

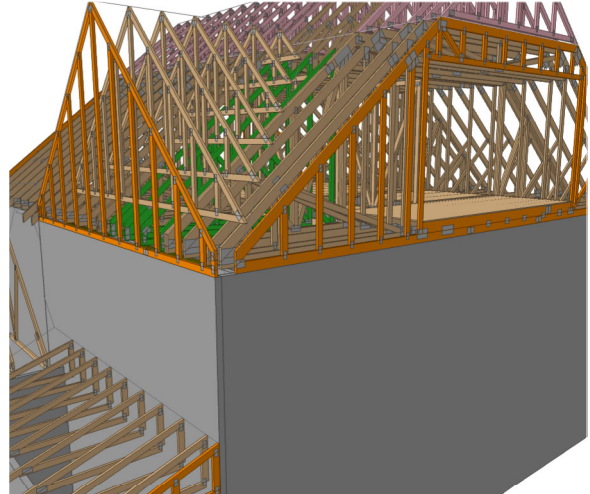


Carter Sanford Component Plant  
298 Harvey Faulk Rd  
Sanford, NC 27332

Phone #:919-775-1450

**Builder:** HH Hunt Homes Raleigh  
Durham

**Model:** Greystone FA SP 3FL 3CG FE  
GLH



**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:** \_\_\_\_\_

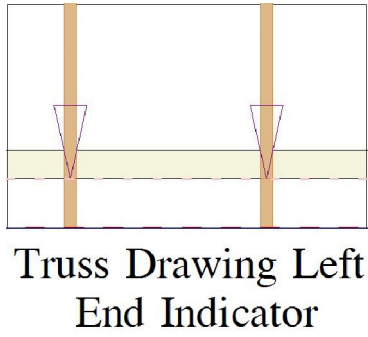
**Date:** \_\_\_\_\_

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 BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

\*\* FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. \*\* DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT. \*\* TRUSS TO TRUSS CONNECTIONS ARE TOE-NAILED, UNLESS NOTED OTHERWISE.

