(TL) | 0.00 | 5 | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | |
| BCDL | 10.0 | | | | | | | | | Weight: 56 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 6-0-0 oc bracing. |

REACTIONS

| | |
|------------|--|
| (size) | 1=14-3-6, 5=14-3-6, 6=14-3-6, 7=14-3-6, 8=14-3-6 |
| Max Horiz | 1=-108 (LC 10) |
| Max Uplift | 1=-12 (LC 15), 6=-119 (LC 15), 8=-121 (LC 14) |
| Max Grav | 1=98 (LC 25), 5=88 (LC 1), 6=463 (LC 21), 7=314 (LC 20), 8=463 (LC 20) |

FORCES

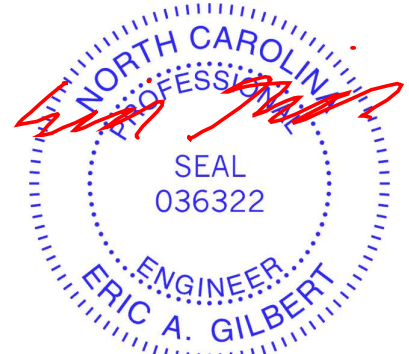
| | |
|--|--|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=-132/117, 2-3=-137/103, 3-4=-137/92, 4-5=-106/85 |
| BOT CHORD | 1-8=-47/114, 7-8=-47/68, 6-7=-47/68, 5-6=-47/83 |
| WEBS | 3-7=-233/9, 2-8=-385/160, 4-6=-385/159 |

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-2-1, Interior (1) 3-2-1 to 4-2-1, Exterior(2R) 4-2-1 to 10-2-1, Interior (1) 10-2-1 to 11-2-1, Exterior(2E) 11-2-1 to 14-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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 12 lb uplift at joint 1, 121 lb uplift at joint 8 and 119 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



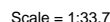
December 2, 2024

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

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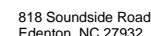
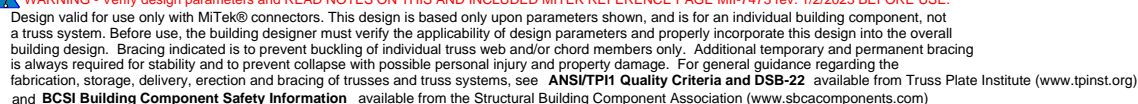
818 Soundside Road
Edenton, NC 27932

Page: 1

- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 1, 80 lb uplift at joint 3 and 107 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 8-3-12, Exterior(2E) 8-3-12 to 11-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for roof 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.



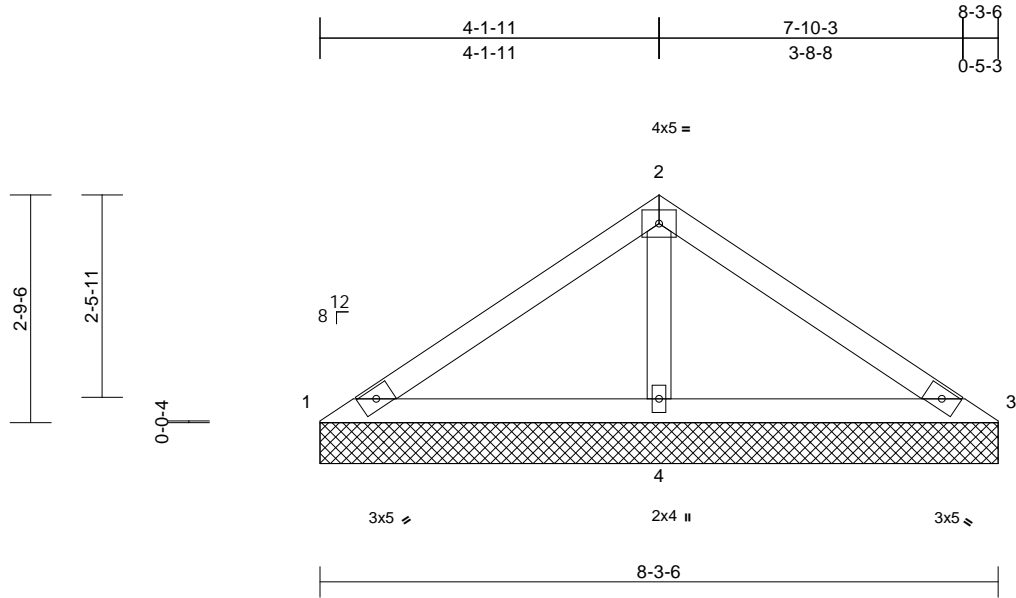
| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | 169885160 |
| 25050082 | V05 | Valley | 1 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:32

