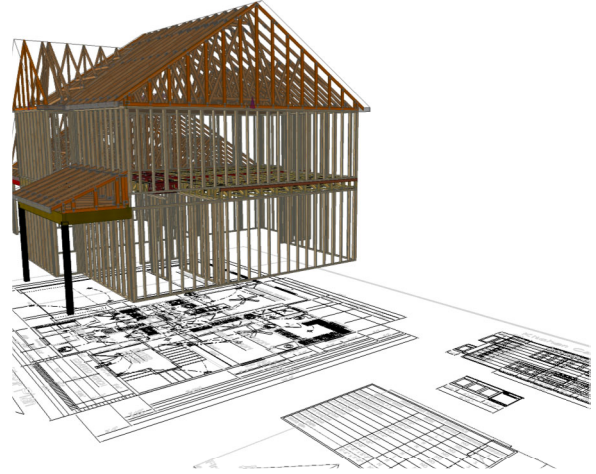




Kempsville Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450

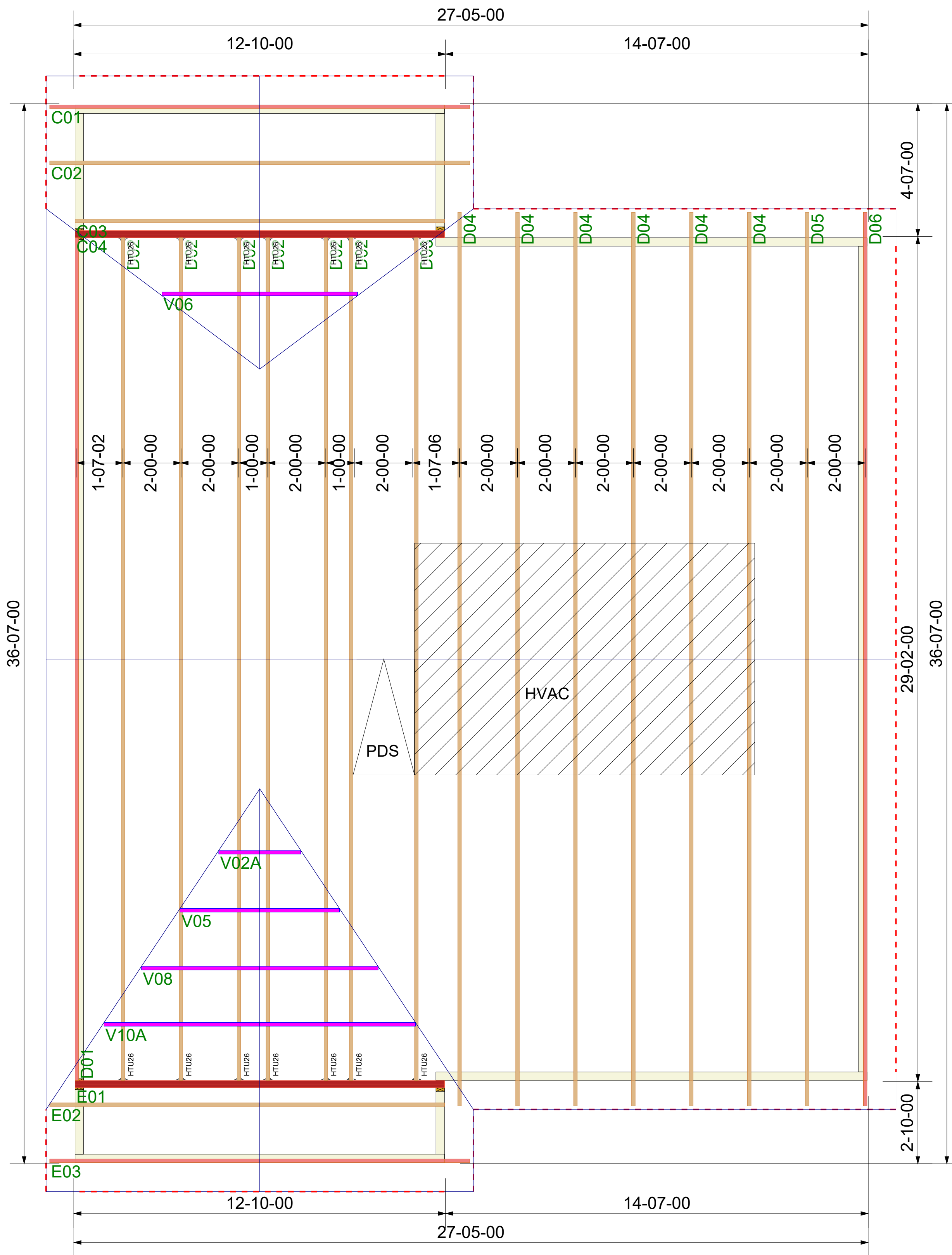
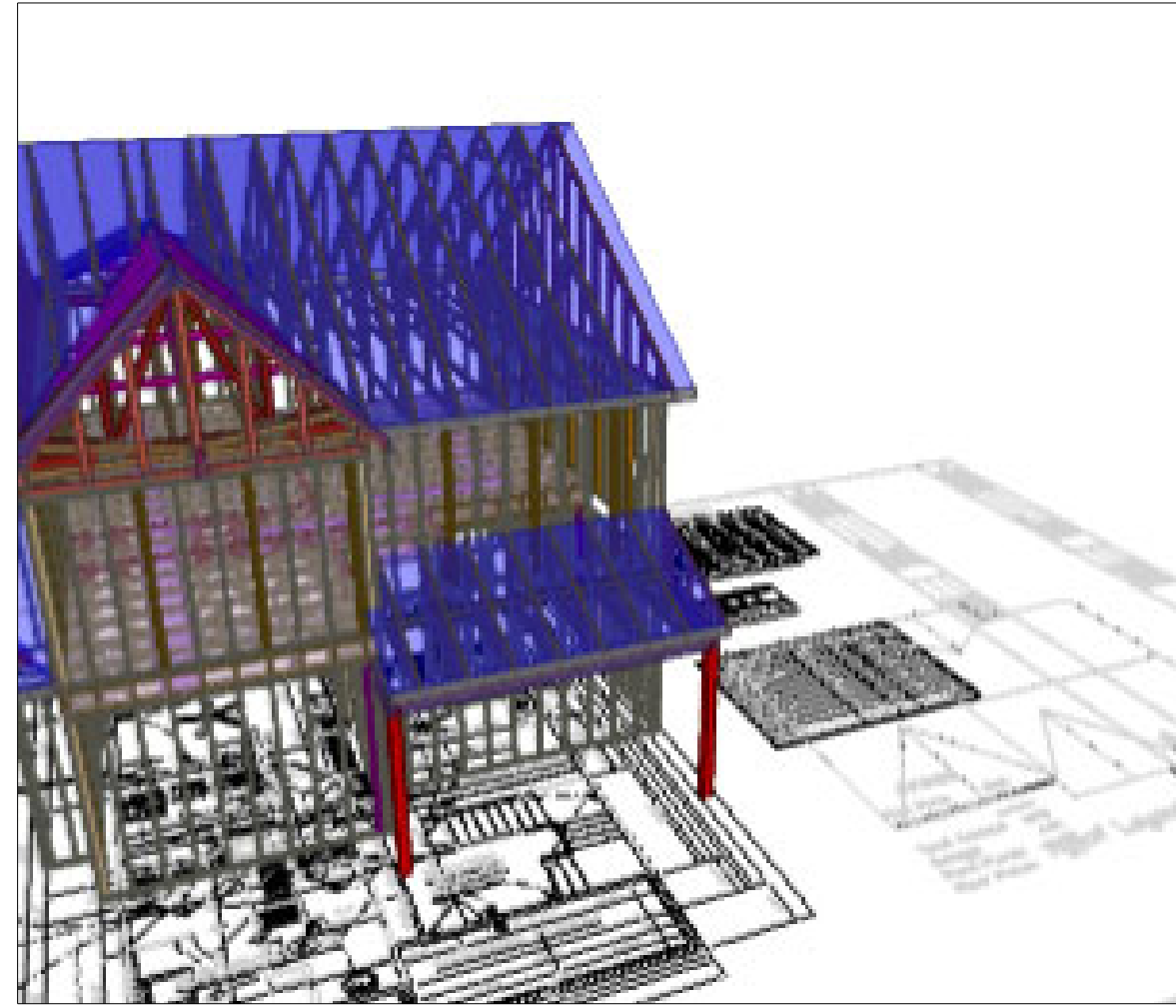
Builder: New Castle
Contractors
Model: Hayes A Spring
Lake



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.

General Notes: ** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION. ** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.



| Revisions | |
|-----------|------|
| 00/00/00 | Name |
| 00/00/00 | Name |
| 00/00/00 | Name |
| 00/00/00 | Name |
| 00/00/00 | Name |

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 Truss" available from the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53179.



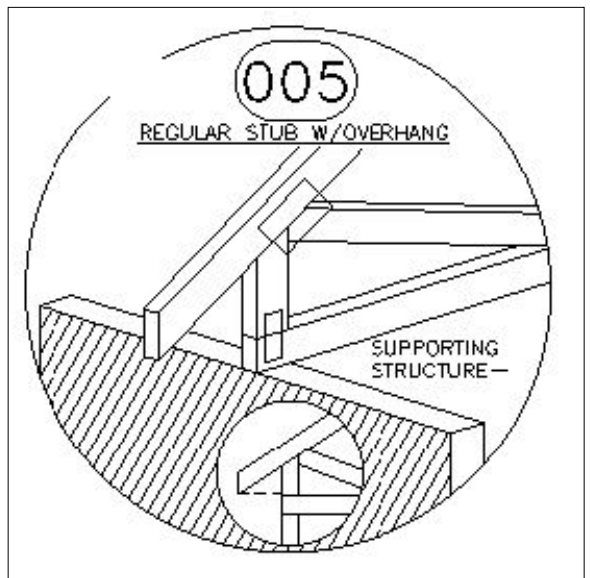
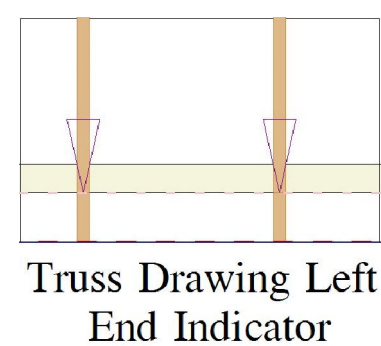
New Castle Contractors
Old Salem
COMPONENT PLAN

Scale: NTS
Date: 6/6/2024
Designer: NC
Project Number: 24050164-A23110107
Sheet Number:

1/1

** DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH. ** TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE. ** GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS. **

** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT. ** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. ** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS. ** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES. ** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS. **

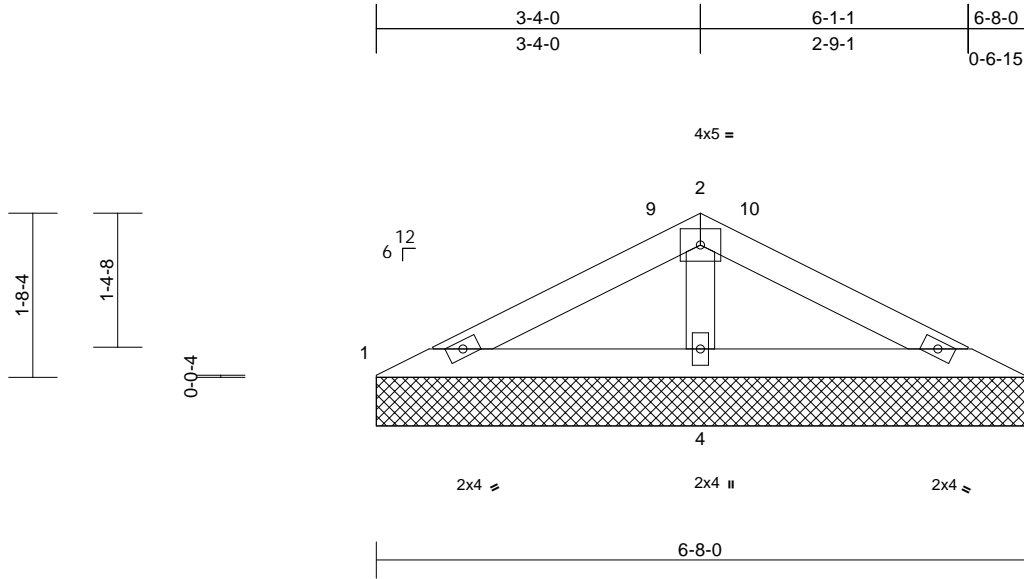


| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V06 | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356808 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 16:00:01
ID:7iA?GrsyZElywua1edcC7EzHsFE-RfC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 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 | 0.16 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.18 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horiz(TL) | 0.00 | 4 | 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
OTHERS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-8-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=6-8-0, 3=6-8-0, 4=6-8-0
Max Horiz 1=23 (LC 14)
Max Uplift 1=-10 (LC 14), 3=-15 (LC 15), 4=-31 (LC 14)
Max Grav 1=103 (LC 20), 3=103 (LC 21), 4=407 (LC 20)

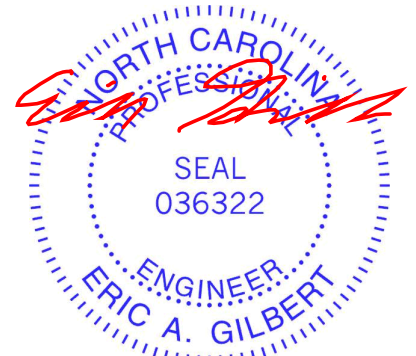
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-116/191, 2-3=-116/191
BOT CHORD 1-4=-139/116, 3-4=-139/116
WEBS 2-4=-267/157

- 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 10 lb uplift at joint 1, 15 lb uplift at joint 3 and 31 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

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) 0-0-8 to 3-0-8, Exterior(2R) 3-0-8 to 3-8-8, Exterior(2E) 3-8-8 to 6-8-8 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
- 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.



