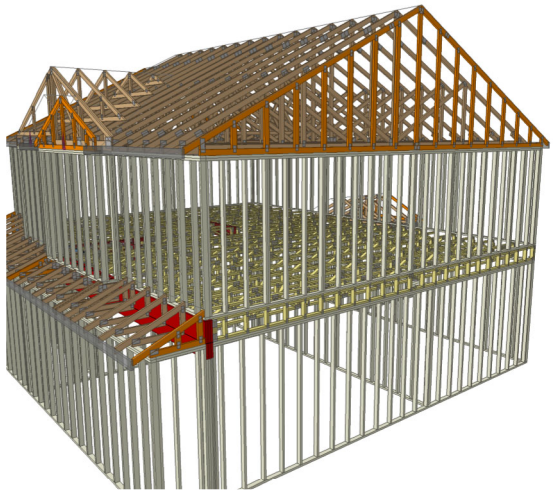
CARTER Lumber

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

Phone #:919-775-1450



**Builder:** **Glenwood Homes**

**Model:** **Forsyth 3 GRH 10x10 CP**
**Lot 4 Carolina Seasons**

THE PLACEMENT PLAN NOTES:

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

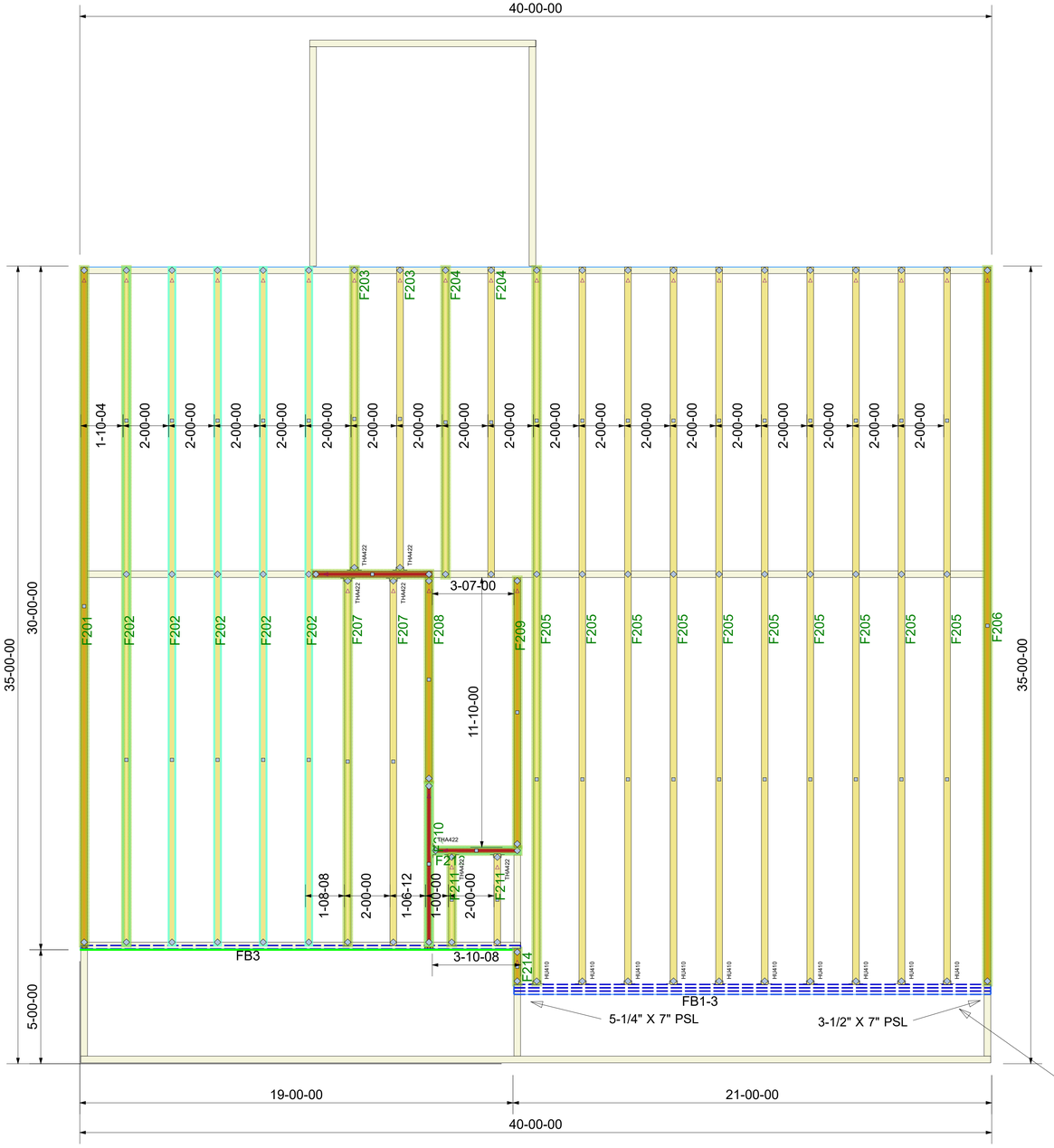
**Approved By:** _____ **Date:** _____

## 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 POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

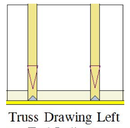
** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. ** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD BY THE COMPONENT PLANT. ** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.



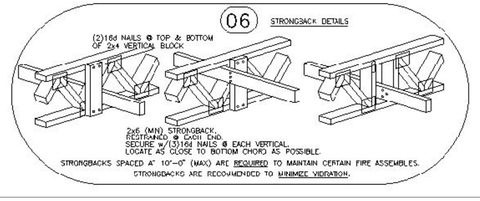

| Products | | | | | |
|---|---|---|---|---|---|
| PlotID | Length | Product | Plies | Net Qty | Fab Type |
| FB1-3 | 22-00-00 | 2.0 RigidLam DF LVL 1-3/4 x 24 | 3 | 3 | FF |
| FB3 | 20-00-00 | 2.1 RigidLam SP LVL 1-3/4 x 14 | 1 | 1 | FF |

| HANGER LIST | |
|---|---|
| HU410 | 10 |
| THA422 | 7 |

24" Beam in Lieu of 22"



Truss Drawing Left End Indicator




** 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.

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

| 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 supported structure including headers, beams and columns is the responsibility of the truss supported structure building designer. For general guidance regarding the bracing, consult "Bracing of Wood Trusses" available from the Truss Plate Institute, 583 D'Onifrio Drive; Madison, WI 53179

CARTER Lumber

Glenwood Homes

FORSYTH 3 GRH 10x10 CP

**FLOOR PLACEMENT PLAN**

Scale: *NTS*

Date: 1/16/2025

Designer: Blake Scrivner

Project Number: 25010102-A

Sheet Number: **1/1**

ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 25010102-B
Install 4 Carolina Seasons-2nd Floor-Forsyth 3 GRH 10x10 CP

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

Pages or sheets covered by this seal: I70832480 thru I70832492

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

North Carolina COA: C-0844


January 17,2025

Velez, Joaquin

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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F201 | Floor Supported Gable | 1 | 1 | I70832480 Job Reference (optional) |