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Scale = 1:28.1

| Loading | (psf) | Spacing | 1-11-4 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.33 | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.32 | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.10 | Horiz(TL) | 0.00 | 4 | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | |
| BCDL | 10.0 | | | | | | | | | Weight: 29 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 8-3-6 oc purlins. |
| BOT CHORD | Rigid ceiling directly applied or 6-0-0 oc bracing. |

REACTIONS

| | |
|------------|---|
| (size) | 1=8-3-6, 3=8-3-6, 4=8-3-6 |
| Max Horiz | 1=-59 (LC 10) |
| Max Uplift | 1=-30 (LC 21), 3=-30 (LC 20), 4=-67 (LC 14) |
| Max Grav | 1=101 (LC 20), 3=101 (LC 21), 4=609 (LC 21) |

FORCES

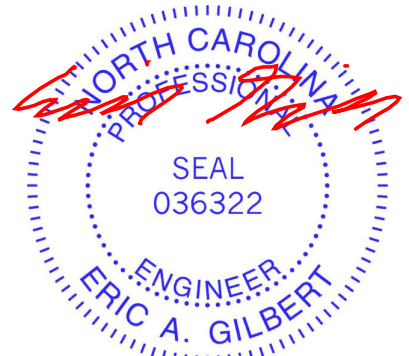
| | |
|--|----------------------------|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=-97/296, 2-3=-97/296 |
| BOT CHORD | 1-4=-245/148, 3-4=-245/148 |
| WEBS | 2-4=-487/191 |

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-6 to 3-0-6, Exterior(2R) 3-0-6 to 5-3-12, Exterior(2E) 5-3-12 to 8-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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 30 lb uplift at joint 1, 30 lb uplift at joint 3 and 67 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2, 2024

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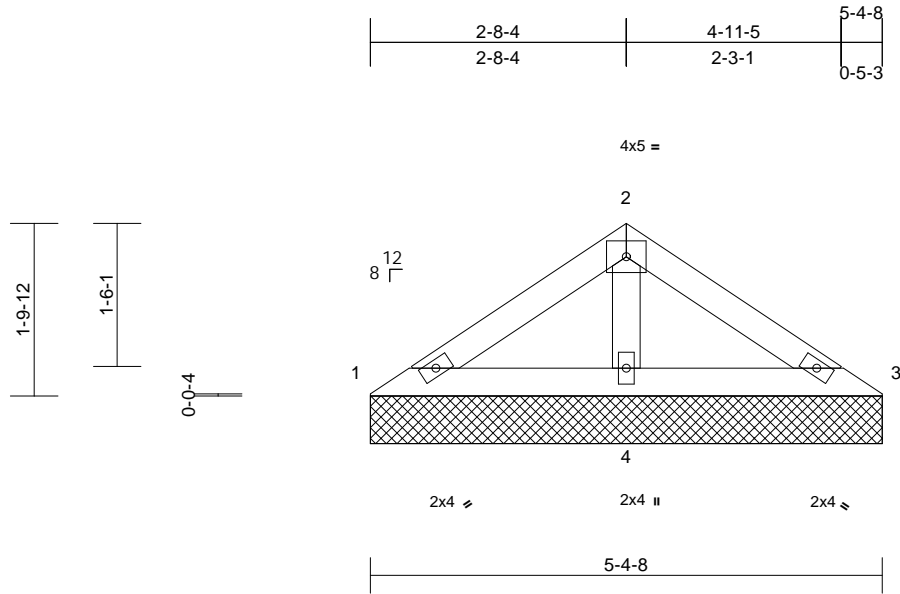
| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | I69885161 |
| 25050082 | V06 | Valley | 1 | 1 | Job Reference (optional) | |