December 5, 2023

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/TPI 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)



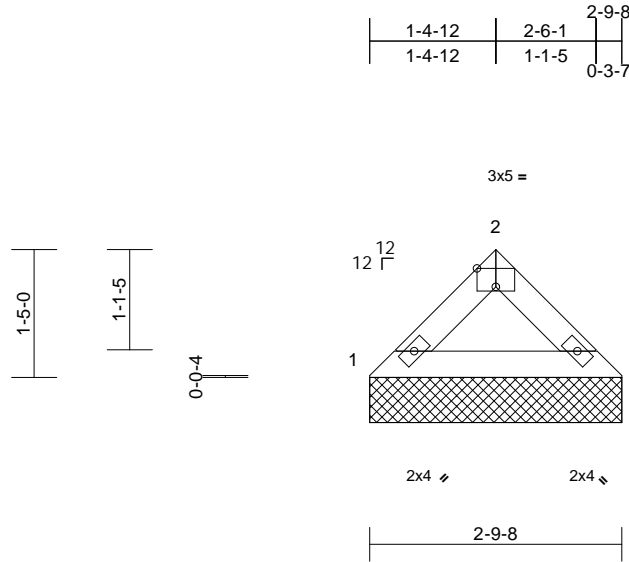
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|----------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Hayes Rd A | 162356809 |
| 24050164 | V02A | Valley | 1 | 1 | Job Reference (optional) | |

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

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Page: 1



Scale = 1:25.5

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 | 0.06 | 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: 9 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 2-9-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-9-8, 3=2-9-8
Max Horiz 1=-28 (LC 12)
Max Uplift 1=-8 (LC 14), 3=-8 (LC 15)
Max Grav 1=130 (LC 20), 3=130 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension

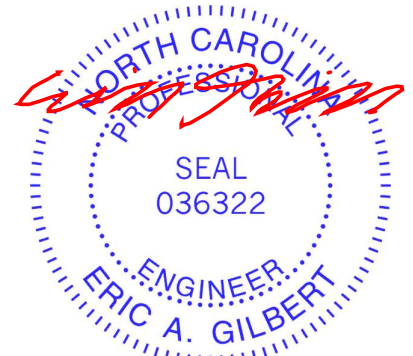
TOP CHORD 1-2=-150/70, 2-3=-150/70
BOT CHORD 1-3=-34/100

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) 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 8 lb uplift at joint 1 and 8 lb uplift at joint 3.
- 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 5, 2023

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/TPI 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

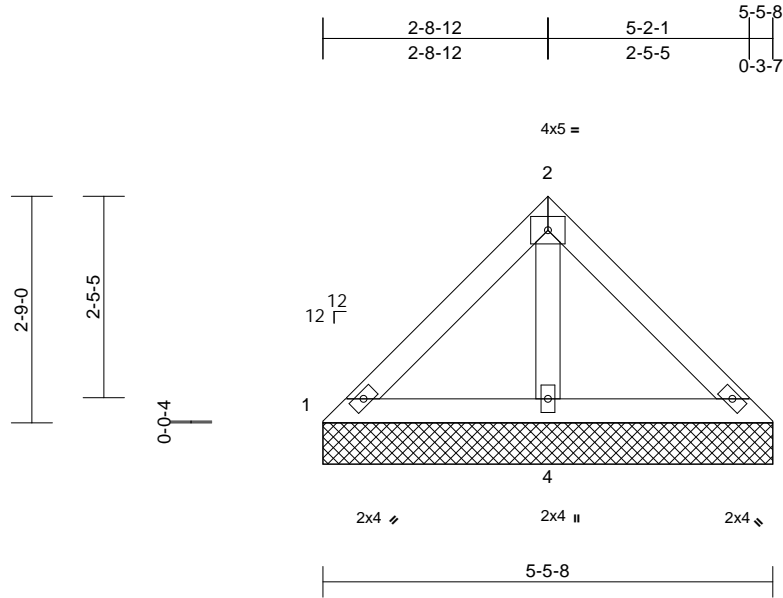
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V05 | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356810 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 16:00:01
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Page: 1



Scale = 1:28

| 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 | 0.13 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.15 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horiz(TL) | 0.00 | 3 | 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
 OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-5-8 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=5-5-8, 3=5-5-8, 4=5-5-8
 Max Horiz 1=-60 (LC 10)
 Max Uplift 4=-56 (LC 14)
 Max Grav 1=100 (LC 20), 3=100 (LC 21), 4=352 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-83/126, 2-3=-83/126
 BOT CHORD 1-4=-99/123, 3-4=-99/123
 WEBS 2-4=-227/139

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 56 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 5, 2023

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/TPI 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)



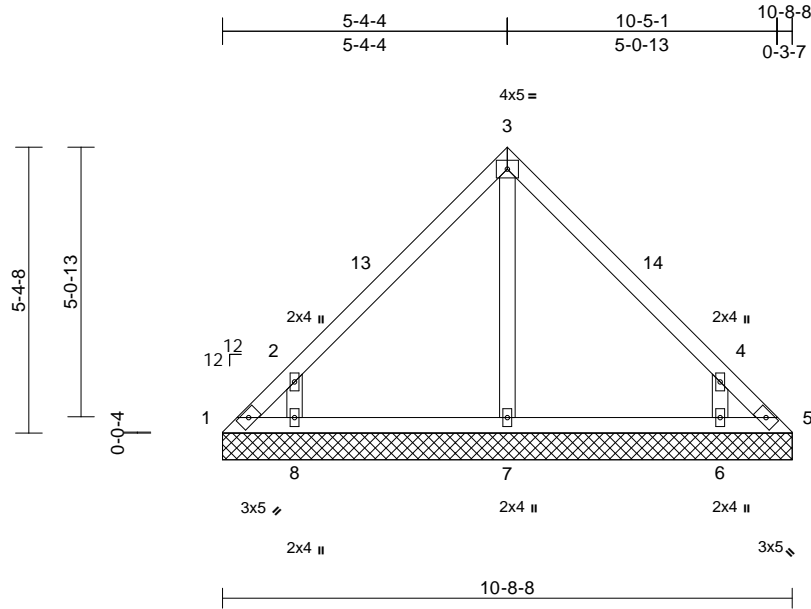
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|-----------------|---------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V10A | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356812 |
|-----------------|---------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 16:00:02
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Page: 1



Scale = 1:43.3

| 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 | 0.34 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.13 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.10 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | Weight: 47 lb | FT = 20% | |

LUMBER

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

BRACING

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

REACTIONS

(size) 1=10-8-8, 5=10-8-8, 6=10-8-8, 7=10-8-8, 8=10-8-8
Max Horiz 1=-118 (LC 10)
Max Uplift 1=-73 (LC 12), 5=-43 (LC 13), 6=-165 (LC 15), 8=-171 (LC 14)
Max Grav 1=102 (LC 14), 5=82 (LC 15), 6=461 (LC 21), 7=225 (LC 20), 8=461 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-183/130, 2-3=-252/122, 3-4=-252/122, 4-5=-161/98
BOT CHORD 1-8=-50/87, 7-8=-33/83, 6-7=-33/83, 5-6=-57/92
WEBS 3-7=-139/0, 2-8=-483/333, 4-6=-483/333

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) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 7-8-12, Exterior(2E) 7-8-12 to 10-8-12 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 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 73 lb uplift at joint 1, 43 lb uplift at joint 5, 171 lb uplift at joint 8 and 165 lb uplift at joint 6.
- 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 5, 2023

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/TPI 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)



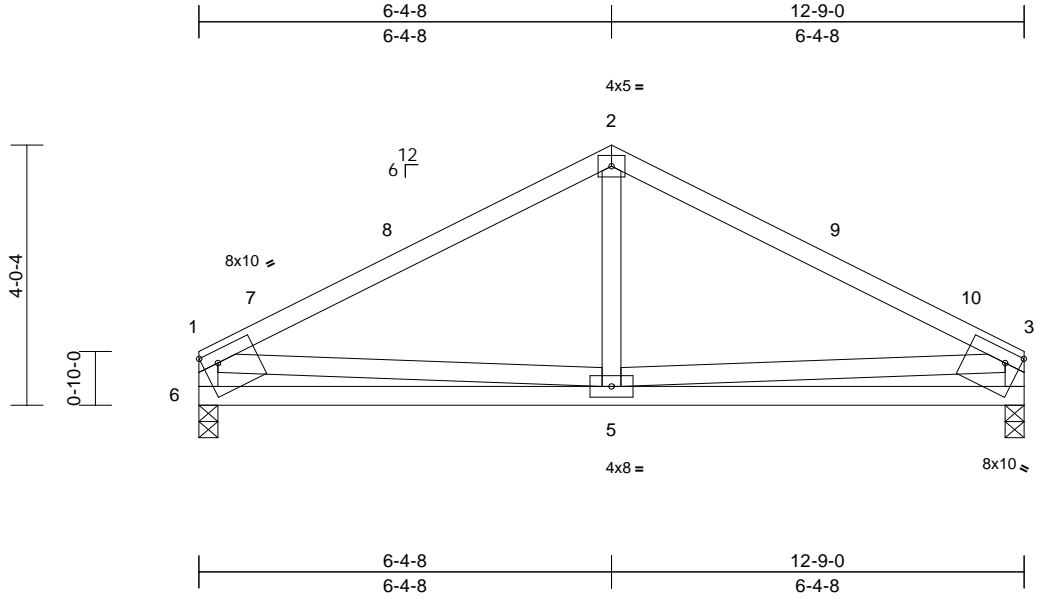
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss C03 | Truss Type Common | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356813 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:53
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Page: 1



Scale = 1:35.6

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

| 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 | 0.87 | Vert(LL) | -0.03 | 4-5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.35 | Vert(CT) | -0.07 | 4-5 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.14 | Horz(CT) | 0.01 | 4 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 64 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 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 4=0-3-8, 6=0-3-8
Max Horiz 6=-57 (LC 10)
Max Uplift 4=-46 (LC 15), 6=-46 (LC 14)
Max Grav 4=590 (LC 21), 6=590 (LC 20)

FORCES

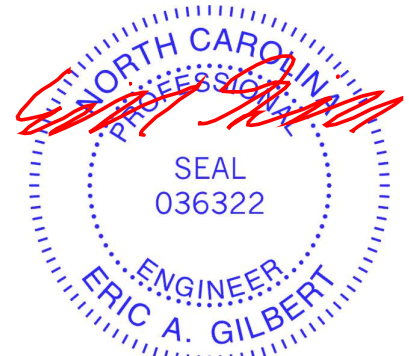
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-675/221, 2-3=-675/221, 1-6=-534/202, 3-4=-534/202
BOT CHORD 5-6=-123/381, 4-5=-123/381
WEBS 2-5=0/243, 1-5=0/350, 3-5=-1/350

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) 0-1-12 to 3-1-12, Exterior (2R) 3-1-12 to 9-7-4, Exterior(2E) 9-7-4 to 12-7-4 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 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 6 and 4. This connection is for uplift only and does not consider lateral forces.
- 8) 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 5, 2023

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)



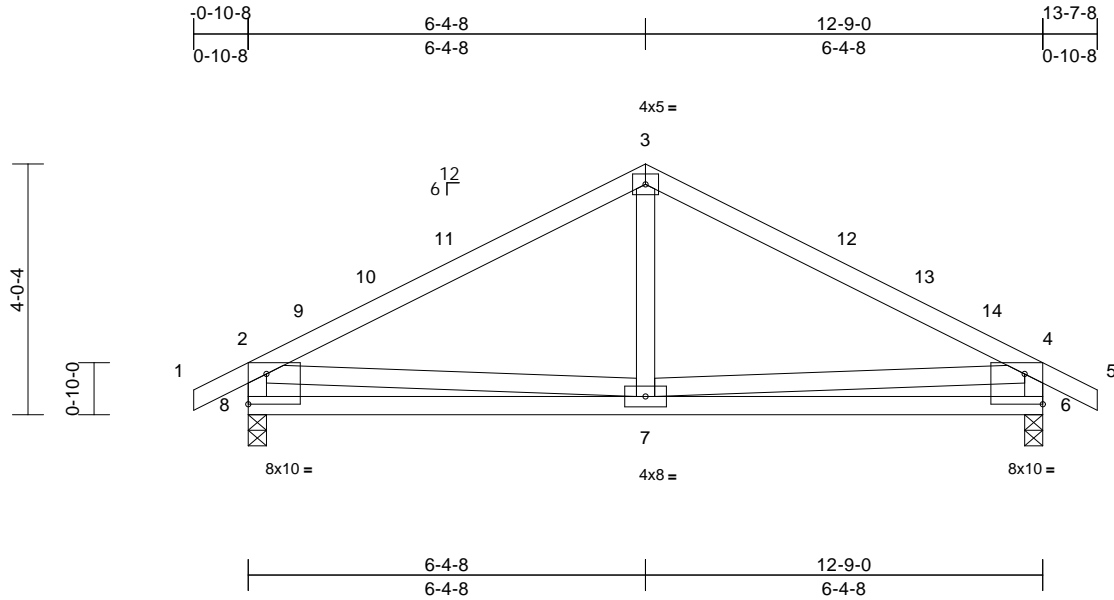
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss C02 | Truss Type Common | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356814 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

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Page: 1



Scale = 1:37

Plate Offsets (X, Y): [6:Edge,0-5-13], [8:Edge,0-5-13]

| 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 | 0.73 | Vert(LL) | -0.03 | 6-7 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.36 | Vert(CT) | -0.06 | 6-7 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.12 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 67 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 8-2,6-4:2x4 SP No.2

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) 6=0-3-8, 8=0-3-8
 Max Horiz 8=62 (LC 12)
 Max Uplift 6=-66 (LC 15), 8=-66 (LC 14)
 Max Grav 6=652 (LC 22), 8=652 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/27, 2-3=-672/208, 3-4=-672/208,
 4-5=0/27, 2-8=-598/248, 4-6=-598/248
 BOT CHORD 7-8=-173/545, 6-7=-166/545
 WEBS 3-7=0/250, 2-7=-65/296, 4-7=-65/296

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) 0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-4-8, Exterior(2R) 3-4-8 to 9-4-8, Interior (1) 9-4-8 to 10-7-8, Exterior(2E) 10-7-8 to 13-7-8 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. 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 5, 2023

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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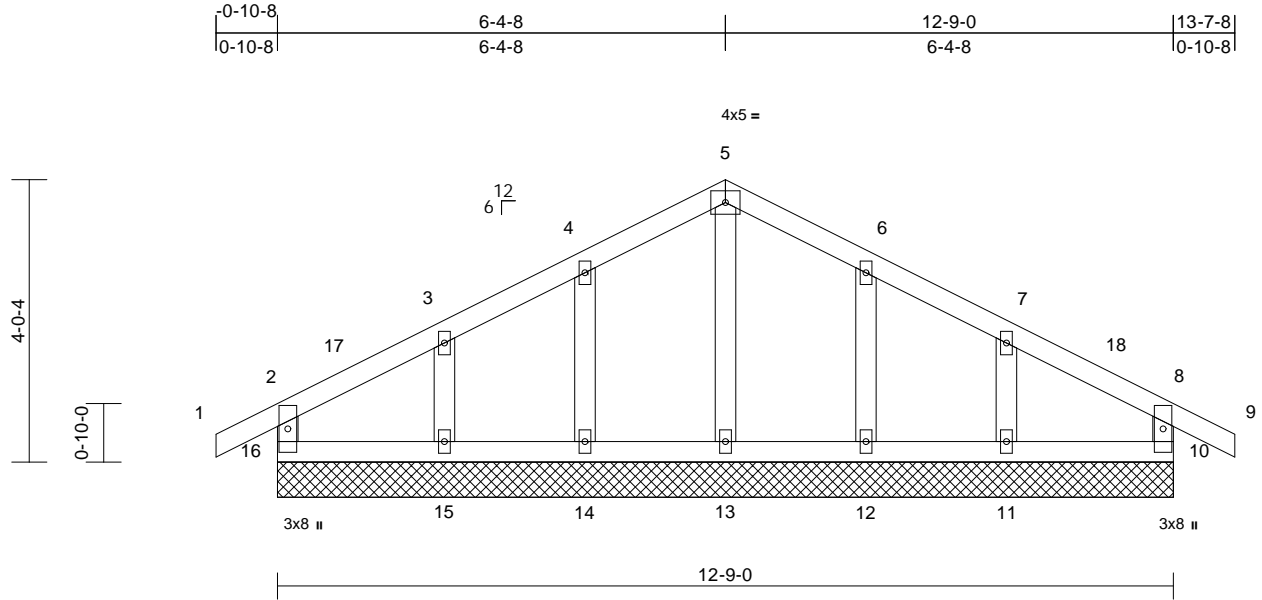
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss C01 | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356815 |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|

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

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Page: 1



Scale = 1:32.8

| 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 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 61 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 6-0-0 oc bracing.