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

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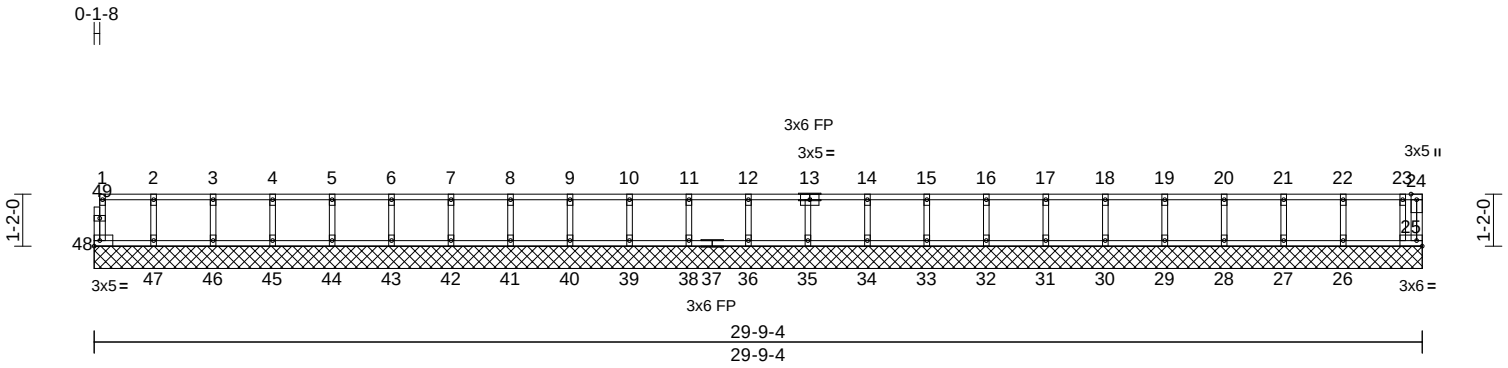



Scale = 1:51.7

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.09 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.02 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horiz(TL) | 0.00 | 25 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | Weight: 124 lb | FT = 20%F, 11%E |

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

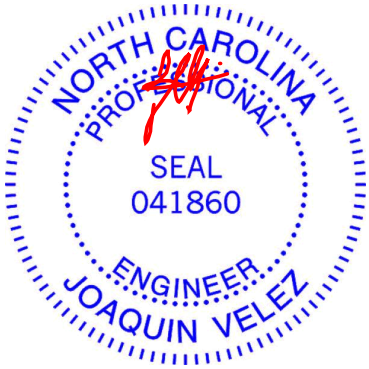
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 25=29-9-4, 26=29-9-4, 27=29-9-4, 28=29-9-4, 29=29-9-4, 30=29-9-4, 31=29-9-4, 32=29-9-4, 33=29-9-4, 34=29-9-4, 35=29-9-4, 36=29-9-4, 38=29-9-4, 39=29-9-4, 40=29-9-4, 41=29-9-4, 42=29-9-4, 43=29-9-4, 44=29-9-4, 45=29-9-4, 46=29-9-4, 47=29-9-4, 48=29-9-4
Max Grav 25=96 (LC 1), 26=160 (LC 1), 27=143 (LC 1), 28=148 (LC 1), 29=146 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=146 (LC 1), 33=148 (LC 1), 34=143 (LC 1), 35=147 (LC 1), 36=150 (LC 1), 38=146 (LC 1), 39=147 (LC 1), 40=147 (LC 1), 41=147 (LC 1), 42=147 (LC 1), 43=147 (LC 1), 44=147 (LC 1), 45=146 (LC 1), 46=149 (LC 1), 47=139 (LC 1), 48=59 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-48=-52/0, 24-25=0/5, 1-2=-12/0, 2-3=-12/0, 3-4=-12/0, 4-5=-12/0, 5-6=-12/0, 6-7=-12/0, 7-8=-12/0, 8-9=-12/0, 9-10=-12/0, 10-11=-12/0, 11-12=-12/0, 12-14=-18/0, 14-15=-18/0, 15-16=-18/0, 16-17=-18/0, 17-18=-18/0, 18-19=-18/0, 19-20=-18/0, 20-21=-18/0, 21-22=-18/0, 22-23=-18/0, 23-24=-1/0
BOT CHORD 47-48=0/12, 46-47=0/12, 45-46=0/12, 44-45=0/12, 43-44=0/12, 42-43=0/12, 41-42=0/12, 40-41=0/12, 39-40=0/12, 38-39=0/12, 36-38=0/12, 35-36=0/12, 34-35=0/18, 33-34=0/18, 32-33=0/18, 31-32=0/18, 30-31=0/18, 29-30=0/18, 28-29=0/18, 27-28=0/18, 26-27=0/18, 25-26=0/18
WEBS 2-47=-128/0, 3-46=-135/0, 4-45=-133/0, 5-44=-133/0, 6-43=-133/0, 7-42=-133/0, 8-41=-133/0, 9-40=-133/0, 10-39=-134/0, 11-38=-133/0, 12-36=-136/0, 13-35=-134/0, 14-34=-130/0, 15-33=-134/0, 16-32=-133/0, 17-31=-133/0, 18-30=-133/0, 19-29=-133/0, 20-28=-134/0, 21-27=-131/0, 22-26=-142/0, 23-25=-97/0

**NOTES**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) 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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard




January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F206 | Floor Supported Gable | 1 | 1 | I70832481 Job Reference (optional) |

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

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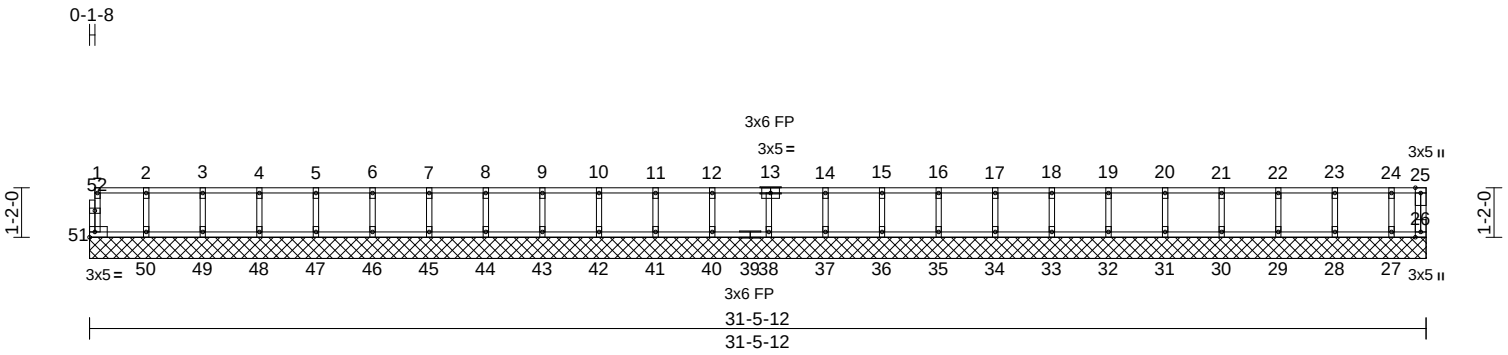



Scale = 1:54.3

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.03 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horiz(TL) | 0.00 | 26 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | Weight: 130 lb | FT = 20%F, 11%E |