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

Run: 8.73 S Oct 31 2024 Print: 8.730 S Oct 31 2024 MiTek Industries, Inc. Wed Nov 27 11:10:33

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Scale = 1:24.2

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.11 | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.13 | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horiz(TL) | 0.00 | 4 | n/a | n/a | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | |
| | | | | | | | | | | Weight: 18 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 5-4-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=5-4-8, 3=5-4-8, 4=5-4-8
Max Horiz 1=-38 (LC 10)
Max Uplift 1=-5 (LC 14), 3=-11 (LC 15), 4=-30 (LC 14)
Max Grav 1=92 (LC 20), 3=92 (LC 21), 4=331 (LC 21)

FORCES

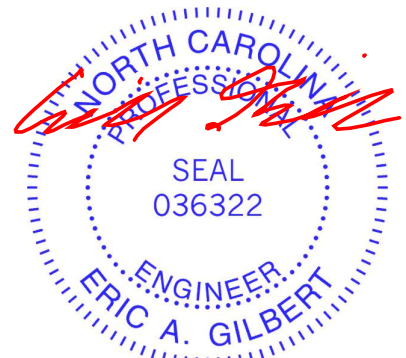
(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-90/129, 2-3=-90/129
BOT CHORD 1-4=-111/88, 3-4=-111/88
WEBS 2-4=-243/107

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 5) Unbalanced snow loads have been considered for this design.
 - 6) Gable requires continuous bottom chord bearing.
 - 7) Gable studs spaced at 4-0-0 oc.
 - 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 11 lb uplift at joint 3 and 30 lb uplift at joint 4.
 - 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



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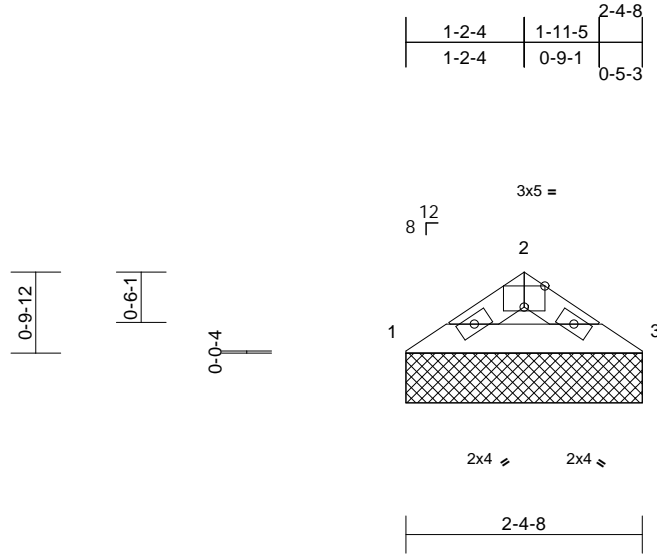
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | |
| 25050082 | V07 | Valley | 1 | 1 | Job Reference (optional) | I69885162 |

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

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Page: 1



Scale = 1:23.2

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|-----------|------|-------|--------|-----|--------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.03 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.05 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 6 lb | FT = 20% |

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=2-4-8, 3=2-4-8
Max Horiz 1=15 (LC 11)
Max Uplift 1=-9 (LC 14), 3=-9 (LC 15)
Max Grav 1=105 (LC 20), 3=105 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

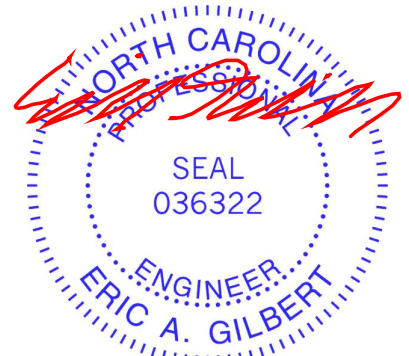
TOP CHORD 1-2=-146/52, 2-3=-146/52
BOT CHORD 1-3=-31/113

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.

- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 1 and 9 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



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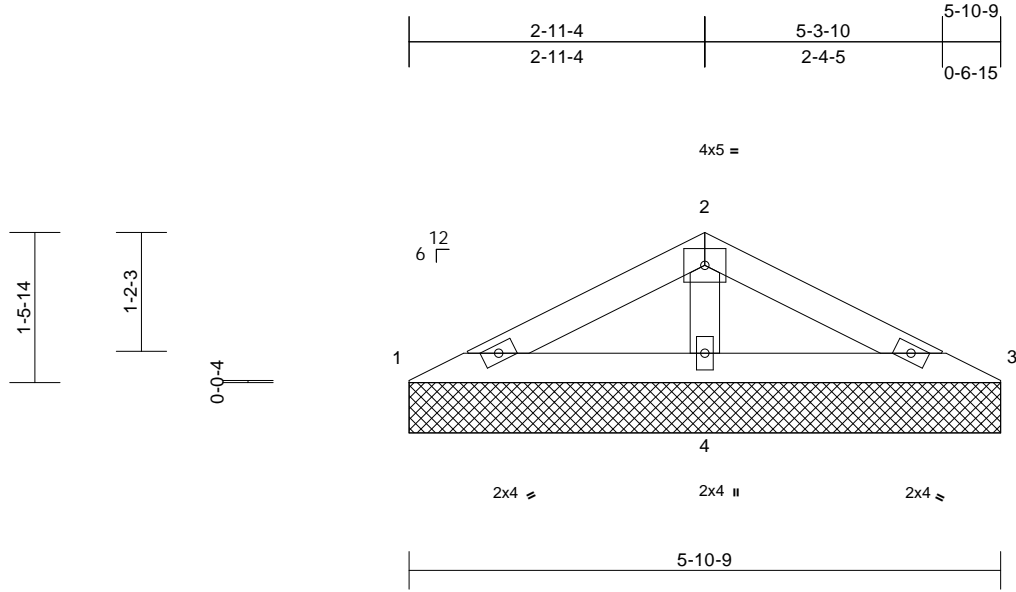
| | | | | | | |
|----------|-------|------------|-----|-----|-----------------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | 9 Mason Ridge - Columbia B - Roof | I69885163 |
| 25050082 | VL6 | Valley | 1 | 1 | Job Reference (optional) | |

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

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Scale = 1:22.9

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|-------------|-------|-----------------|-----------------|-----------|------|-----------|-------|--------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.12 | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.14 | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horiz(TL) | 0.00 | 4 | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | |
| BCDL | 10.0 | | | | | | | | | Weight: 18 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 5-10-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=5-10-9, 3=5-10-9, 4=5-10-9
Max Horiz 1=21 (LC 14)
Max Uplift 1=-10 (LC 14), 3=-15 (LC 15), 4=-26 (LC 14)
Max Grav 1=99 (LC 20), 3=99 (LC 21), 4=353 (LC 1)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-109/154, 2-3=-109/154
BOT CHORD 1-4=-136/99, 3-4=-136/99
WEBS 2-4=-244/126

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 15 lb uplift at joint 3 and 26 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



December 2,2024

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Symbols

PLATE LOCATION AND ORIENTATION



* Plate location details available in MITek 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.

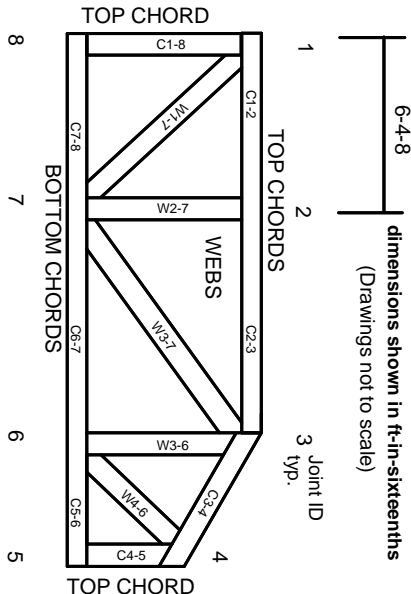
BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter 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-22: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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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General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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

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MITek Engineering Reference Sheet: MII-7473 rev. 1/2/2023