REACTIONS (size)
10=12-9-0, 11=12-9-0, 12=12-9-0, 13=12-9-0, 14=12-9-0, 15=12-9-0, 16=12-9-0
Max Horiz 16=60 (LC 12)
Max Uplift 10=23 (LC 15), 11=56 (LC 15), 12=41 (LC 15), 14=41 (LC 14), 15=59 (LC 14), 16=24 (LC 15)
Max Grav 10=161 (LC 22), 11=233 (LC 22), 12=235 (LC 22), 13=144 (LC 22), 14=235 (LC 21), 15=233 (LC 21), 16=161 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-142/123, 1-2=0/27, 2-3=-47/48, 3-4=-57/113, 4-5=-75/172, 5-6=-75/172, 6-7=-57/113, 7-8=-44/48, 8-9=0/27, 8-10=-142/123
BOT CHORD 15-16=-19/50, 14-15=-19/50, 13-14=-19/50, 12-13=-19/50, 11-12=-19/50, 10-11=-19/50
WEBS 5-13=-104/0, 4-14=-198/109, 3-15=-188/123, 6-12=-198/109, 7-11=-188/123

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 Corner(3E) -0-10-8 to 2-4-8, Exterior(2N) 2-4-8 to 3-4-8, Corner(3R) 3-4-8 to 9-4-8, Exterior(2N) 9-4-8 to 10-4-8, Corner(3E) 10-4-8 to 13-7-8 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
- 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.
- 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 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 16, 23 lb uplift at joint 10, 41 lb uplift at joint 14, 59 lb uplift at joint 15, 41 lb uplift at joint 12 and 56 lb uplift at joint 11.

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.
LOAD CASE(S) Standard



December 5, 2023

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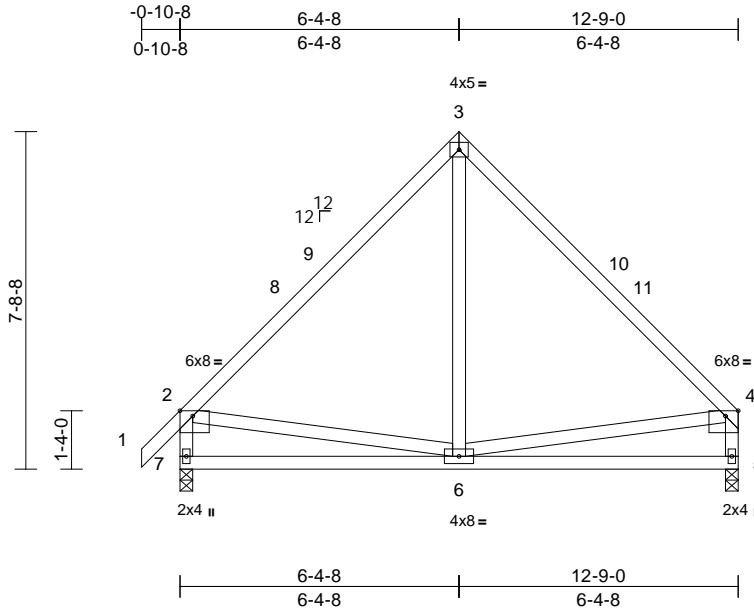
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss E02 | Truss Type Common | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | I62356816 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

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Page: 1



Scale = 1:52.6

Plate Offsets (X, Y): [2:0-3-8,Edge], [4:0-3-8,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 | 0.94 | Vert(LL) | -0.03 | 5-6 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.34 | Vert(CT) | -0.06 | 5-6 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.10 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 79 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 7-2,5-4:2x4 SP No.2

BRACING

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

REACTIONS

(size) 5=0-3-8, 7=0-3-8
 Max Horiz 7=201 (LC 11)
 Max Uplift 5=-38 (LC 14), 7=-41 (LC 14)
 Max Grav 5=577 (LC 22), 7=642 (LC 21)

FORCES

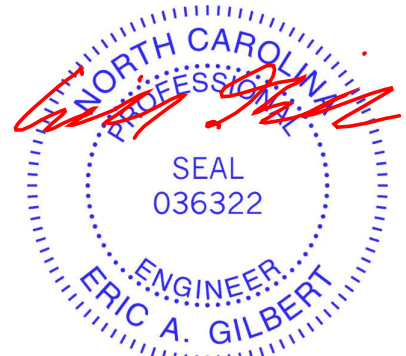
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/43, 2-3=-555/154, 3-4=-543/144,
 2-7=-586/178, 4-5=-521/136
 BOT CHORD 6-7=-264/345, 5-6=-105/196
 WEBS 3-6=0/250, 2-6=-133/282, 4-6=-81/199

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) 0-10-8 to 2-1-8, Interior (1) 2-1-8 to 3-4-8, Exterior(2R) 3-4-8 to 9-7-4, Exterior(2E) 9-7-4 to 12-7-4 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. 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 5, 2023

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818 Soundside Road
 Edenton, NC 27932

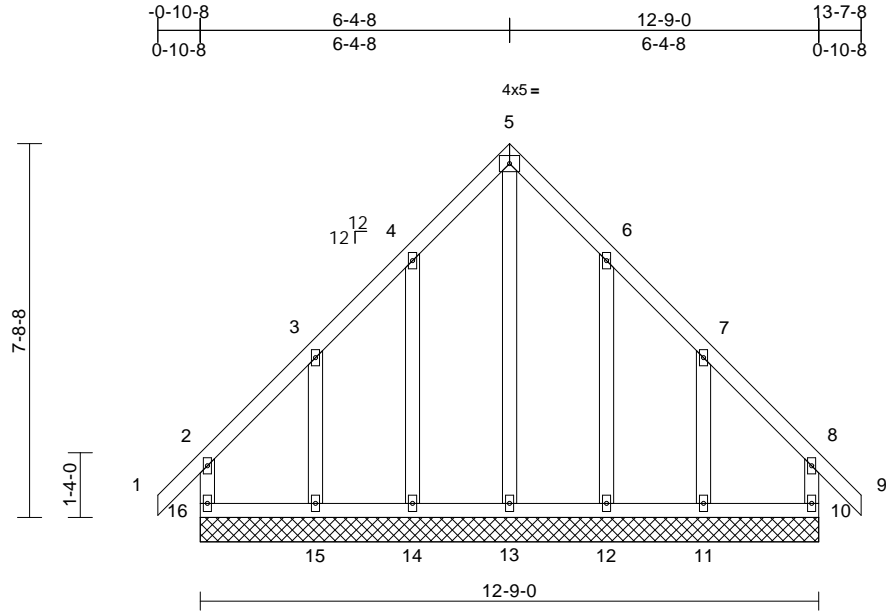
| | | | | | | |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss E03 | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356817 |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:59

Page: 1

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Scale = 1:47.5

| 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 | 0.17 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.50 | Horz(CT) | 0.00 | 10 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 88 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" oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6'-0" oc bracing.

REACTIONS (size)
10=12-9-0, 11=12-9-0, 12=12-9-0, 13=12-9-0, 14=12-9-0, 15=12-9-0, 16=12-9-0
Max Horiz 16=202 (LC 12)
Max Uplift 10=86 (LC 11), 11=159 (LC 15), 12=76 (LC 15), 14=75 (LC 14), 15=161 (LC 14), 16=96 (LC 10)
Max Grav 10=195 (LC 28), 11=238 (LC 29), 12=272 (LC 22), 13=274 (LC 15), 14=272 (LC 21), 15=242 (LC 28), 16=203 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-162/195, 1-2=0/42, 2-3=-133/133, 3-4=-128/298, 4-5=-185/412, 5-6=-185/412, 6-7=-128/298, 7-8=-122/133, 8-9=0/42, 8-10=-155/195
BOT CHORD 15-16=-98/103, 14-15=-98/103, 13-14=-98/103, 12-13=-98/103, 11-12=-98/103, 10-11=-98/103
WEBS 5-13=-493/157, 4-14=-235/138, 3-15=-169/209, 6-12=-235/138, 7-11=-167/209

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 Corner(3E) -0-10-8 to 2-4-8, Exterior(2N) 2-4-8 to 3-4-8, Corner(3R) 3-4-8 to 9-4-8, Exterior(2N) 9-4-8 to 10-4-8, Corner(3E) 10-4-8 to 13-7-8 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
- 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.
- 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 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2'-0" 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'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 96 lb uplift at joint 16, 86 lb uplift at joint 10, 75 lb uplift at joint 14, 161 lb uplift at joint 15, 76 lb uplift at joint 12 and 159 lb uplift at joint 11.

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.
LOAD CASE(S) Standard



December 5, 2023

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/TPI 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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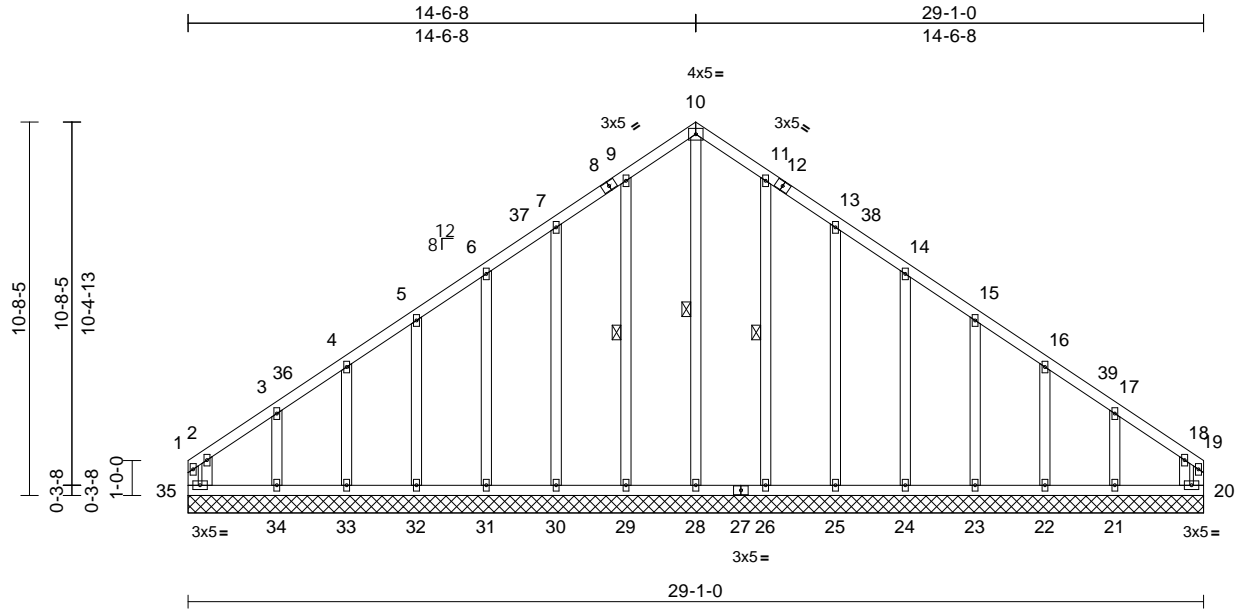
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D01 | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356818 |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:54
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Page: 1

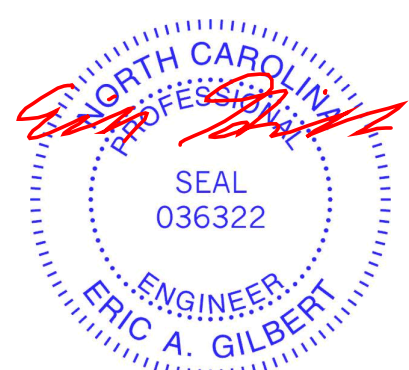


Scale = 1:66

| 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 | 0.13 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.20 | Horiz(TL) | 0.01 | 20 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 213 lb | FT = 20% |

| LUMBER | TOP CHORD | 1-35=113/109, 1-2=26/17, 2-3=192/164, 3-4=147/123, 4-5=146/135, 5-6=133/168, 6-7=145/201, 7-9=179/257, 9-10=206/304, 10-11=206/304, 11-13=179/257, 13-14=145/201, 14-15=115/148, 15-16=110/111, 16-17=118/79, 17-18=141/110, 18-19=24/17, 19-20=88/84 | 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 |
|------------|--|---|--|
| TOP CHORD | 2x4 SP No.2 | | |
| BOT CHORD | 2x4 SP No.2 | | |
| WEBS | 2x4 SP No.3 | | |
| OTHERS | 2x4 SP No.3 *Except* 28-10:2x4 SP No.2 | | |
| BRACING | TOP CHORD | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals. | 6) All plates are 2x4 MT20 unless otherwise indicated. |
| BOT CHORD | Rigid ceiling directly applied or 10-0-0 oc bracing. | | 7) Gable requires continuous bottom chord bearing. |
| WEBS | 1 Row at midpt 10-28, 9-29, 11-26 | | 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web). |
| REACTIONS | (size) | 20=29-1-0, 21=29-1-0, 22=29-1-0, 23=29-1-0, 24=29-1-0, 25=29-1-0, 26=29-1-0, 28=29-1-0, 29=29-1-0, 30=29-1-0, 31=29-1-0, 32=29-1-0, 33=29-1-0, 34=29-1-0, 35=29-1-0 | 9) Gable studs spaced at 2-0-0 oc. |
| Max Horiz | 35=244 (LC 12) | | 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads. |
| Max Uplift | 20=51 (LC 11), 21=131 (LC 15), 22=34 (LC 15), 23=62 (LC 15), 24=54 (LC 15), 25=62 (LC 15), 26=46 (LC 15), 29=47 (LC 14), 30=62 (LC 14), 31=54 (LC 14), 32=62 (LC 14), 33=30 (LC 14), 34=142 (LC 14), 35=94 (LC 10) | | 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. |
| Max Grav | 20=159 (LC 23), 21=234 (LC 28), 22=148 (LC 1), 23=168 (LC 24), 24=162 (LC 24), 25=216 (LC 21), 26=249 (LC 21), 28=256 (LC 15), 29=249 (LC 20), 30=216 (LC 20), 31=162 (LC 27), 32=170 (LC 23), 33=148 (LC 1), 34=251 (LC 23), 35=191 (LC 24) | | |

| 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 Corner(3E) 0-1-12 to 3-1-12, Exterior(2N) 3-1-12 to 11-6-8, Corner(3R) 11-6-8 to 17-6-8, Exterior (2N) 17-6-8 to 25-11-4, Corner(3E) 25-11-4 to 28-11-4 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. | |