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

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

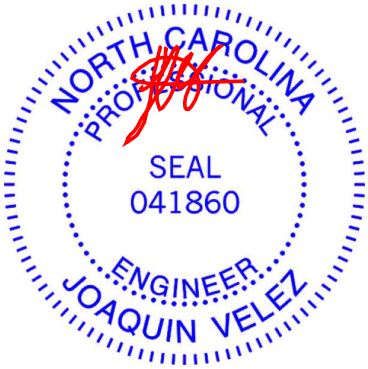
**REACTIONS** (size) 26=31-5-12, 27=31-5-12, 28=31-5-12, 29=31-5-12, 30=31-5-12, 31=31-5-12, 32=31-5-12, 33=31-5-12, 34=31-5-12, 35=31-5-12, 36=31-5-12, 37=31-5-12, 38=31-5-12, 40=31-5-12, 41=31-5-12, 42=31-5-12, 43=31-5-12, 44=31-5-12, 45=31-5-12, 46=31-5-12, 47=31-5-12, 48=31-5-12, 49=31-5-12, 50=31-5-12, 51=31-5-12
Max Grav 26=36 (LC 1), 27=108 (LC 1), 28=153 (LC 1), 29=145 (LC 1), 30=147 (LC 1), 31=147 (LC 1), 32=147 (LC 1), 33=147 (LC 1), 34=147 (LC 1), 35=146 (LC 1), 36=147 (LC 1), 37=144 (LC 1), 38=146 (LC 1), 40=150 (LC 1), 41=146 (LC 1), 42=147 (LC 1), 43=147 (LC 1), 44=147 (LC 1), 45=147 (LC 1), 46=147 (LC 1), 47=147 (LC 1), 48=147 (LC 1), 49=146 (LC 1), 50=151 (LC 1), 51=50 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-51=-47/0, 25-26=-27/0, 1-2=-4/0, 2-3=-4/0, 3-4=-4/0, 4-5=-4/0, 5-6=-4/0, 6-7=-4/0, 7-8=-4/0, 8-9=-4/0, 9-10=-4/0, 10-11=-4/0, 11-12=-4/0, 12-14=-9/0, 14-15=-9/0, 15-16=-9/0, 16-17=-9/0, 17-18=-9/0, 18-19=-9/0, 19-20=-9/0, 20-21=-9/0, 21-22=-9/0, 22-23=-9/0, 23-24=-9/0, 24-25=-9/0
BOT CHORD 50-51=0/4, 49-50=0/4, 48-49=0/4, 47-48=0/4, 46-47=0/4, 45-46=0/4, 44-45=0/4, 43-44=0/4, 42-43=0/4, 41-42=0/4, 40-41=0/4, 38-40=0/4, 37-38=0/9, 36-37=0/9, 35-36=0/9, 34-35=0/9, 33-34=0/9, 32-33=0/9, 31-32=0/9, 30-31=0/9, 29-30=0/9, 28-29=0/9, 27-28=0/9, 26-27=0/9
WEBS 2-50=-134/0, 3-49=-133/0, 4-48=-133/0, 5-47=-133/0, 6-46=-133/0, 7-45=-133/0, 8-44=-133/0, 9-43=-133/0, 10-42=-134/0, 11-41=-132/0, 12-40=-137/0, 13-38=-133/0, 14-37=-130/0, 15-36=-134/0, 16-35=-133/0, 17-34=-133/0, 18-33=-133/0, 19-32=-133/0, 20-31=-133/0, 21-30=-134/0, 22-29=-132/0, 23-28=-139/0, 24-27=-104/0

**NOTES**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) 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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard




January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F210 | Floor Girder | 1 | 1 | I70832482 Job Reference (optional) |

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

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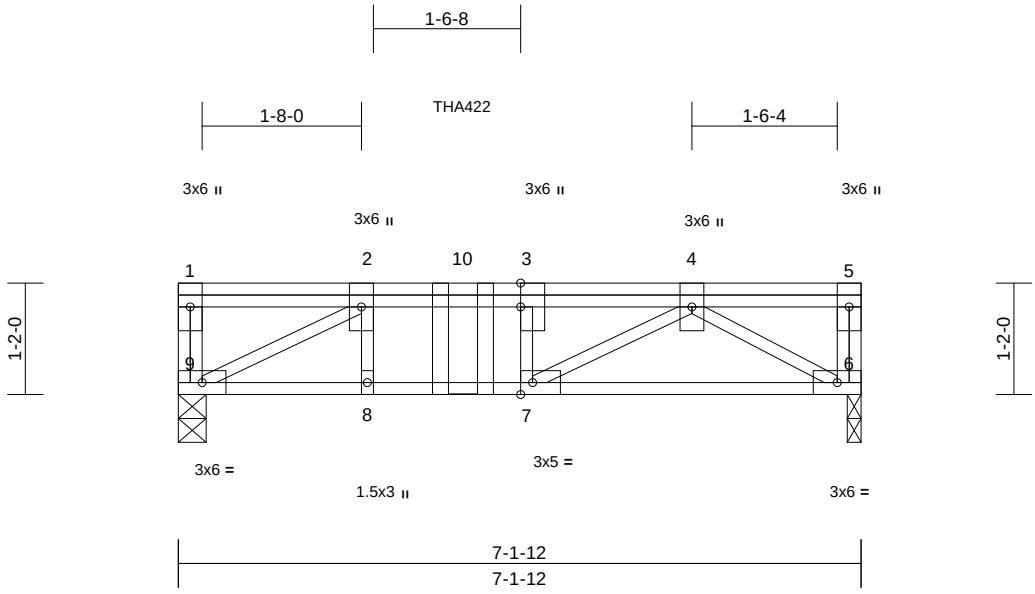



Scale = 1:24.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.35 | Vert(LL) | -0.04 | 6-7 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.43 | Vert(CT) | -0.06 | 6-7 | >999 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.27 | Horz(CT) | 0.01 | 6 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 47 lb | FT = 20%F, 11%E |

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

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

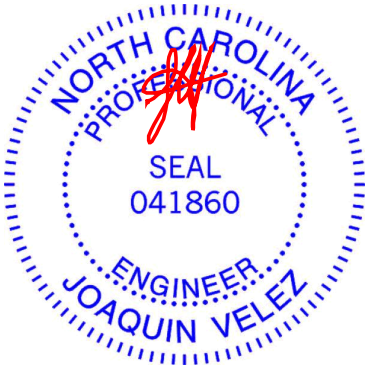
**REACTIONS** (size) 6=0-1-12, 9=0-3-8
Max Grav 6=496 (LC 4), 9=526 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-36/66, 5-6=-62/0, 1-2=0/0, 2-3=-971/0, 3-4=-971/0, 4-5=0/0
BOT CHORD 8-9=0/971, 7-8=0/971, 6-7=0/700
WEBS 2-9=-1098/0, 2-8=0/49, 4-6=-814/0, 4-7=0/470, 3-7=-211/0

**NOTES**
1) Unbalanced floor live loads have been considered for this design.
2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 6.
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.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent at 2-11-12 from the left end to connect truss(es) to back face of top chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 6-9=-10, 1-5=-100
Concentrated Loads (lb)
Vert: 10=-250 (B)




January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F212 | Floor Girder | 1 | 1 | I70832483 Job Reference (optional) |