December 5, 2023

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.
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ENGINEERING BY
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818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D01 | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | I62356818 |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|

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

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Page: 2

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 94 lb uplift at joint 35, 51 lb uplift at joint 20, 47 lb uplift at joint 29, 62 lb uplift at joint 30, 54 lb uplift at joint 31, 62 lb uplift at joint 32, 30 lb uplift at joint 33, 142 lb uplift at joint 34, 46 lb uplift at joint 26, 62 lb uplift at joint 25, 54 lb uplift at joint 24, 62 lb uplift at joint 23, 34 lb uplift at joint 22 and 131 lb uplift at joint 21.
- 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

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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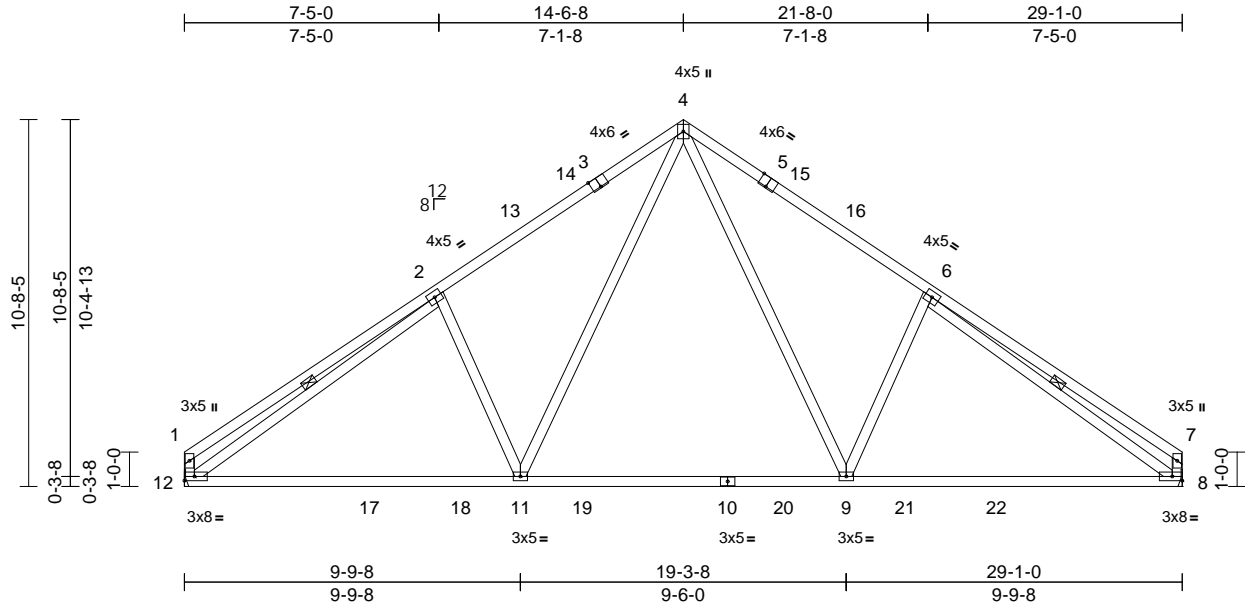
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D02 | Truss Type Common | Qty 6 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356819 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

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Page: 1



Scale = 1:67.2

Plate Offsets (X, Y): [3:0-3-0,Edge], [5:0-3-0,Edge]

| 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 | 0.83 | Vert(LL) | -0.20 | 8-9 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.78 | Vert(CT) | -0.38 | 8-9 | >915 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.54 | Horz(CT) | 0.05 | 8 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 174 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 9-4,11-4:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-12, 6-8

REACTIONS

(size) 8= Mechanical, 12= Mechanical
Max Horiz 12=244 (LC 13)
Max Uplift 8=93 (LC 15), 12=93 (LC 14)
Max Grav 8=1312 (LC 24), 12=1312 (LC 23)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-581/144, 2-4=-1580/252, 4-6=-1580/252, 6-7=-581/144, 1-12=-458/138, 7-8=-458/138
BOT CHORD 11-12=-168/1461, 9-11=0/988, 8-9=-44/1307
WEBS 4-9=-148/797, 6-9=-380/277, 4-11=-148/797, 2-11=-380/277, 2-12=-1221/64, 6-8=-1220/63

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 11-6-8, Exterior(2R) 11-6-8 to 17-6-8, Interior (1) 17-6-8 to 25-11-4, Exterior(2E) 25-11-4 to 28-11-4 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 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, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 12 and 93 lb uplift at joint 8.
- 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 5, 2023

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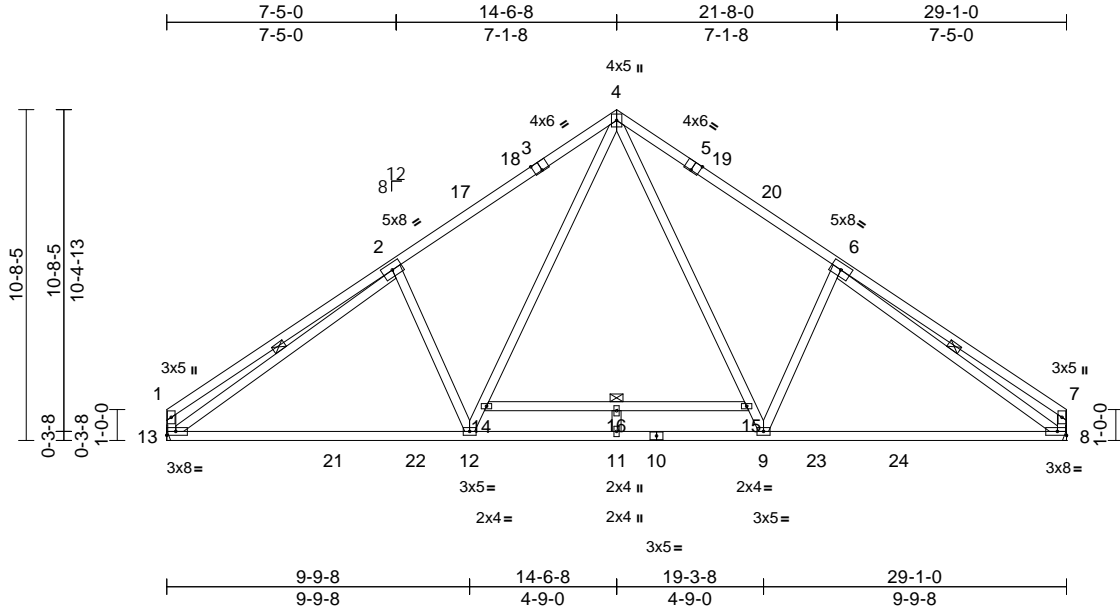
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D03 | Truss Type Common | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356820 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:55
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Page: 1



Scale = 1:74.5

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

| 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 | 0.83 | Vert(LL) | -0.29 | 8-9 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.99 | Vert(CT) | -0.50 | 8-9 | >687 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.50 | Horz(CT) | 0.05 | 8 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 188 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-4,12-4:2x4 SP No.2

BRACING

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

WEBS 1 Row at midpt 2-13, 14-15, 6-8

REACTIONS

(size) 8= Mechanical, 13= Mechanical
Max Horiz 13=244 (LC 10)
Max Uplift 8=93 (LC 15), 13=93 (LC 14)
Max Grav 8=1269 (LC 24), 13=1269 (LC 23)

FORCES

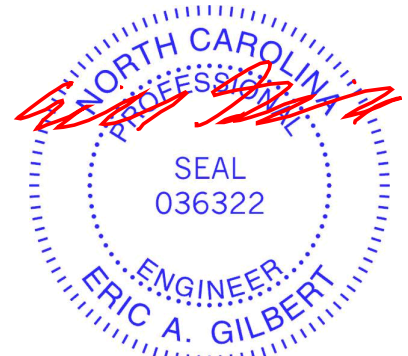
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-598/142, 2-4=-1501/252, 4-6=-1501/252, 6-7=-598/142, 1-13=-467/136, 7-8=-467/136
BOT CHORD 12-13=-169/1399, 11-12=0/969, 9-11=0/969, 8-9=-45/1244
WEBS 4-15=-149/750, 9-15=-150/733, 6-9=-380/276, 12-14=-150/734, 4-14=-149/750, 2-12=-380/276, 2-13=-1124/67, 14-16=-31/4, 15-16=-31/4, 6-8=-1124/66, 11-16=0/21

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) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 11-6-8, Exterior(2R) 11-6-8 to 17-6-8, Interior (1) 17-6-8 to 25-11-4, Exterior(2E) 25-11-4 to 28-11-4 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 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, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 13 and 93 lb uplift at joint 8.
- 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 5, 2023

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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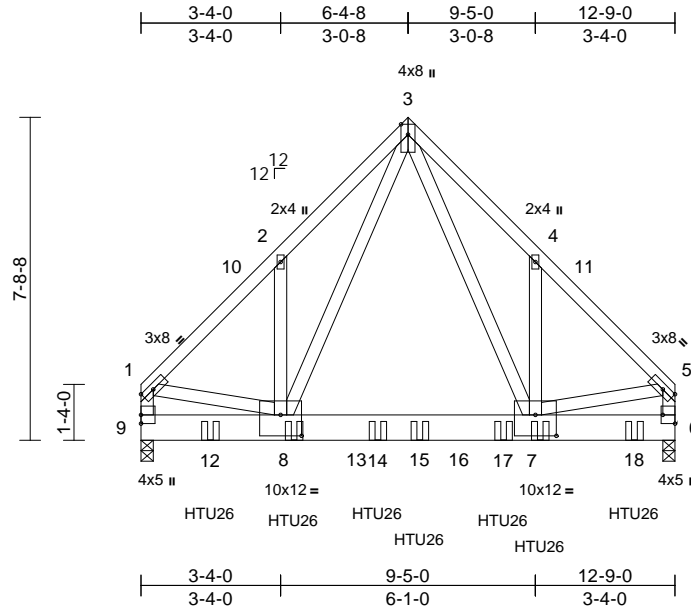
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|-----------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss E01 | Truss Type Common Girder | Qty 1 | Ply 2 | Hayes Rd A Job Reference (optional) | 162356821 |
|-----------------|--------------|-----------------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:58
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Page: 1



Scale = 1:55

Plate Offsets (X, Y): [1:0-3-7,Edge], [5:0-3-7,Edge], [6:Edge,0-3-8], [7:0-6-0,0-6-0], [8:0-6-0,0-6-0]

| 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 | 0.52 | Vert(LL) | -0.08 | 7-8 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.40 | Vert(CT) | -0.13 | 7-8 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.77 | Horz(CT) | 0.00 | 6 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 221 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP 2400F 2.0E
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-6-9 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 6=0-3-8, 9=0-3-8
Max Horiz 9=174 (LC 11)
Max Uplift 6=-422 (LC 12), 9=-380 (LC 13)
Max Grav 6=5257 (LC 21), 9=4769 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-4818/417, 2-3=-4746/539,
3-4=-4971/558, 4-5=-5047/436,
1-9=-4384/363, 5-6=-4595/380
BOT CHORD 8-9=-185/369, 7-8=-177/2117, 6-7=-49/242
WEBS 3-7=-446/3836, 4-7=-220/256,
3-8=-411/3413, 2-8=-226/253,
1-8=-224/3257, 5-7=-239/3424

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-7-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc, except member 4-7 2x4 - 1 row at 0-6-0 oc, except member 2-8 2x4 - 1 row at 0-6-0 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.

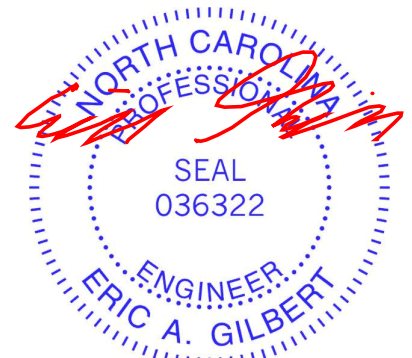
- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 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 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9 and 6. 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.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-3-0 oc max. starting at 1-7-14 from the left end to 11-9-6 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-58, 3-5=-58, 6-9=-19

Concentrated Loads (lb)

Vert: 7=-1106 (B), 8=-1106 (B), 12=-1106 (B), 14=-1106 (B), 15=-1106 (B), 17=-1106 (B), 18=-1107 (B)



December 5, 2023

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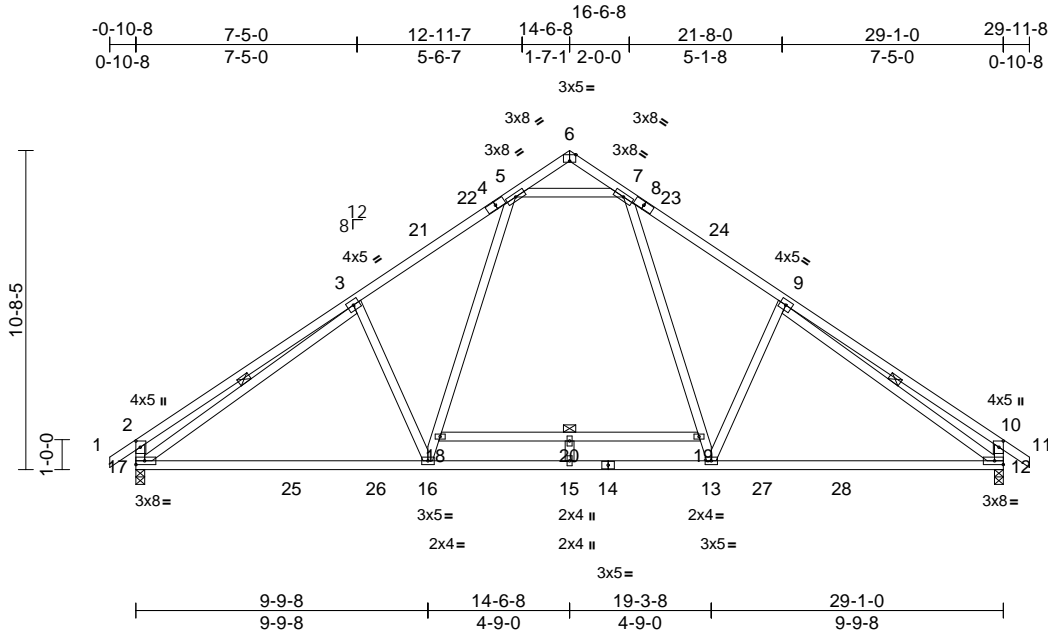
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D04 | Truss Type Common | Qty 6 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356822 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:57
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Page: 1



Scale = 1:77.3

Plate Offsets (X, Y): [2:0-2-8,0-1-12], [6:0-2-8,Edge], [10:0-2-8,0-1-12]

| 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 | 0.85 | Vert(LL) | -0.37 | 16-17 | >928 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.87 | Vert(CT) | -0.56 | 16-17 | >622 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.44 | Horz(CT) | 0.05 | 12 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 191 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-10-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 3-17, 9-12, 18-19

REACTIONS

(size) 12=0-3-8, 17=0-3-8
Max Horiz 17=268 (LC 13)
Max Uplift 12=-116 (LC 15), 17=-116 (LC 14)
Max Grav 12=1367 (LC 25), 17=1369 (LC 24)

FORCES

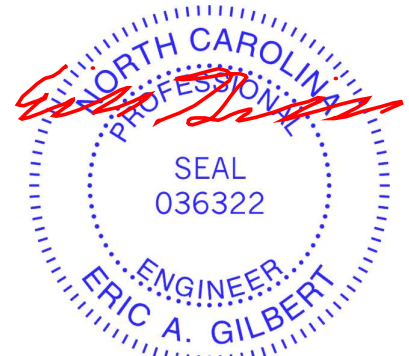
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-778/255, 3-5=-1523/234, 5-6=-133/70, 6-7=-133/70, 7-9=-1522/234, 9-10=-776/254, 10-11=0/34, 2-17=-647/230, 10-12=-646/230
BOT CHORD 16-17=-152/1430, 15-16=-3/1105, 13-15=-3/1105, 12-13=-17/1276
WEBS 7-19=-123/689, 13-19=-124/679, 9-13=-348/275, 16-18=-125/682, 5-18=-123/691, 3-16=-348/275, 3-17=-1040/5, 9-12=-1041/5, 5-7=-988/244, 18-20=-21/3, 19-20=-21/3, 15-20=0/18

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-6-8, Exterior(2R) 11-6-8 to 17-6-8, Interior (1) 17-6-8 to 26-11-8, Exterior(2E) 26-11-8 to 29-11-8 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 17 and 12. 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 5, 2023

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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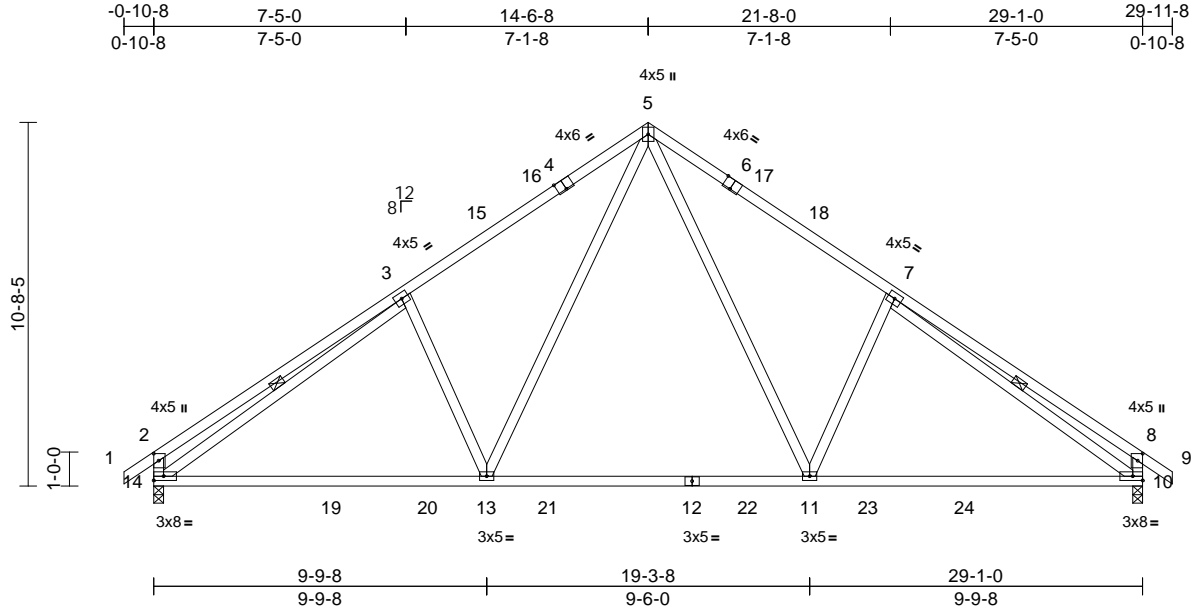
818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D05 | Truss Type Common | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356823 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:57
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Page: 1



Scale = 1:67.8

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

| 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 | 0.92 | Vert(LL) | -0.21 | 13-14 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.81 | Vert(CT) | -0.40 | 13-14 | >869 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.52 | Horz(CT) | 0.05 | 10 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 177 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3 *Except* 11-5,13-5:2x4 SP No.2

BRACING

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

REACTIONS

(size) 10=0-3-8, 14=0-3-8
Max Horiz 14=268 (LC 13)
Max Uplift 10=-116 (LC 15), 14=-116 (LC 14)
Max Grav 10=1414 (LC 25), 14=1414 (LC 24)

FORCES

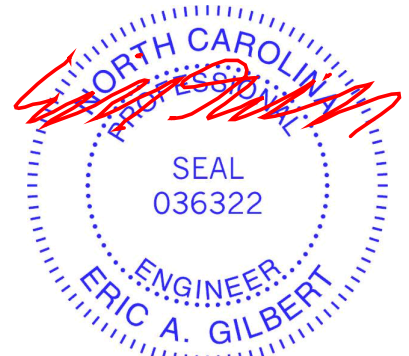
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/34, 2-3=-719/222, 3-5=-1624/257, 5-7=-1624/257, 7-8=-718/222, 8-9=0/34, 2-14=-608/208, 8-10=-608/208
BOT CHORD 13-14=-161/1509, 11-13=0/1028, 10-11=-22/1351
WEBS 5-11=-150/815, 7-11=-383/282, 5-13=-150/815, 3-13=-383/282, 3-14=-1174/25, 7-10=-1173/25

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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-6-8, Exterior(2R) 11-6-8 to 17-6-8, Interior (1) 17-6-8 to 26-11-8, Exterior(2E) 26-11-8 to 29-11-8 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 14 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.

LOAD CASE(S) Standard



December 5, 2023

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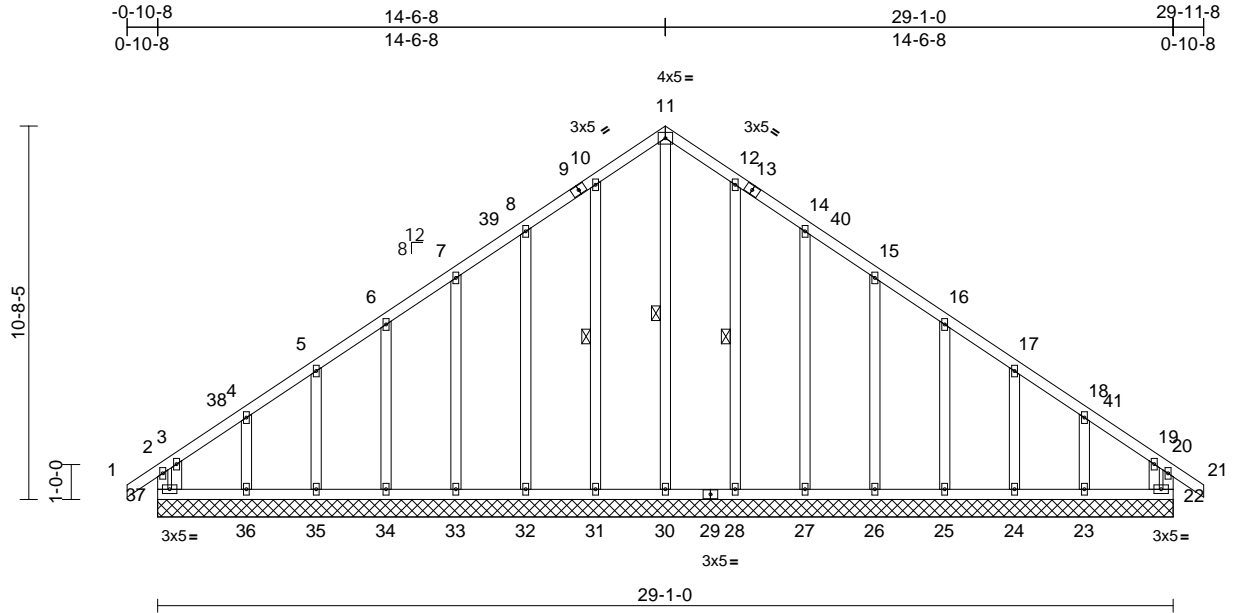
818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D06 | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356824 |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:58
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Page: 1



Scale = 1:66

| 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 | 0.14 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.07 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.20 | Horz(CT) | 0.01 | 22 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 216 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 *Except* 30-11:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 11-30, 10-31, 12-28

REACTIONS (size)
22=29-1-0, 23=29-1-0, 24=29-1-0,
25=29-1-0, 26=29-1-0, 27=29-1-0,
28=29-1-0, 30=29-1-0, 31=29-1-0,
32=29-1-0, 33=29-1-0, 34=29-1-0,
35=29-1-0, 36=29-1-0, 37=29-1-0

Max Horiz 37=260 (LC 13)
Max Uplift 22=50 (LC 11), 23=128 (LC 15),
24=35 (LC 15), 25=61 (LC 15),
26=54 (LC 15), 27=62 (LC 15),
28=46 (LC 15), 31=47 (LC 14),
32=62 (LC 14), 33=54 (LC 14),
34=62 (LC 14), 35=31 (LC 14),
36=140 (LC 14), 37=93 (LC 10)

Max Grav 22=193 (LC 24), 23=223 (LC 29),
24=151 (LC 22), 25=168 (LC 29),
26=162 (LC 29), 27=215 (LC 22),
28=249 (LC 22), 30=261 (LC 15),
31=249 (LC 21), 32=215 (LC 21),
33=162 (LC 24), 34=169 (LC 24),
35=151 (LC 21), 36=240 (LC 28),
37=227 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-37=161/144, 1-2=0/33, 2-3=27/55,
3-4=188/171, 4-5=142/128, 5-6=135/141,
6-7=117/173, 7-8=138/205, 8-10=172/261,
10-11=199/308, 11-12=199/308,
12-14=172/261, 14-15=138/204,
15-16=108/152, 16-17=92/114,
17-18=94/82, 18-19=133/113,
19-20=27/55, 20-21=0/33, 20-22=141/144

BOT CHORD 36-37=105/131, 35-36=105/131,
34-35=105/131, 33-34=105/131,
32-33=105/131, 31-32=105/131,
30-31=105/131, 28-30=105/131,
27-28=105/131, 26-27=105/131,
25-26=105/131, 24-25=105/131,
23-24=105/131, 22-23=105/131

WEBS 11-30=278/127, 10-31=211/71,
8-32=177/85, 7-33=124/78, 6-34=128/84,
5-35=115/64, 4-36=174/143,
3-37=255/212, 12-28=211/69,
14-27=177/85, 15-26=124/78,
16-25=127/83, 17-24=115/64,
18-23=162/135, 19-22=188/141

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 Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 11-6-8, Corner(3R) 11-6-8 to 17-6-8, Exterior (2N) 17-6-8 to 26-11-8, Corner(3E) 26-11-8 to 29-11-8 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
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) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



December 5, 2023

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/TPI 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)



818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss D06 | Truss Type Common Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | I62356824 |
|-----------------|--------------|--------------------------------------|----------|----------|--|-----------|

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

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Page: 2

- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 93 lb uplift at joint 37, 50 lb uplift at joint 22, 47 lb uplift at joint 31, 62 lb uplift at joint 32, 54 lb uplift at joint 33, 62 lb uplift at joint 34, 31 lb uplift at joint 35, 140 lb uplift at joint 36, 46 lb uplift at joint 28, 62 lb uplift at joint 27, 54 lb uplift at joint 26, 61 lb uplift at joint 25, 35 lb uplift at joint 24 and 128 lb uplift at joint 23.
- 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.

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.

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)



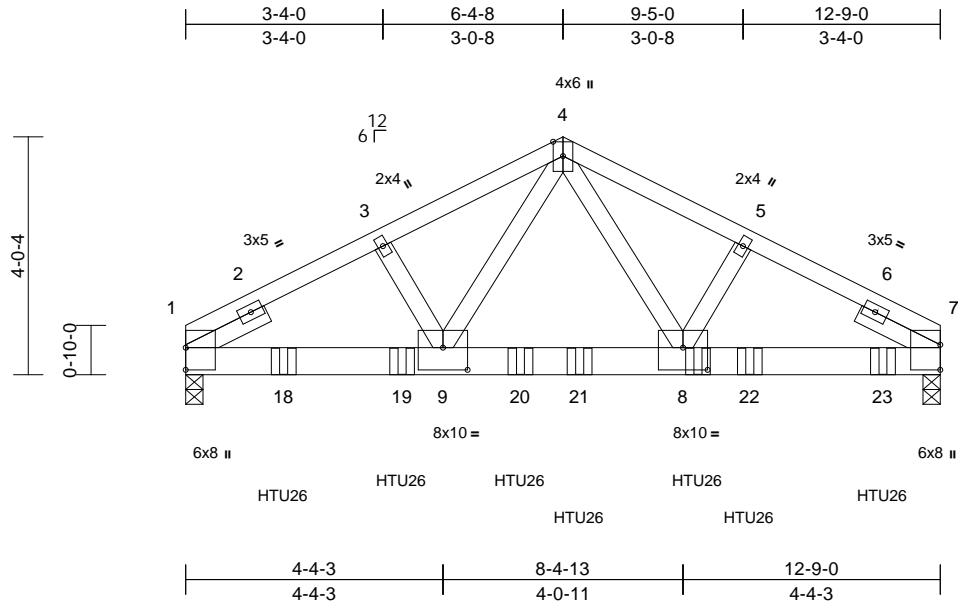
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|-----------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss C04 | Truss Type Common Girder | Qty 1 | Ply 2 | Hayes Rd A Job Reference (optional) | 162356825 |
|-----------------|--------------|-----------------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:54
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Page: 1



Scale = 1:38.9

Plate Offsets (X, Y): [8:0-5-0,0-4-8], [9:0-5-0,0-4-8]

| 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 | 0.70 | Vert(LL) | -0.09 | 8-9 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.47 | Vert(CT) | -0.16 | 8-9 | >970 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | NO | WB | 0.74 | Horz(CT) | 0.02 | 7 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 146 lb | FT = 20% |