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

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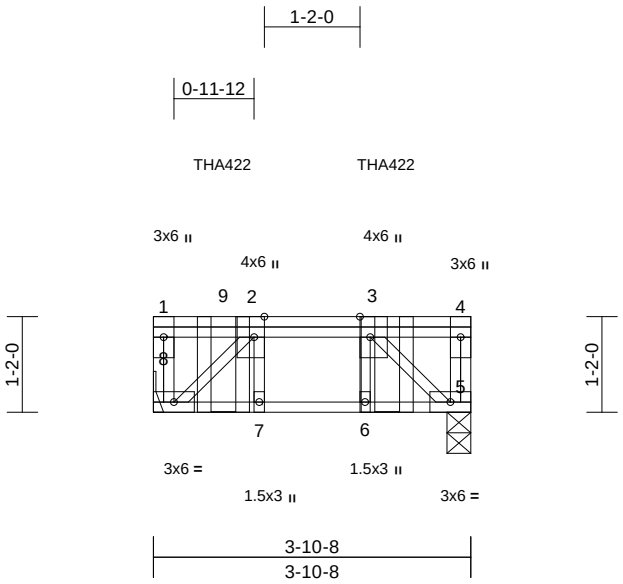


Scale = 1:28.1

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.13 | Vert(LL) | 0.00 | 6 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.13 | Vert(CT) | -0.01 | 6 | >999 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.08 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 28 lb | FT = 20%F, 11%E |

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

**BRACING**
TOP CHORD Structural wood sheathing directly applied or 3-10-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 5=0-3-8, 8= Mechanical
Max Grav 5=327 (LC 4), 8=350 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-121/17, 4-5=-78/21, 1-2=0/0, 2-3=-275/0, 3-4=0/0
BOT CHORD 7-8=0/274, 6-7=0/275, 5-6=0/274
WEBS 2-8=-370/0, 3-5=-370/0, 2-7=-7/33, 3-6=-8/32

**NOTES**
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
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.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 0-10-4 from the left end to 2-10-4 to connect truss(es) to front face of top chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00

Uniform Loads (lb/ft)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 3=-113 (F), 9=-121 (F)

NORTH CAROLINA PROFESSIONAL SEAL 041860 ENGINEER JOAQUIN VELEZ

January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F214 | Floor Supported Gable | 1 | 1 | I70832484 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25 Page: 1
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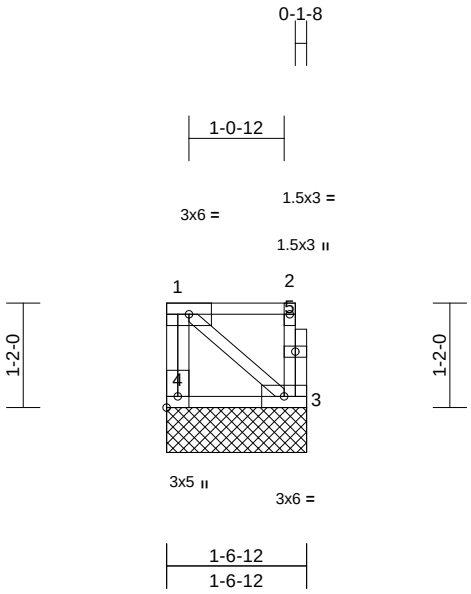



Scale = 1:25.7

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.11 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.01 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.00 | Horiz(TL) | 0.00 | 3 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MP | | | | | | | Weight: 12 lb | FT = 20%F, 11%E |

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

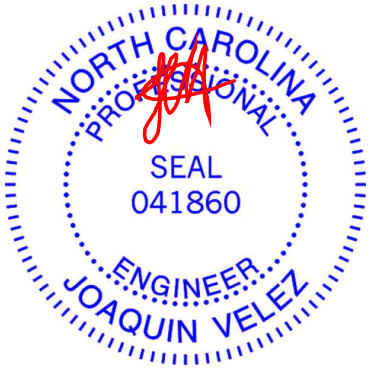
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 1-6-12 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 3=1-6-12, 4=1-6-12
Max Grav 3=66 (LC 1), 4=72 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-4=-65/0, 2-3=-63/0, 1-2=-4/0
BOT CHORD 3-4=0/0
WEBS 1-3=0/5

**NOTES**
1) Gable requires continuous bottom chord bearing.
2) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
3) Gable studs spaced at 1-4-0 oc.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard




January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F209 | Floor Supported Gable | 1 | 1 | I70832485 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25 Page: 1
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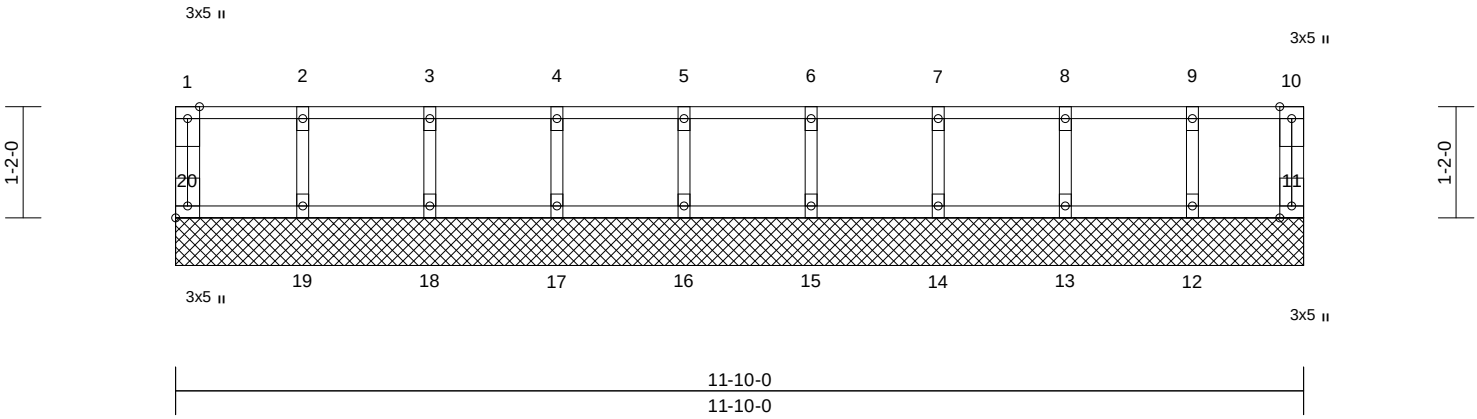


Scale = 1:24.2

Plate Offsets (X, Y): [20:Edge,0-1-8]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.01 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horiz(TL) | 0.00 | 11 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | Weight: 52 lb | FT = 20%F, 11%E |

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

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

**REACTIONS** (size) 11=11-10-0, 12=11-10-0, 13=11-10-0, 14=11-10-0, 15=11-10-0, 16=11-10-0, 17=11-10-0, 18=11-10-0, 19=11-10-0, 20=11-10-0
Max Grav 11=53 (LC 1), 12=132 (LC 1), 13=150 (LC 1), 14=146 (LC 1), 15=147 (LC 1), 16=147 (LC 1), 17=147 (LC 1), 18=147 (LC 1), 19=145 (LC 1), 20=61 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-56/0, 10-11=-47/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0, 7-8=-9/0, 8-9=-9/0, 9-10=-9/0
BOT CHORD 19-20=0/9, 18-19=0/9, 17-18=0/9, 16-17=0/9, 15-16=0/9, 14-15=0/9, 13-14=0/9, 12-13=0/9, 11-12=0/9
WEBS 2-19=-131/0, 3-18=-134/0, 4-17=-133/0, 5-16=-133/0, 6-15=-134/0, 7-14=-133/0, 8-13=-136/0, 9-12=-121/0