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP 2400F 2.0E
 WEBS 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 3-8-8 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=0-3-8, 7=0-3-8
 Max Horiz 1=49 (LC 16)
 Max Uplift 1=-390 (LC 12), 7=-435 (LC 13)
 Max Grav 1=4681 (LC 21), 7=5198 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-3=-6820/583, 3-4=-6778/597, 4-5=-7076/623, 5-7=-7117/608
 BOT CHORD 1-9=-523/5994, 8-9=-357/4598, 7-8=-496/6231
 WEBS 4-8=-322/3636, 5-8=-44/312, 4-9=-276/3088, 3-9=-43/304

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-7-0 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; BCCL=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
- 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 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. 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.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 2-3-0 oc max. starting at 1-7-14 from the left end to 11-9-6 to connect truss(es) to front face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-4=-58, 4-7=-58, 10-14=-19

Concentrated Loads (lb)

Vert: 8=-1106 (F), 18=-1106 (F), 19=-1106 (F), 20=-1106 (F), 21=-1106 (F), 22=-1106 (F), 23=-1106 (F)



December 5, 2023

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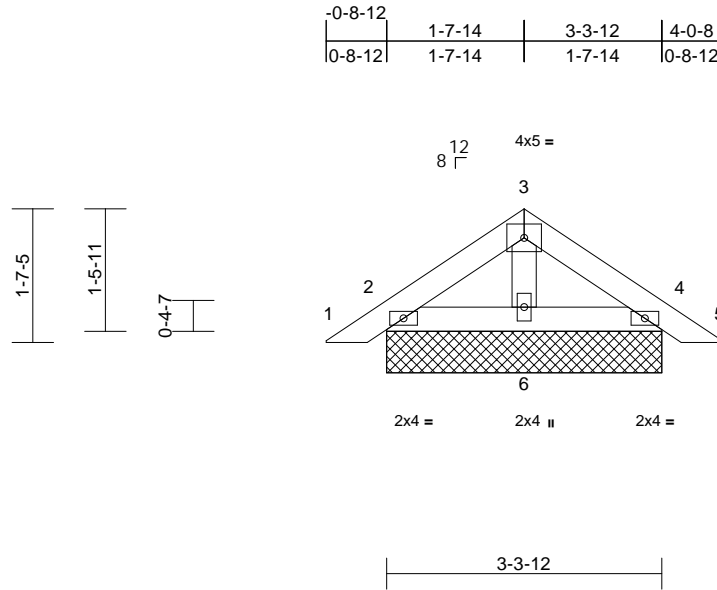
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|-----------------|----------------|-------------------------|-----------|----------|--|-----------|
| Job 24050164 | Truss PB04A | Truss Type Piggyback | Qty 10 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356826 |
|-----------------|----------------|-------------------------|-----------|----------|--|-----------|

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

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Page: 1



Scale = 1:27.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|-------------|-------|-----------------|-----------------|-----------|------|----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.03 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | Weight: 15 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 4-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=3-3-12, 4=3-3-12, 6=3-3-12, 7=3-3-12, 11=3-3-12
Max Horiz 2=33 (LC 13), 7=33 (LC 13)
Max Uplift 2=-21 (LC 14), 4=-25 (LC 15), 6=-1 (LC 14), 7=-21 (LC 14), 11=-25 (LC 15)
Max Grav 2=139 (LC 21), 4=139 (LC 22), 6=119 (LC 1), 7=139 (LC 21), 11=139 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/23, 2-3=-43/41, 3-4=-43/41, 4-5=0/23
BOT CHORD 2-6=-5/35, 4-6=-5/35
WEBS 3-6=-52/9

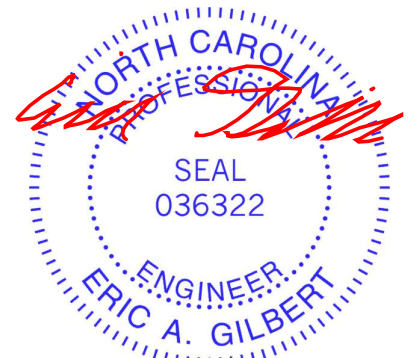
NOTES

- 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) 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.
- 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.
- 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.
- N/A

- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base studs as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



December 5, 2023

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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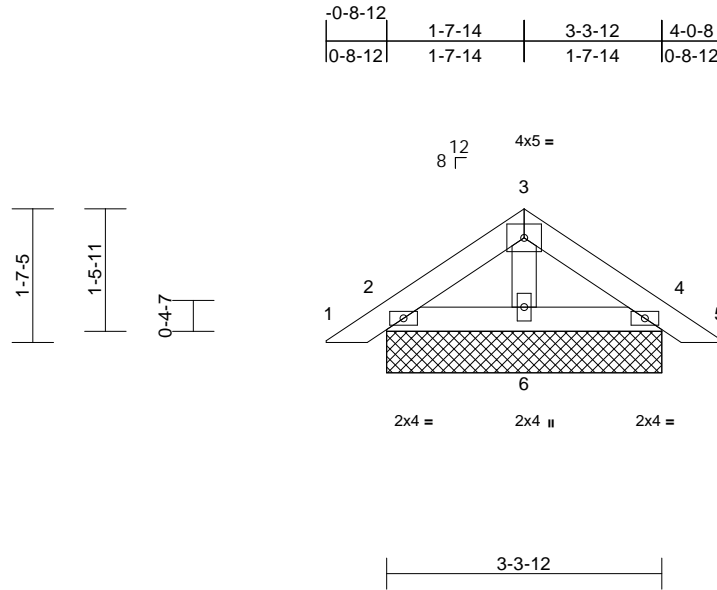
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|---------------|-------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss PB04 | Truss Type Piggyback | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356827 |
|-----------------|---------------|-------------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:59
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Page: 1



| Loading (psf) | | Spacing | | CSI | | DEFL | | | | PLATES | GRIP | | | |
|---------------|------|-----------------|-----------------|-----------|------|----------|------|-------|---|--------|------|-----|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1-11-4 | TC | 0.03 | Vert(LL) | n/a | (loc) | - | l/defl | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | Vert(CT) | n/a | | - | n/a | 999 | | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.01 | Horz(CT) | 0.00 | | 4 | n/a | n/a | | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | | Weight: 15 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 4-10-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size)
2=3-3-12, 4=3-3-12, 6=3-3-12,
7=3-3-12, 11=3-3-12
Max Horiz 2=32 (LC 13), 7=32 (LC 13)
Max Uplift 2=-20 (LC 14), 4=-25 (LC 15), 6=-1 (LC 14), 7=-20 (LC 14), 11=-25 (LC 15)
Max Grav 2=135 (LC 21), 4=135 (LC 22), 6=115 (LC 1), 7=135 (LC 21), 11=135 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-42/40, 3-4=-42/40, 4-5=0/23
BOT CHORD 2-6=-5/34, 4-6=-5/34
WEBS 3-6=-50/9

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.

- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- N/A
- 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



December 5, 2023

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/TPI 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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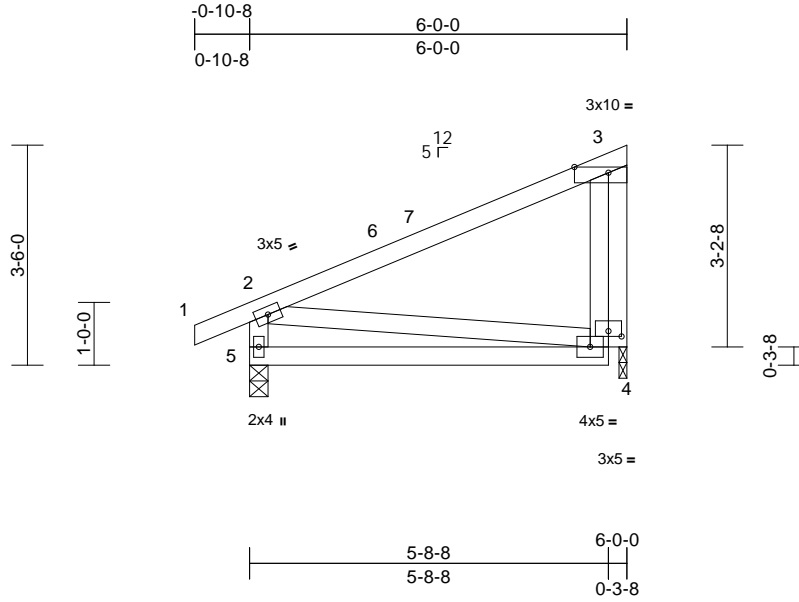
818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|-------------------------|----------|----------|--|-----------|
| Job 24050164 | Truss B01 | Truss Type Monopitch | Qty 7 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356828 |
|-----------------|--------------|-------------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:52
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Page: 1



Scale = 1:36.7
Plate Offsets (X, Y): [3:0-6-8,Edge], [4:0-2-8,0-1-0]

| 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 | 0.91 | Vert(LL) | -0.06 | 4-5 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.39 | Vert(CT) | -0.11 | 4-5 | >581 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horz(CT) | 0.00 | 4 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 37 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 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4=0-1-8, 5=0-3-8
Max Horiz 5=125 (LC 13)
Max Uplift 4=-48 (LC 14), 5=-42 (LC 14)
Max Grav 4=307 (LC 21), 5=380 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/24, 2-3=-89/77, 3-4=-251/135,
2-5=-324/181
BOT CHORD 4-5=-122/0
WEBS 2-4=-12/130

- 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) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 2-8-8, Exterior(2E) 2-8-8 to 5-8-8 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
 - 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 8) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 4. 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 5, 2023

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/TPH 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)



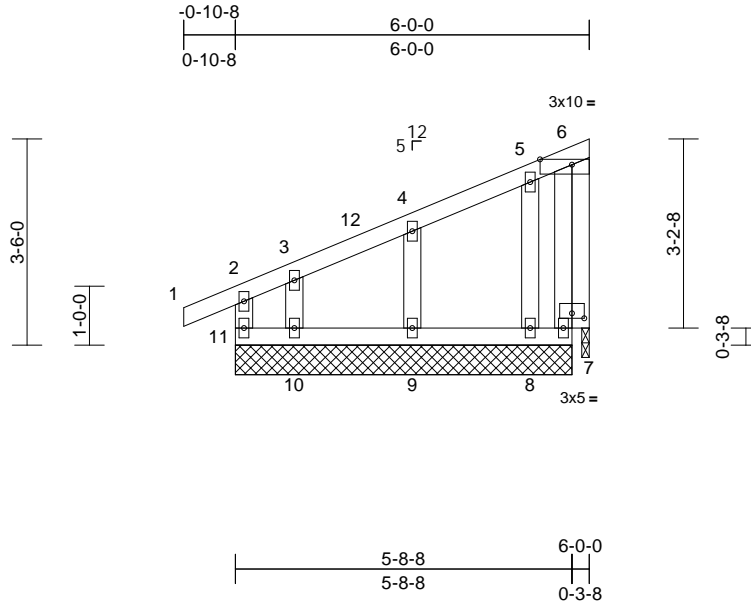
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|---|----------|----------|--|-----------|
| Job 24050164 | Truss B02 | Truss Type Monopitch Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356829 |
|-----------------|--------------|---|----------|----------|--|-----------|

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

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Page: 1



Scale = 1:39.1

Plate Offsets (X, Y): [6:0-6-8,Edge], [7:0-2-8,0-1-0]

| 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 | 0.22 | Vert(LL) | 0.00 | 10-11 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.09 | Vert(CT) | 0.00 | 9-10 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 7 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 37 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 6-0-0 oc bracing. |

REACTIONS

| | |
|------------|---|
| (size) | 7=5-8-8, 8=5-8-8, 9=5-8-8, 10=5-8-8, 11=5-8-8 |
| Max Horiz | 11=121 (LC 13) |
| Max Uplift | 7=-37 (LC 13), 8=-10 (LC 14), 9=-37 (LC 14), 10=-92 (LC 11) |
| Max Grav | 7=7 (LC 21), 8=169 (LC 21), 9=238 (LC 21), 10=136 (LC 21), 11=142 (LC 25) |

FORCES

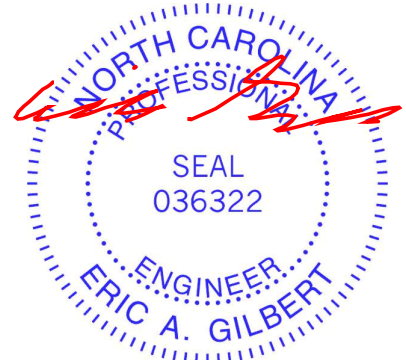
| | |
|--|---|
| (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 2-11=-109/31, 1-2=0/23, 2-3=-130/18, 3-4=-63/38, 4-5=-55/31, 5-6=-53/66, 6-7=-10/18 |
| BOT CHORD | 10-11=-50/57, 9-10=-50/57, 8-9=-50/57, 7-8=-50/57 |
| WEBS | 4-9=-196/180, 3-10=-111/171, 5-8=-134/93 |

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) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 2-8-8, Corner(3E) 2-8-8 to 5-8-8 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

- 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) All plates are 2x4 MT20 unless otherwise indicated.
- 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 8) Gable studs spaced at 2-0-0 oc.
- 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * 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.
- 11) N/A

- 12) 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 5, 2023

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)



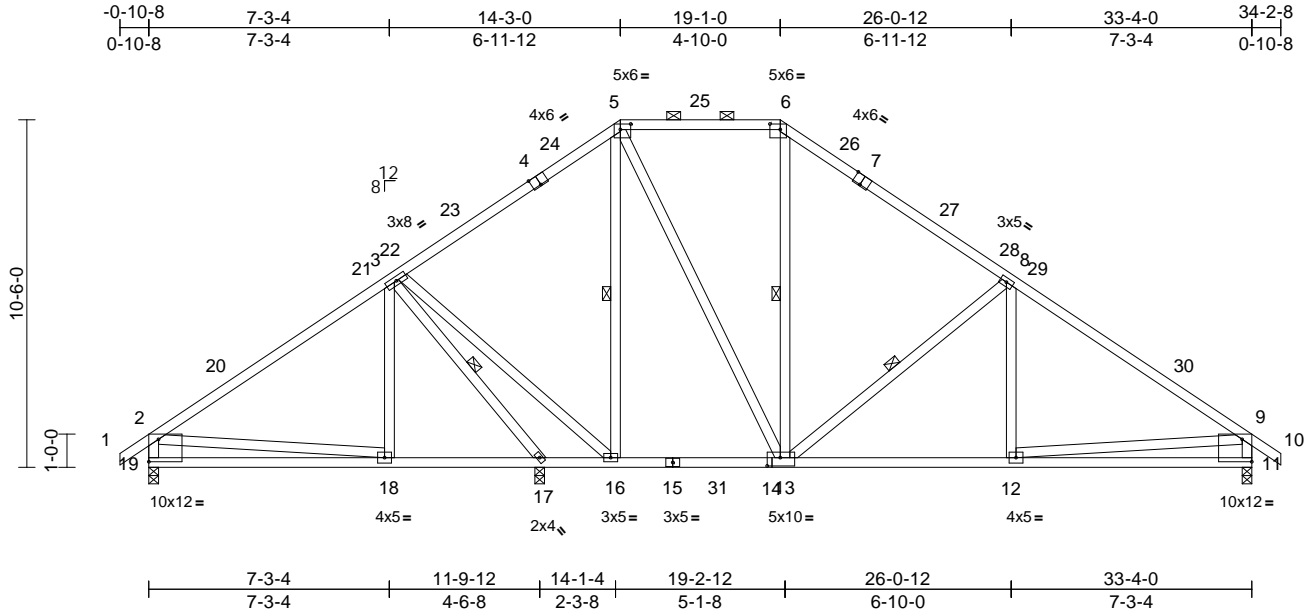
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|------------------------------|-----------|----------|--|-----------|
| Job 24050164 | Truss A02 | Truss Type Piggyback Base | Qty 10 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356830 |
|-----------------|--------------|------------------------------|-----------|----------|--|-----------|