**NOTES**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) 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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard

NORTH CAROLINA PROFESSIONAL SEAL 041860 ENGINEER JOAQUIN VELEZ

January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F208 | Floor Supported Gable | 1 | 1 | I70832486 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25 Page: 1
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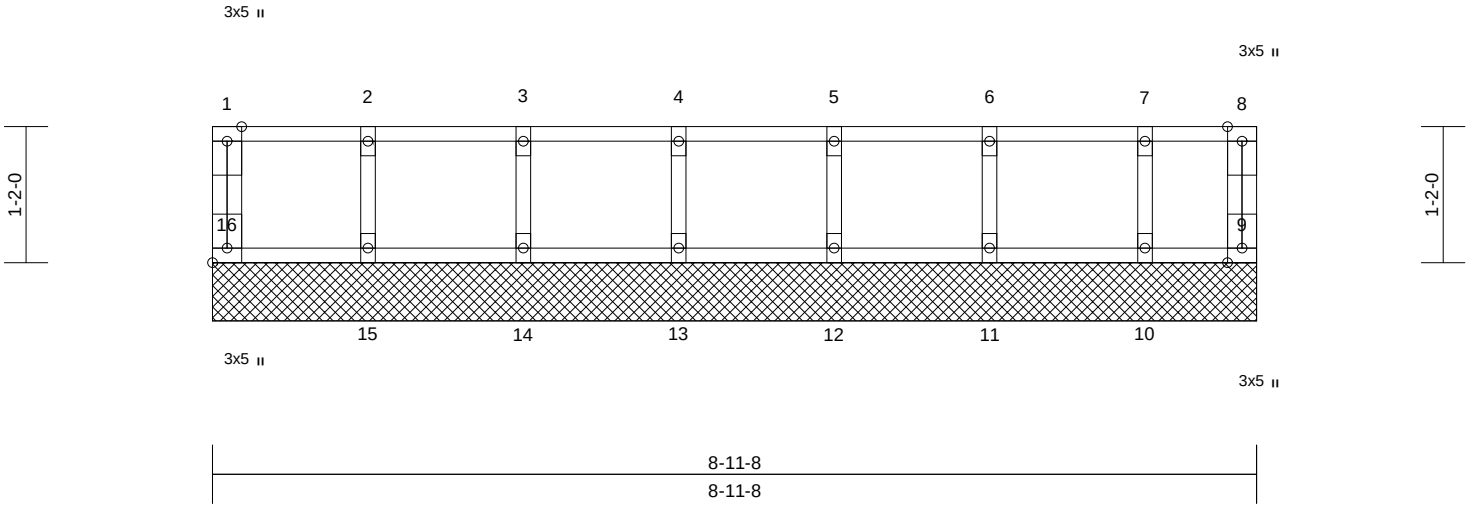



Scale = 1:19.8

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.08 | Vert(LL) | n/a | - | n/a | 999 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.02 | Vert(TL) | n/a | - | n/a | 999 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.03 | Horiz(TL) | 0.00 | 9 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MR | | | | | | | Weight: 40 lb | FT = 20%F, 11%E |

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

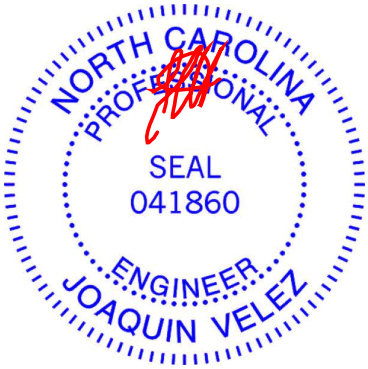
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 9=8-11-8, 10=8-11-8, 11=8-11-8, 12=8-11-8, 13=8-11-8, 14=8-11-8, 15=8-11-8, 16=8-11-8
Max Grav 9=41 (LC 1), 10=120 (LC 1), 11=152 (LC 1), 12=145 (LC 1), 13=147 (LC 1), 14=147 (LC 1), 15=147 (LC 1), 16=60 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-16=-55/0, 8-9=-34/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0
BOT CHORD 15-16=0/7, 14-15=0/7, 13-14=0/7, 12-13=0/7, 11-12=0/7, 10-11=0/7, 9-10=0/7
WEBS 2-15=-132/0, 3-14=-134/0, 4-13=-134/0, 5-12=-132/0, 6-11=-138/0, 7-10=-112/0

**NOTES**
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) 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.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard




January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F1001 | Floor Girder | 1 | 1 | I70832487 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25

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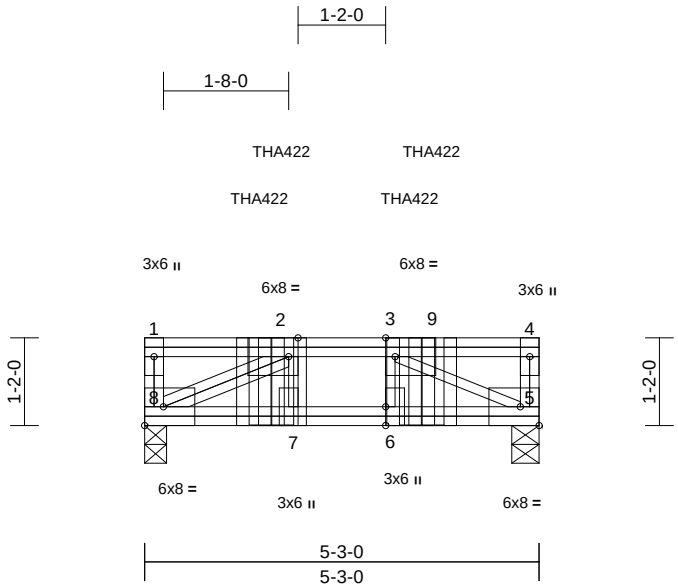


Scale = 1:30.7

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.68 | Vert(LL) | -0.03 | 5-6 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.73 | Vert(CT) | -0.04 | 5-6 | >999 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | NO | WB | 0.76 | Horz(CT) | 0.01 | 5 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 45 lb | FT = 20%F, 11%E |

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 5-3-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 5=0-4-6, 8=0-3-8
Max Grav 5=1692 (LC 1), 8=1646 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-174/11, 4-5=-298/0, 1-2=0/0, 2-3=-2819/0, 3-4=0/0
BOT CHORD 7-8=0/2808, 6-7=0/2819, 5-6=0/2819
WEBS 3-5=-3144/0, 2-8=-3197/0, 2-7=-307/259, 3-6=-271/294

**NOTES**

1) Unbalanced floor live loads have been considered for this design.
2) 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.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-6-8 from the left end to 3-6-8 to connect truss(es) to front face of top chord.
5) Use Simpson Strong-Tie THA422 (6-16d Girder, 6-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-10-0 from the left end to 3-10-0 to connect truss(es) to back face of top chord.
6) Fill all nail holes where hanger is in contact with lumber.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 5-8=-10, 1-4=-100
Concentrated Loads (lb)
Vert: 3=-774 (F), 2=-1394 (F=-774, B=-620), 9=-620 (B)