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

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Page: 1



Scale = 1:69.6
 Plate Offsets (X, Y): [4:0-3-0,Edge], [5:0-3-12,0-2-0], [6:0-3-12,0-2-0], [7:0-3-0,Edge], [11:Edge,0-8-2], [13:0-4-12,0-3-0], [19:Edge,0-8-2]

| 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 | 0.93 | Vert(LL) | -0.07 | 18-19 | >999 | 240 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.57 | Vert(CT) | -0.14 | 18-19 | >999 | 180 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.49 | Horz(CT) | 0.03 | 11 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 230 lb | FT = 20% |

LUMBER
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 13-5:2x4 SP No.2

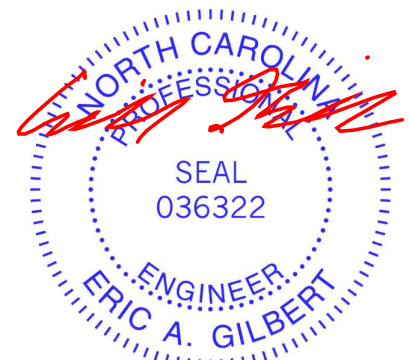
BRACING
 TOP CHORD Structural wood sheathing directly applied or 1-11-14 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 16-17.
 WEBS 1 Row at midpt 3-17, 5-16, 6-13, 8-13

REACTIONS (size)
 11=0-3-8, 17=0-3-8, 19=0-3-8
 Max Horiz 19=264 (LC 12)
 Max Uplift 11=130 (LC 15), 17=115 (LC 14), 19=66 (LC 14)
 Max Grav 11=1186 (LC 49), 17=1336 (LC 47), 19=769 (LC 47)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/34, 2-3=-814/90, 3-5=-642/177, 5-6=-649/219, 6-8=-927/194, 8-9=-1425/165, 9-10=0/34, 2-19=-676/105, 9-11=-1070/168
 BOT CHORD 18-19=-263/527, 17-18=-111/731, 16-17=-489/195, 13-16=-50/455, 12-13=-24/1091, 11-12=-120/354
 WEBS 3-18=0/245, 3-17=-1565/179, 3-16=-25/999, 5-16=-583/64, 5-13=-103/601, 6-13=-41/178, 8-13=-689/209, 8-12=0/249, 2-18=-55/405, 9-12=0/817

- 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) -0-10-8 to 2-5-8, Interior (1) 2-5-8 to 9-6-7, Exterior(2R) 9-6-7 to 23-9-9, Interior (1) 23-9-9 to 30-10-8, Exterior(2E) 30-10-8 to 34-2-8 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.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 19, 17, and 11. 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.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



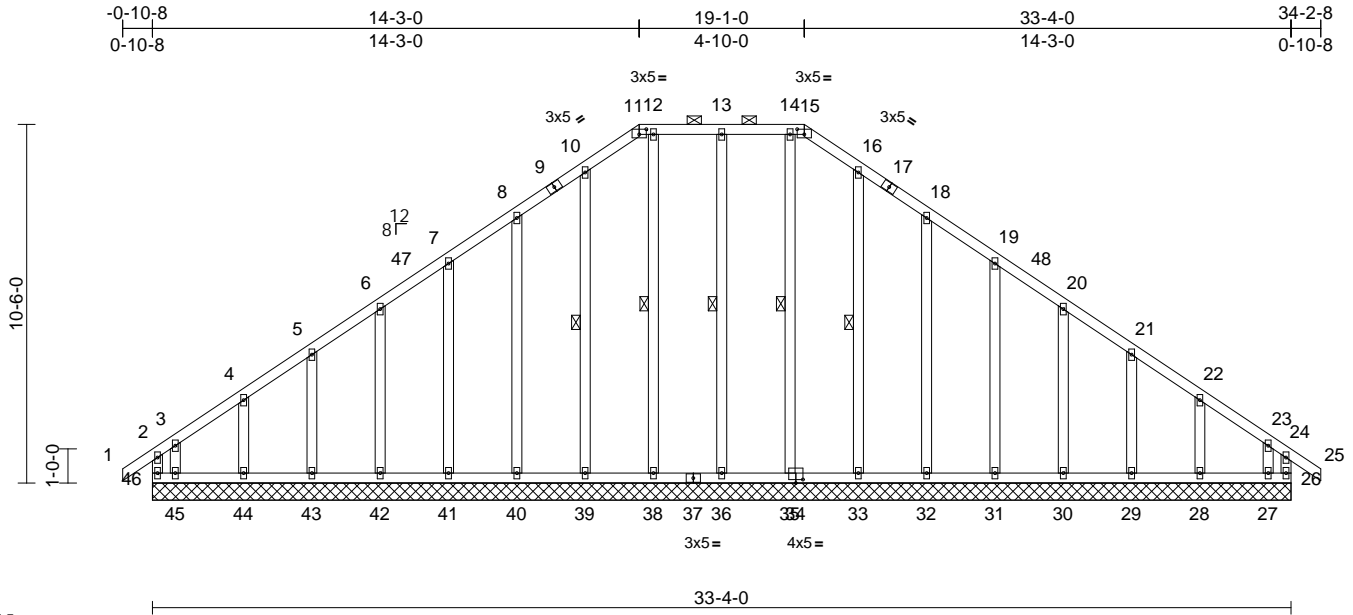
December 5, 2023

| | | | | | | |
|-----------------|--------------|--|----------|----------|--|-----------|
| Job 24050164 | Truss A01 | Truss Type Piggyback Base Supported Gable | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356831 |
|-----------------|--------------|--|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:48
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Page: 1



Scale = 1:67.5

Plate Offsets (X, Y): [11:0-2-8,0-1-13], [15:0-2-8,0-1-13], [35:0-2-8,0-1-4]

| 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 | 0.20 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.10 | Vert(CT) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.21 | Horz(CT) | 0.01 | 26 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 259 lb | FT = 20% |

| LUMBER | TOP CHORD | BOT CHORD | WEBS | OTHERS | BRACING | TOP CHORD | BOT CHORD | WEBS | REACTIONS | Max Horiz | Max Uplift | FORCES | TOP CHORD | BOT CHORD | NOTES |
|-------------|-------------|-------------|-------------|-------------|---|---|----------------|-----------------------------------|--|-----------------|--|--|---|--|--|
| 2x4 SP No.2 | 2x4 SP No.2 | 2x4 SP No.2 | 2x4 SP No.3 | 2x4 SP No.3 | Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-15. | Rigid ceiling directly applied or 6-0-0 oc bracing. | 1 Row at midpt | 13-36, 12-38, 10-39, 14-35, 16-33 | (size) 26=33-4-0, 27=33-4-0, 28=33-4-0, 29=33-4-0, 30=33-4-0, 31=33-4-0, 32=33-4-0, 33=33-4-0, 35=33-4-0, 36=33-4-0, 38=33-4-0, 39=33-4-0, 40=33-4-0, 41=33-4-0, 42=33-4-0, 43=33-4-0, 44=33-4-0, 45=33-4-0, 46=33-4-0 | 46=-256 (LC 12) | 26=-165 (LC 13), 27=-237 (LC 15), 28=-53 (LC 15), 29=-57 (LC 15), 30=-56 (LC 15), 31=-55 (LC 15), 32=-66 (LC 15), 33=-27 (LC 15), 36=-40 (LC 10), 39=-31 (LC 14), 40=-64 (LC 14), 41=-55 (LC 14), 42=-56 (LC 14), 43=-57 (LC 14), 44=-52 (LC 14), 45=-281 (LC 14), 46=-283 (LC 12) | (lb) - Maximum Compression/Maximum Tension | 2-46=-217/164, 1-2=0/33, 2-3=-247/220, 3-4=-162/159, 4-5=-141/137, 5-6=-125/133, 6-7=-119/155, 7-8=-109/186, 8-10=-143/244, 10-11=-163/277, 11-12=-142/253, 12-13=-142/253, 13-14=-142/253, 14-15=-142/253, 15-16=-163/277, 16-18=-143/244, 18-19=-109/185, 19-20=-78/132, 20-21=-70/90, 21-22=-84/77, 22-23=-111/96, 23-24=-195/135, 24-25=0/33, 24-26=-158/93 | 45-46=-107/134, 44-45=-107/134, 43-44=-107/134, 42-43=-107/134, 41-42=-107/134, 40-41=-107/134, 39-40=-107/134, 38-39=-107/134, 36-38=-107/134, 35-36=-107/134, 33-35=-107/134, 32-33=-107/134, 31-32=-107/134, 30-31=-107/134, 29-30=-107/134, 28-29=-107/134, 27-28=-107/134, 26-27=-107/134 | 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 Corner(3E) -0-10-8 to 2-8-0, Exterior(2N) 2-8-0 to 10-8-0, Corner(3R) 10-8-0 to 22-8-0, Exterior (2N) 22-8-0 to 30-8-0, Corner(3E) 30-8-0 to 34-2-8 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 5, 2023

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|----------|-------|--------------------------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Hayes Rd A | I62356831 |
| 24050164 | A01 | Piggyback Base Supported Gable | 1 | 1 | Job Reference (optional) | |

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 15:59:48
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Page: 2

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TLL: ASCE 7-16; 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) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * 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.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 283 lb uplift at joint 46, 165 lb uplift at joint 26, 40 lb uplift at joint 36, 31 lb uplift at joint 39, 64 lb uplift at joint 40, 55 lb uplift at joint 41, 56 lb uplift at joint 42, 57 lb uplift at joint 43, 52 lb uplift at joint 44, 281 lb uplift at joint 45, 27 lb uplift at joint 33, 66 lb uplift at joint 32, 55 lb uplift at joint 31, 56 lb uplift at joint 30, 57 lb uplift at joint 29, 53 lb uplift at joint 28 and 237 lb uplift at joint 27.
- 15) 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.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

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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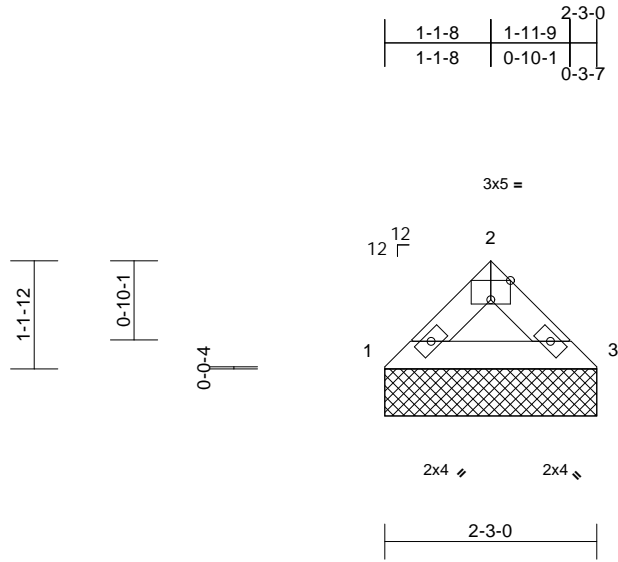
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|----------|-------|------------|-----|-----|--------------------------|-----------|
| Job | Truss | Truss Type | Qty | Ply | Hayes Rd A | 162356832 |
| 24050164 | V02 | Valley | 1 | 1 | Job Reference (optional) | |

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 16:00:00
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Page: 1



Scale = 1:24.4
 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 | 0.04 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.04 | 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: 7 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 2-3-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=2-3-0, 3=2-3-0
 Max Horiz 1=22 (LC 10)
 Max Uplift 1=-7 (LC 14), 3=-7 (LC 15)
 Max Grav 1=102 (LC 20), 3=102 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-114/59, 2-3=-114/59
 BOT CHORD 1-3=-26/76

- 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 7 lb uplift at joint 1 and 7 lb uplift at joint 3.
 - 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

- 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) 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.