January 17,2025



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

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F203 | Floor | 2 | 1 | I70832488 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25 Page: 1
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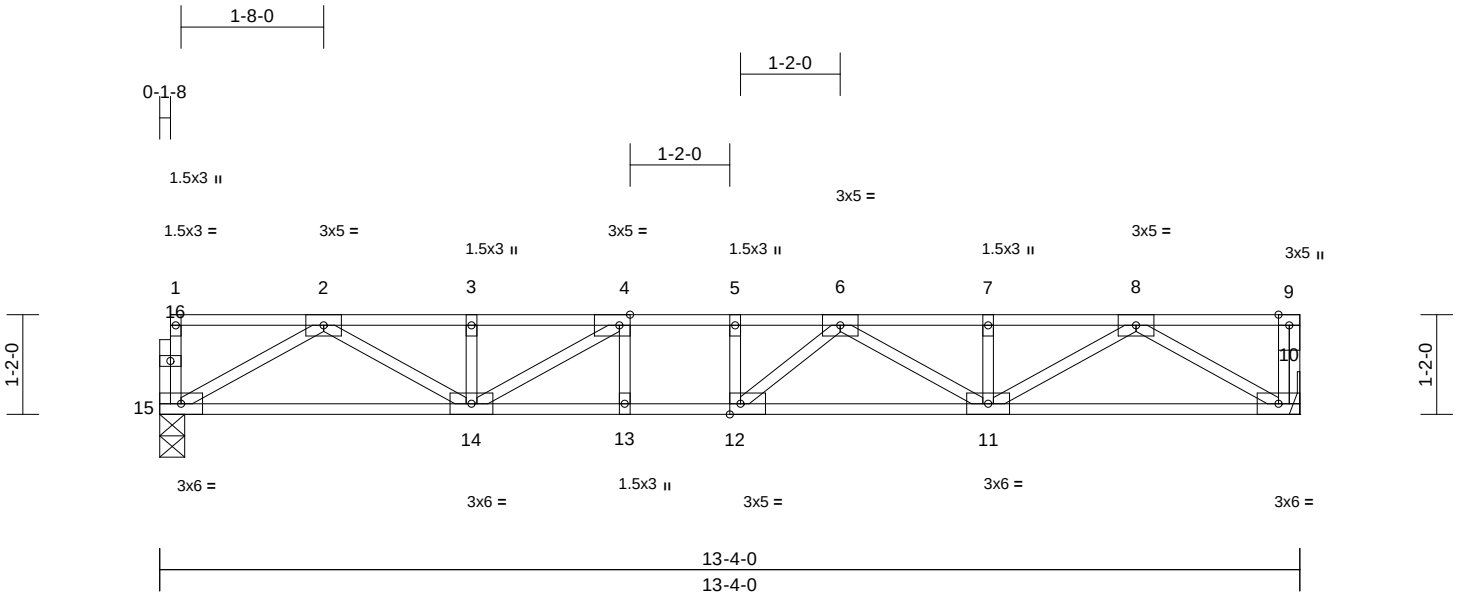



Scale = 1:26.9

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.38 | Vert(LL) | -0.12 | 11-12 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.71 | Vert(CT) | -0.16 | 11-12 | >960 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.40 | Horz(CT) | 0.03 | 10 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 69 lb | FT = 20%F, 11%E |

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

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

**REACTIONS** (size) 10= Mechanical, 15=0-3-8
Max Grav 10=720 (LC 1), 15=713 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-15=-71/0, 9-10=-73/0, 1-2=-4/0, 2-3=-1795/0, 3-4=-1795/0, 4-5=-2224/0, 5-6=-2224/0, 6-7=-1803/0, 7-8=-1803/0, 8-9=0/0
BOT CHORD 14-15=0/1082, 13-14=0/2224, 12-13=0/2224, 11-12=0/2175, 10-11=0/1086
WEBS 8-10=-1257/0, 2-15=-1247/0, 8-11=0/837, 2-14=0/832, 7-11=-164/0, 3-14=-195/18, 6-11=-434/0, 4-14=-620/0, 6-12=-139/305, 4-13=-41/99, 5-12=-136/32

**NOTES**
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
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.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard


January 17,2025



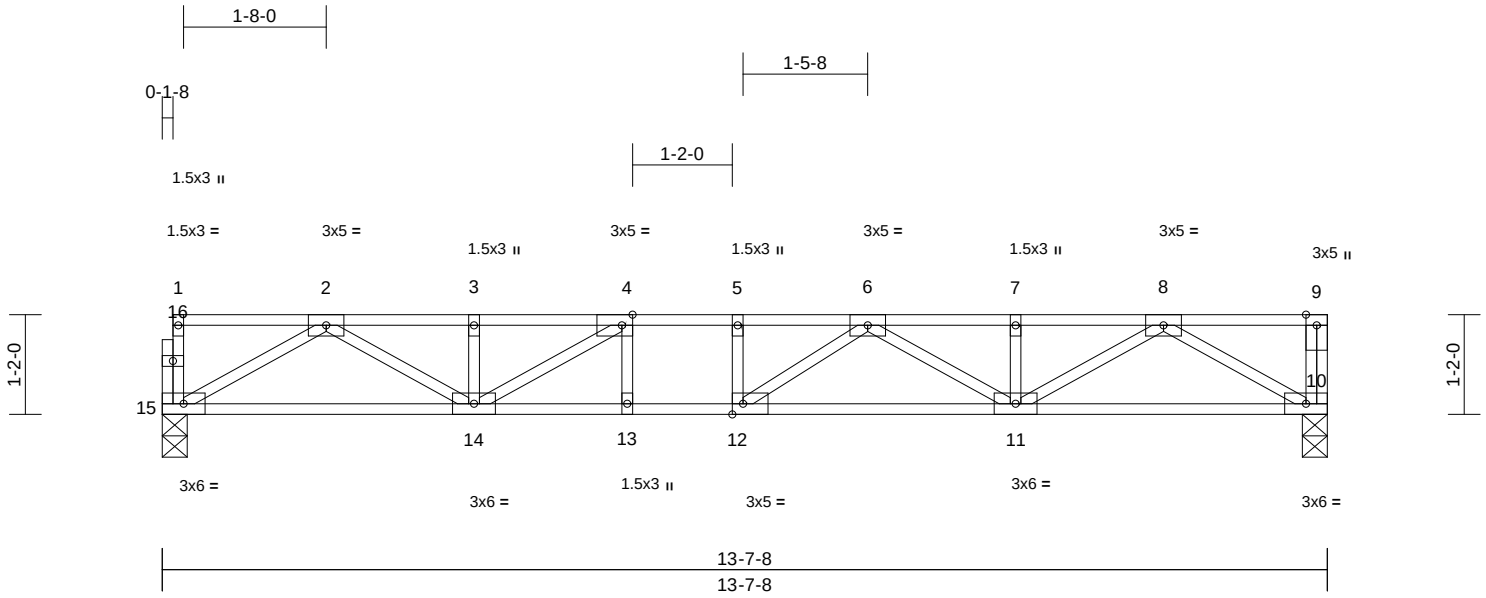
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F204 | Floor | 2 | 1 | I70832489 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25 ID:3dp5enpHnF8WalNVxz?_DgzHz?A-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f






Scale = 1:26.9

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.43 | Vert(LL) | -0.13 | 11-12 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.76 | Vert(CT) | -0.19 | 11-12 | >860 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.41 | Horz(CT) | 0.04 | 10 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 71 lb | FT = 20%F, 11%E |