December 5, 2023

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)



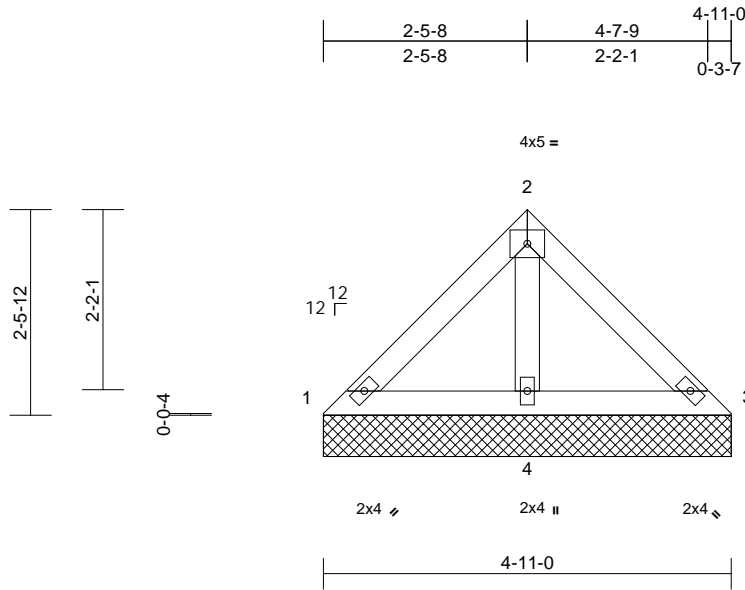
818 Soundside Road
 Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V04 | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356833 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 16:00:01
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Page: 1



Scale = 1:27.8

| 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 | 0.10 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.12 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.04 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 19 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 4-11-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=4-11-0, 3=4-11-0, 4=4-11-0
Max Horiz 1=-53 (LC 10)
Max Uplift 4=-45 (LC 14)
Max Grav 1=94 (LC 20), 3=94 (LC 21), 4=303 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-80/103, 2-3=-80/103
BOT CHORD 1-4=-83/107, 3-4=-83/107
WEBS 2-4=-187/114

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 45 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 5, 2023

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/TPI 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)



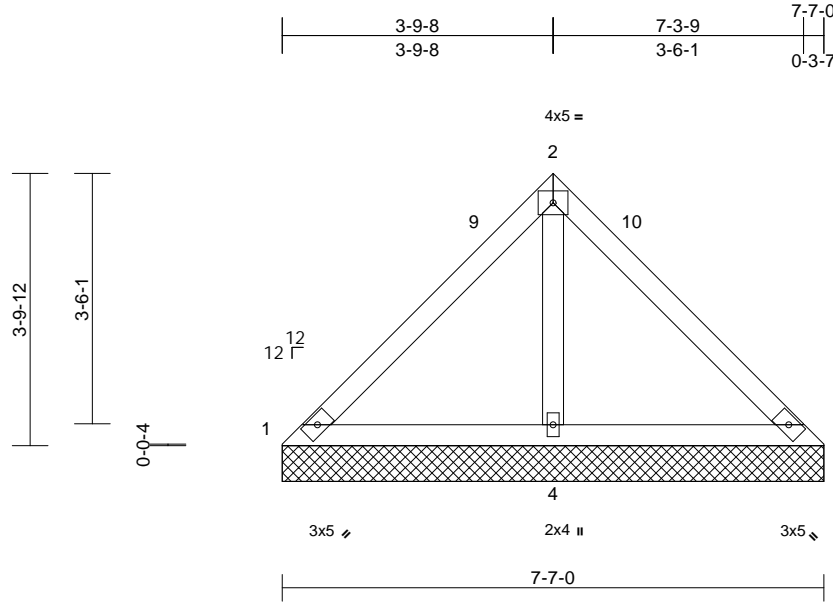
818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V07 | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356834 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

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Page: 1



Scale = 1:32.3

| 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 | 0.30 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.30 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.12 | Horiz(TL) | 0.00 | 3 | 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
OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 7-7-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=7-7-0, 3=7-7-0, 4=7-7-0
Max Horiz 1=-85 (LC 12)
Max Uplift 1=-21 (LC 21), 3=-21 (LC 20),
4=-108 (LC 14)
Max Grav 1=88 (LC 20), 3=88 (LC 21), 4=570 (LC 21)

FORCES

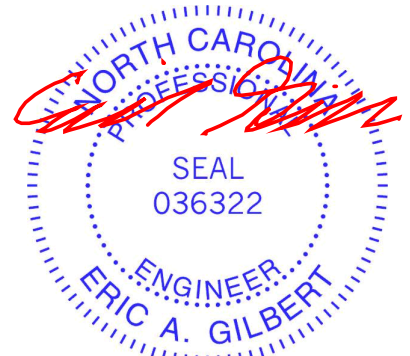
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-113/237, 2-3=-113/237
BOT CHORD 1-4=-171/184, 3-4=-171/184
WEBS 2-4=-409/255

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) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 4-7-4, Exterior(2E) 4-7-4 to 7-7-4 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 21 lb uplift at joint 1, 21 lb uplift at joint 3 and 108 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 5, 2023

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/TPI 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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TRENCO
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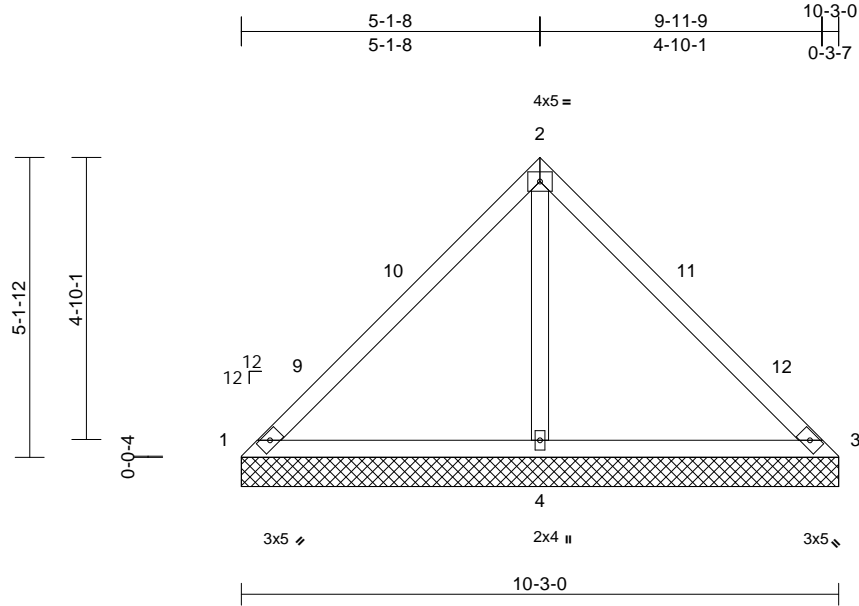
818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V10 | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356835 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

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Page: 1



Scale = 1:39.5

| 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 | 0.53 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.49 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.29 | Horiz(TL) | 0.01 | 4 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | Weight: 42 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 10-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=10-3-0, 3=10-3-0, 4=10-3-0
Max Horiz 1=-116 (LC 10)
Max Uplift 1=-54 (LC 21), 3=-54 (LC 20), 4=-163 (LC 14)
Max Grav 1=88 (LC 20), 3=88 (LC 21), 4=832 (LC 20)

FORCES

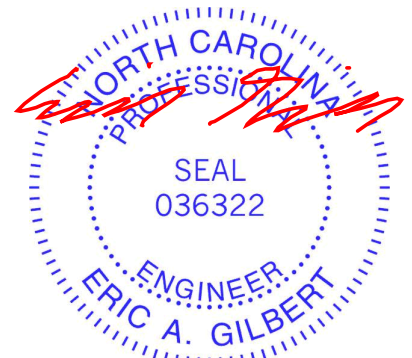
(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-170/394, 2-3=-170/394
BOT CHORD 1-4=-228/216, 3-4=-228/216
WEBS 2-4=-643/356

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) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 7-3-4, Exterior(2E) 7-3-4 to 10-3-4 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 54 lb uplift at joint 1, 54 lb uplift at joint 3 and 163 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 5, 2023

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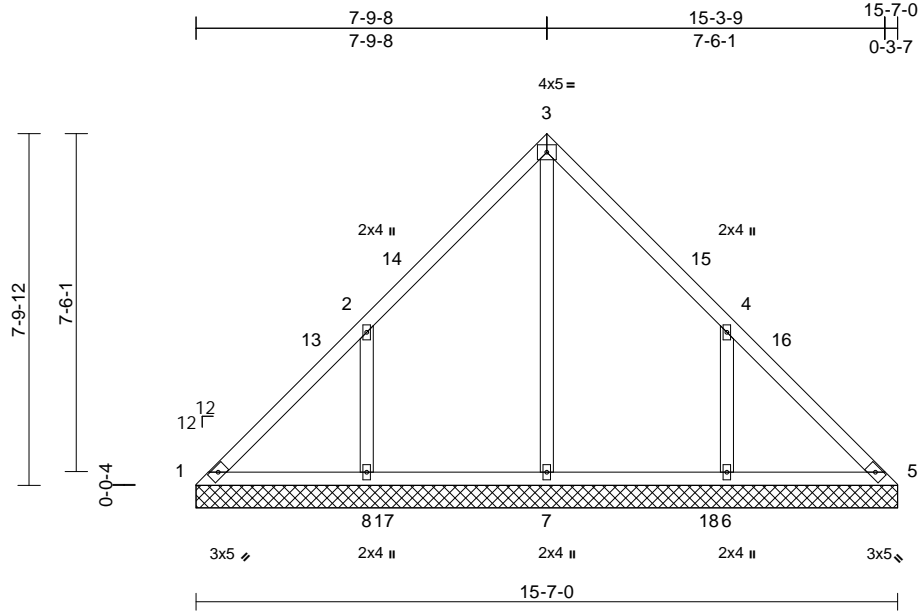
818 Soundside Road
Edenton, NC 27932

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|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V15 | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356837 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Mon Dec 04 16:00:03
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Page: 1



| Loading | (psf) | Spacing | 2-0-0 | CSI | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP | |
|-------------|-------|-----------------|-----------------|------------|------|-----------|-------|--------|-----|--------|---------------|----------|
| TCLL (roof) | 20.0 | Plate Grip DOL | 1.15 | TC | 0.33 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.17 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.26 | Horiz(TL) | 0.00 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 75 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=15-7-0, 5=15-7-0, 6=15-7-0, 7=15-7-0, 8=15-7-0 |
| Max Horiz | 1=-179 (LC 12) |
| Max Uplift | 1=-38 (LC 10), 6=-213 (LC 15), 8=-217 (LC 14) |
| Max Grav | 1=151 (LC 24), 5=124 (LC 26), 6=498 (LC 6), 7=437 (LC 23), 8=498 (LC 5) |
| FORCES (lb) - Maximum Compression/Maximum Tension | |
| TOP CHORD | 1-2=-174/200, 2-3=-186/150, 3-4=-186/125, 4-5=-152/160 |
| BOT CHORD | 1-8=-96/154, 7-8=-96/154, 6-7=-96/154, 5-6=-96/154 |
| WEBS | 3-7=-244/0, 2-8=-392/252, 4-6=-392/250 |

- 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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 4-9-12, Exterior(2R) 4-9-12 to 10-9-12, Interior (1) 10-9-12 to 12-7-4, Exterior(2E) 12-7-4 to 15-7-4 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, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1, 217 lb uplift at joint 8 and 213 lb uplift at joint 6.
- 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 5, 2023

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/TPI 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

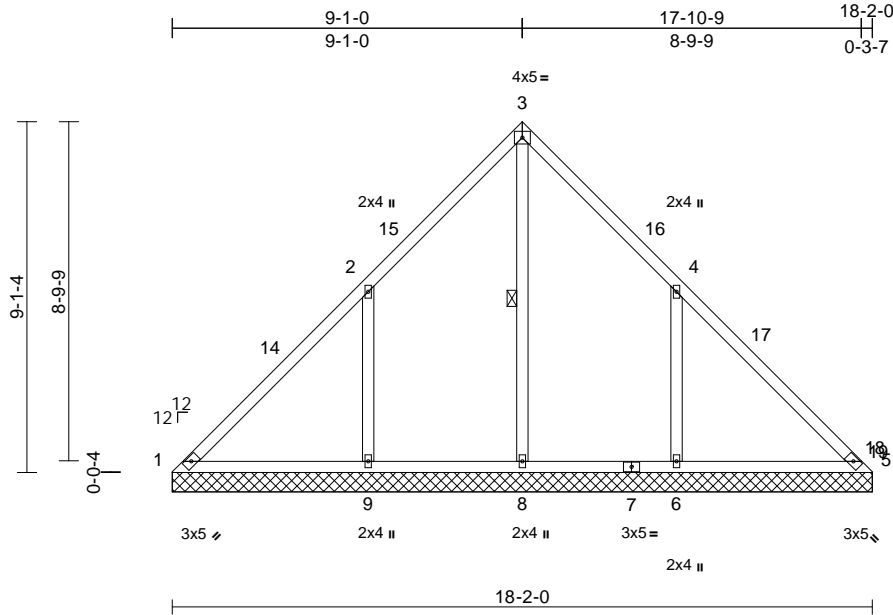
818 Soundside Road
Edenton, NC 27932

| | | | | | | |
|-----------------|--------------|----------------------|----------|----------|--|-----------|
| Job 24050164 | Truss V18 | Truss Type Valley | Qty 1 | Ply 1 | Hayes Rd A Job Reference (optional) | 162356838 |
|-----------------|--------------|----------------------|----------|----------|--|-----------|

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

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Page: 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 | 0.39 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| Snow (Pf) | 20.0 | Lumber DOL | 1.15 | BC | 0.23 | Vert(TL) | n/a | - | n/a | 999 | | |
| TCDL | 10.0 | Rep Stress Incr | YES | WB | 0.19 | Horiz(TL) | 0.01 | 5 | n/a | n/a | | |
| BCLL | 0.0* | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | | |
| BCDL | 10.0 | | | | | | | | | | | |
| | | | | | | | | | | | Weight: 90 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.

WEBS 1 Row at midpt 3-8

REACTIONS (size) 1=18-2-0, 5=18-2-0, 6=18-2-0, 8=18-2-0, 9=18-2-0
Max Horiz 1=202 (LC 11)
Max Uplift 1=-40 (LC 12), 5=-4 (LC 13), 6=-248 (LC 15), 9=-253 (LC 14)
Max Grav 1=141 (LC 25), 5=108 (LC 26), 6=574 (LC 28), 8=521 (LC 27), 9=580 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-217/323, 2-3=-109/214, 3-4=-110/196, 4-5=-177/277
BOT CHORD 1-9=-161/194, 8-9=-161/194, 6-8=-161/194, 5-6=-161/194
WEBS 3-8=-356/0, 2-9=-412/282, 4-6=-412/280

- 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 40 lb uplift at joint 1, 4 lb uplift at joint 5, 253 lb uplift at joint 9 and 248 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

- 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) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 6-1-4, Exterior(2R) 6-1-4 to 12-1-4, Interior (1) 12-1-4 to 14-10-4, Exterior(2E) 14-10-4 to 17-10-4 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



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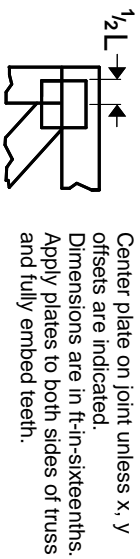
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria 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)



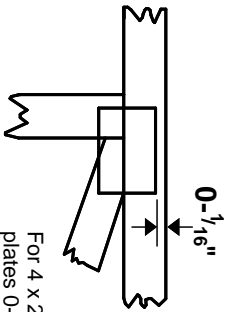
818 Soundside Road
Edenton, NC 27932

Symbols

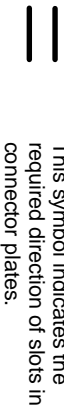
PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.



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

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

PLATE SIZE

4 X 4

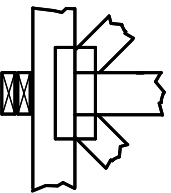
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

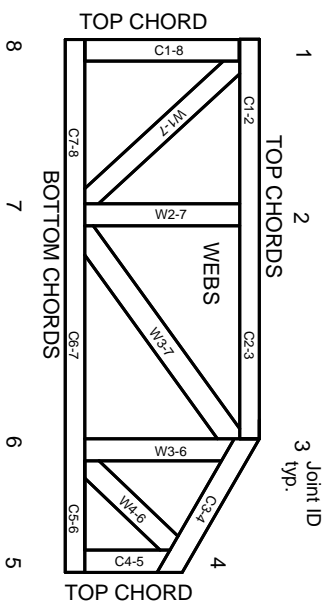


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: 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 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.

MITek

ENGINEERING BY
TRENGO
A MITek Affiliate

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