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 10=0-3-8, 15=0-3-8
Max Grav 10=736 (LC 1), 15=729 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-15=-71/0, 9-10=-73/0, 1-2=-4/0, 2-3=-1846/0, 3-4=-1846/0, 4-5=-2320/0, 5-6=-2320/0, 6-7=-1857/0, 7-8=-1857/0, 8-9=0/0
BOT CHORD 14-15=0/1109, 13-14=0/2320, 12-13=0/2320, 11-12=0/2259, 10-11=0/1115
WEBS 8-10=-1290/0, 2-15=-1278/0, 8-11=0/867, 2-14=0/860, 7-11=-159/0, 3-14=-193/24, 6-11=-469/0, 4-14=-668/0, 6-12=-140/324, 4-13=-38/113, 5-12=-124/14

**NOTES**

1) Unbalanced floor live loads have been considered for this design.
2) 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.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
4) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard


January 17,2025



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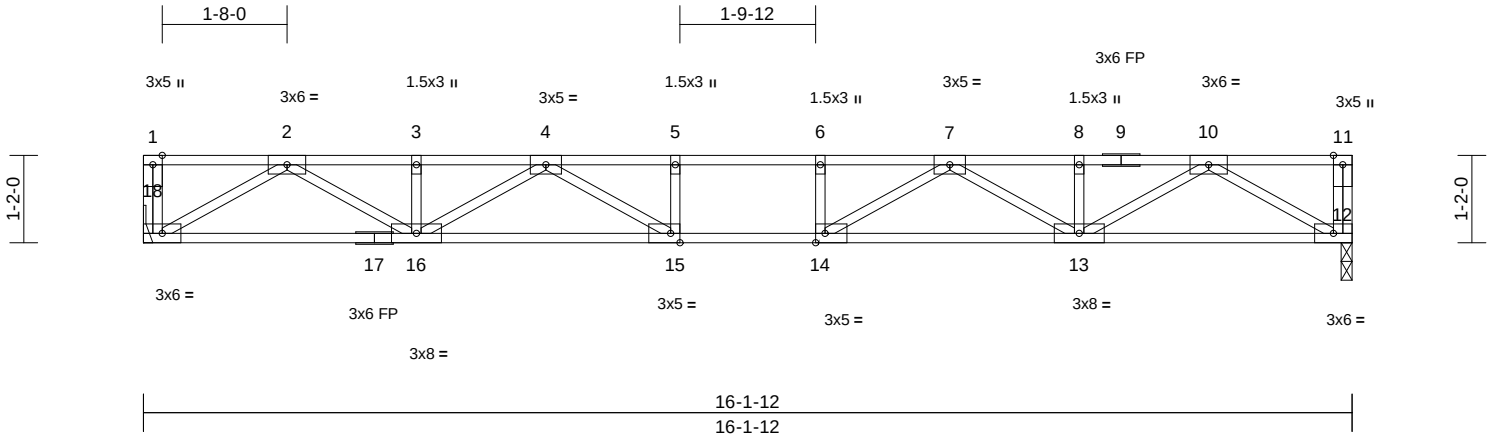
818 Soundside Road
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F207 | Floor | 2 | 1 | I70832490 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25 Page: 1
ID:XpNTr7qvYYGNCvyhVhWDmtzHz?9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:30.8

Plate Offsets (X, Y): [14:0-1-8,Edge], [15:0-1-8,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.63 | Vert(LL) | -0.22 | 14-15 | >856 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.95 | Vert(CT) | -0.31 | 14-15 | >625 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.54 | Horz(CT) | 0.06 | 12 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 82 lb | FT = 20%F, 11%E |

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

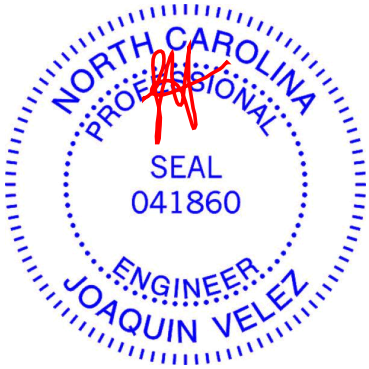
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.

**REACTIONS** (size) 12=0-1-12, 18= Mechanical
Max Grav 12=874 (LC 1), 18=874 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-18=-74/0, 11-12=-74/0, 1-2=0/0, 2-3=-2322/0, 3-4=-2322/0, 4-5=-3302/0, 5-6=-3302/0, 6-7=-3302/0, 7-8=-2322/0, 8-10=-2322/0, 10-11=0/0
BOT CHORD 16-18=0/1350, 15-16=0/2954, 14-15=0/3302, 13-14=0/2954, 12-13=0/1350
WEBS 10-12=-1562/0, 2-18=-1562/0, 10-13=0/1135, 2-16=0/1135, 8-13=-165/0, 3-16=-165/0, 7-13=-738/0, 4-16=-738/0, 7-14=0/664, 4-15=0/664, 6-14=-252/0, 5-15=-252/0

**NOTES**
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 12.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard




January 17,2025



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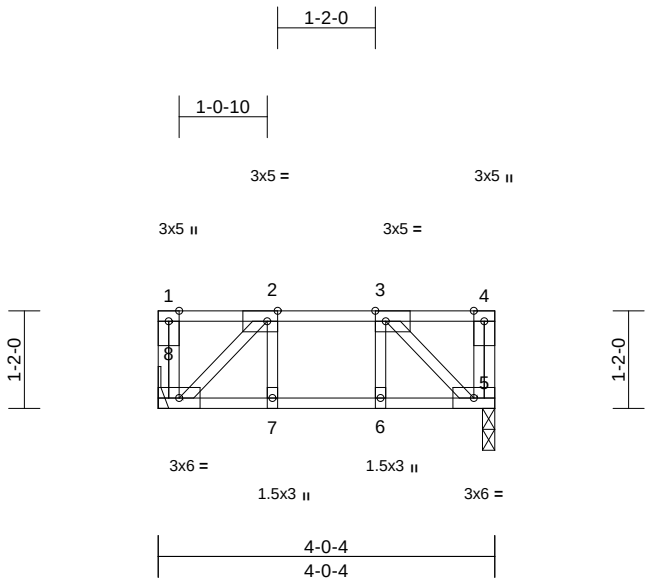
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F211 | Floor | 2 | 1 | I70832491 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25 Page: 1
ID:XpNTr7qvYYGNCvyhVhWDmtzHz?9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f




Scale = 1:27.5

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

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.09 | Vert(LL) | 0.00 | 7 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.09 | Vert(CT) | 0.00 | 7 | >999 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.05 | Horz(CT) | 0.00 | 5 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 24 lb | FT = 20%F, 11%E |

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

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

**REACTIONS** (size) 5=0-1-12, 8= Mechanical
Max Grav 5=207 (LC 1), 8=207 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-55/0, 4-5=-55/0, 1-2=0/0, 2-3=-180/0, 3-4=0/0
BOT CHORD 7-8=0/180, 6-7=0/180, 5-6=0/180
WEBS 2-8=-236/0, 3-5=-236/0, 2-7=-5/31, 3-6=-5/31

**NOTES**
1) Unbalanced floor live loads have been considered for this design.
2) Refer to girder(s) for truss to truss connections.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard


January 17,2025



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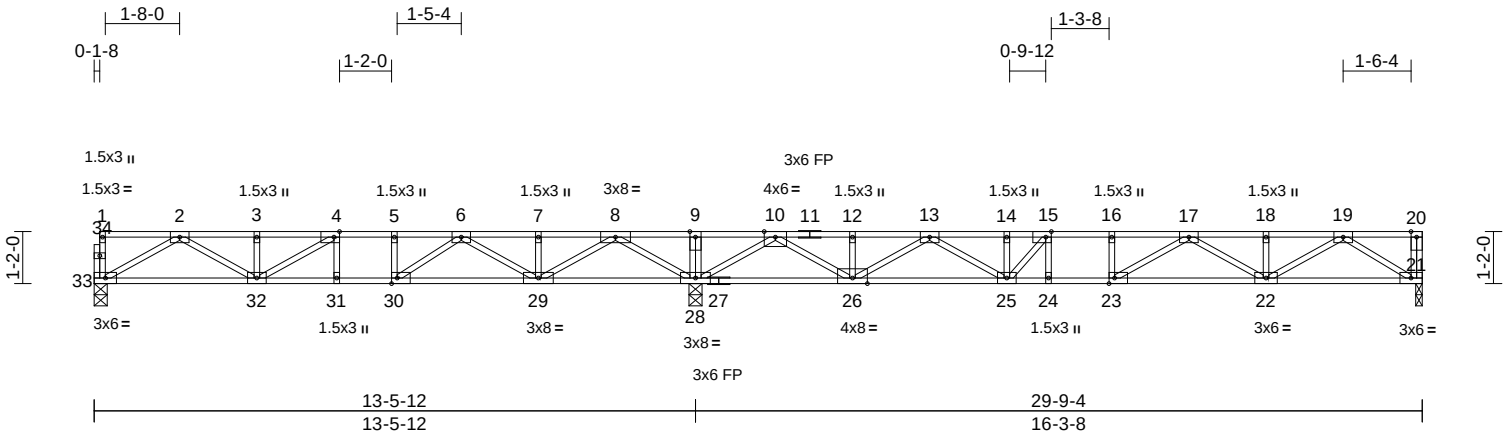
Edenton, NC 27932

| Job | Truss | Truss Type | Qty | Ply | 2nd Floor-Forsyth 3 GRH 10x10 CP |
|---|---|---|---|---|---|
| 25010102-B | F202 | Floor | 5 | 1 | I70832492 Job Reference (optional) |

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

Run: 8.73 S Dec 5 2024 Print: 8.730 S Dec 5 2024 MiTek Industries, Inc. Thu Jan 16 14:01:25
ID:3dp5enpHnF8WalNVxz?_DgzHz?A-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f






Scale = 1:51.7

Plate Offsets (X, Y): [4:0-1-8,Edge], [15:0-1-8,Edge], [23:0-1-8,Edge], [30:0-1-8,Edge]

| Loading | (psf) | Spacing | 2-0-0 | CSI | | DEFL | in | (loc) | l/defl | L/d | PLATES | GRIP |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TCLL | 40.0 | Plate Grip DOL | 1.00 | TC | 0.89 | Vert(LL) | -0.18 | 22-23 | >999 | 360 | MT20 | 244/190 |
| TCDL | 10.0 | Lumber DOL | 1.00 | BC | 0.89 | Vert(CT) | -0.25 | 22-23 | >790 | 240 | | |
| BCLL | 0.0 | Rep Stress Incr | YES | WB | 0.71 | Horz(CT) | 0.04 | 21 | n/a | n/a | | |
| BCDL | 5.0 | Code | IRC2018/TPI2014 | Matrix-MSH | | | | | | | Weight: 152 lb | FT = 20%F, 11%E |

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

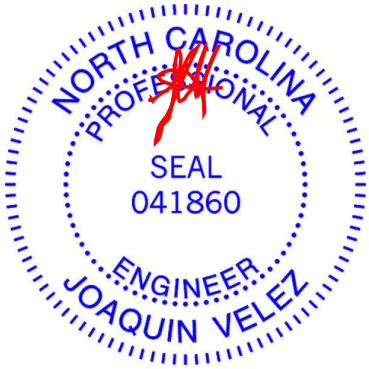
**BRACING**
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

**REACTIONS** (size) 21=0-1-12, 28=0-3-8, 33=0-3-8
Max Grav 21=767 (LC 4), 28=1995 (LC 1), 33=618 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-33=-73/0, 20-21=-66/0, 1-2=-4/0, 2-3=-1486/0, 3-4=-1486/0, 4-5=-1683/216, 5-6=-1683/216, 6-7=-811/888, 7-8=-811/888, 8-9=0/2536, 9-10=0/2536, 10-12=-888/449, 12-13=-888/449, 13-14=-2306/0, 14-15=-2306/0, 15-16=-2534/0, 16-17=-2534/0, 17-18=-1908/0, 18-19=-1908/0, 19-20=0/0
BOT CHORD 32-33=0/919, 31-32=-216/1683, 30-31=-216/1683, 29-30=-540/1398, 28-29=-1350/0, 26-28=-983/0, 25-26=-130/1752, 24-25=0/2534, 23-24=0/2534, 22-23=0/2389, 21-22=0/1086
WEBS 9-28=-205/0, 8-28=-1612/0, 2-33=-1058/0, 8-29=0/1260, 2-32=-13/662, 7-29=-187/0, 3-32=-244/0, 6-29=-867/0, 4-32=-228/323, 6-30=0/730, 4-31=-142/0, 5-30=-270/0, 10-28=-1854/0, 10-26=0/1488, 12-26=-172/0, 13-26=-1095/0, 13-25=0/728, 14-25=-141/123, 19-21=-1285/0, 19-22=0/960, 18-22=-160/0, 17-22=-562/0, 17-23=-224/284, 16-23=-107/36, 15-25=-719/0, 15-24=-24/201

**NOTES**
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
3) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 21.
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.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

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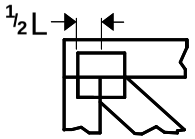
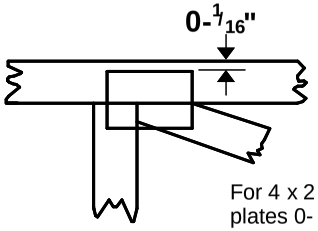
# Symbols

## 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.

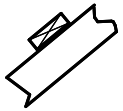
* Plate location details available in MiTek software or upon request.

## PLATE SIZE

4 x 4

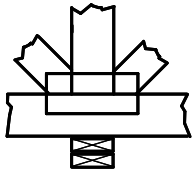
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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

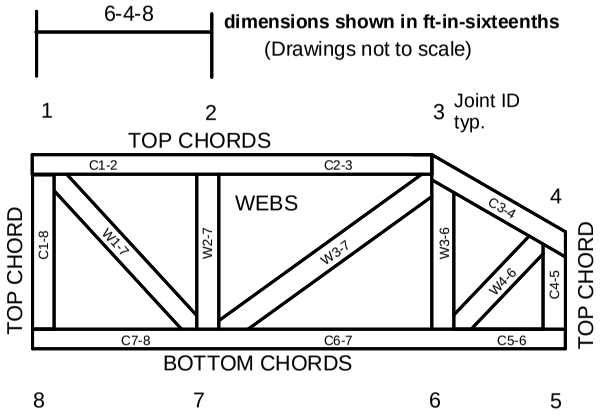


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

**Industry Standards:**

ANSI/TPI1: 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/TPI 1 section 6.3 These truss designs rely on lumber values established by others.



MiTek®

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

# General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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