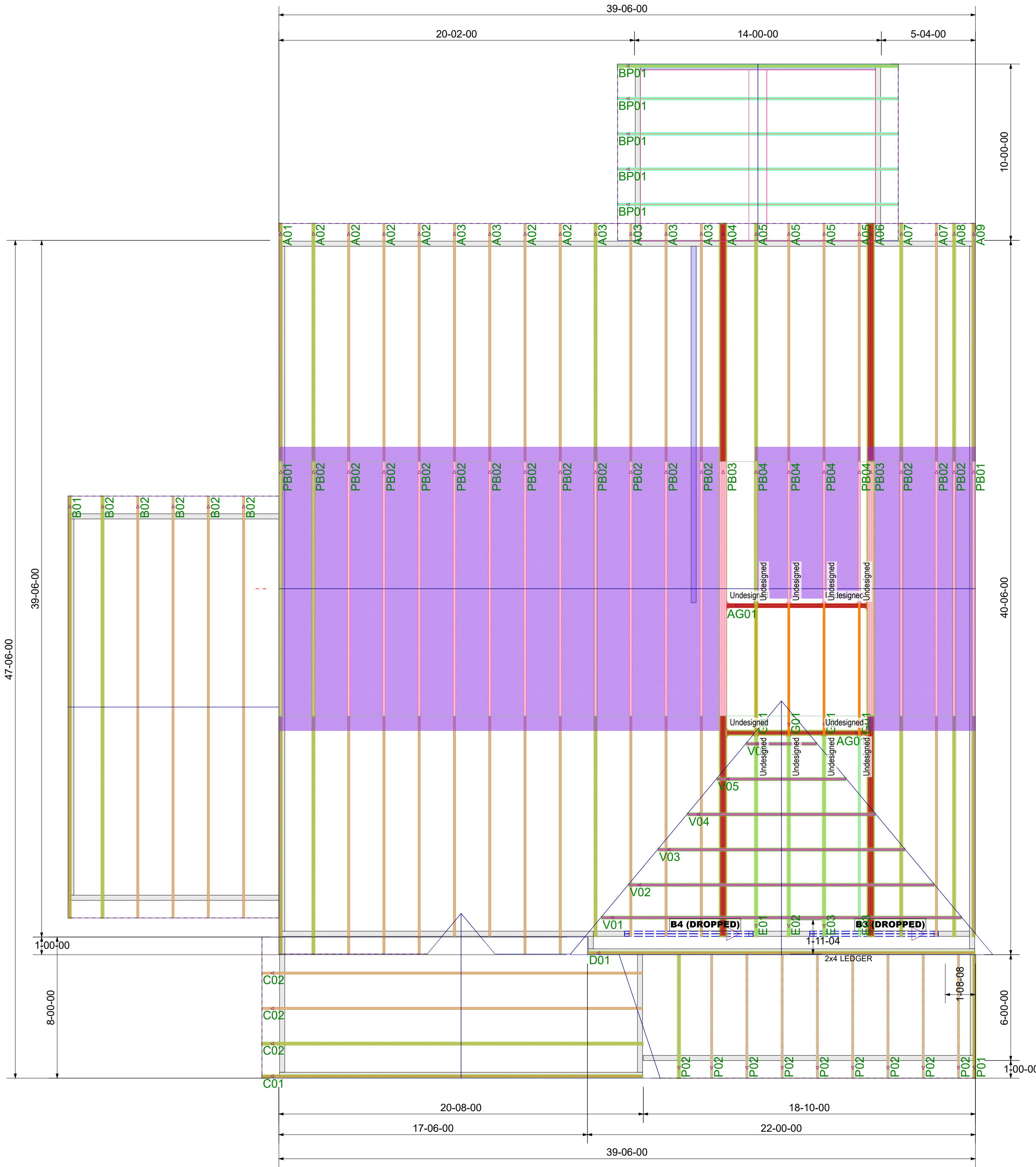


Truss Drawing Left End Indicator

\*\* 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.



Hanger List	
HTU26	8
HTU26-2	4

- DIMENSIONS ARE TO OUTSIDE OF SHEATHING

ROOF PLACEMENT PLAN

\*\* GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS. \*\* DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH. \*\* All uplift connectors shown within these documents are recommendations only. Per ANSI/TPI 1, all uplift connectors are the responsibility of the bldg designer and or contractor.

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



HH Hunt Homes Raleigh Durham
Install 50 Magnolia Acres -
Roof Truss Layout

Scale:	NTS
Date:	3/19/2025
Designer:	Blake Scrivner
Project Number:	25030054-01
Sheet Number:	

1/1

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 25030054-01

Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL 3CG FE GLH

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: I72141552 thru I72141583

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

North Carolina COA: C-0844



March 20, 2025

Gilbert, Eric

**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.

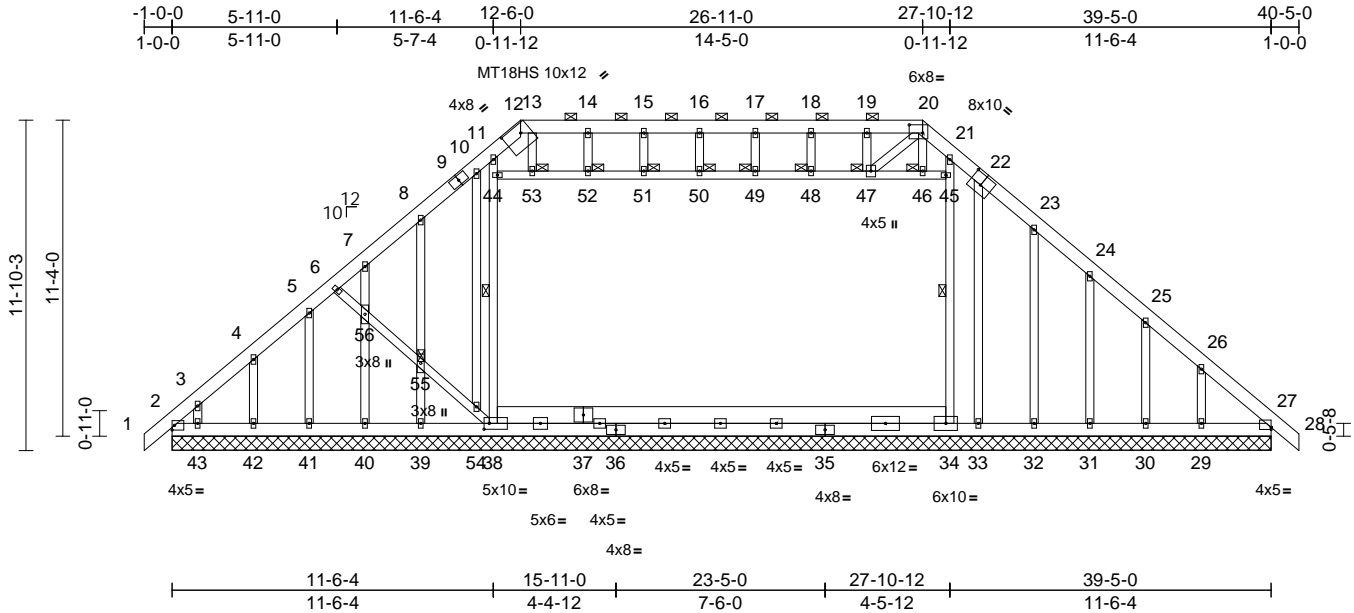


Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL I72141552
25030054-01	A01	Attic Supported Gable	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:35  
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Page: 1



Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A01	Attic Supported Gable	1	1	I72141552
					Job Reference (optional)

- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2'-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'-0" tall by 2'-0" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 13) Ceiling dead load (10.0 psf) on member(s). 44-53, 52-53, 51-52, 50-51, 49-50, 48-49, 47-48, 46-47, 45-46
- 14) All bearings are assumed to be SP 2400F 2.0E .
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 144 lb uplift at joint 2, 518 lb uplift at joint 39, 2 lb uplift at joint 41, 20 lb uplift at joint 42, 55 lb uplift at joint 43, 1449 lb uplift at joint 33, 10 lb uplift at joint 31, 466 lb uplift at joint 30, 20 lb uplift at joint 29 and 144 lb uplift at joint 2.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 18) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

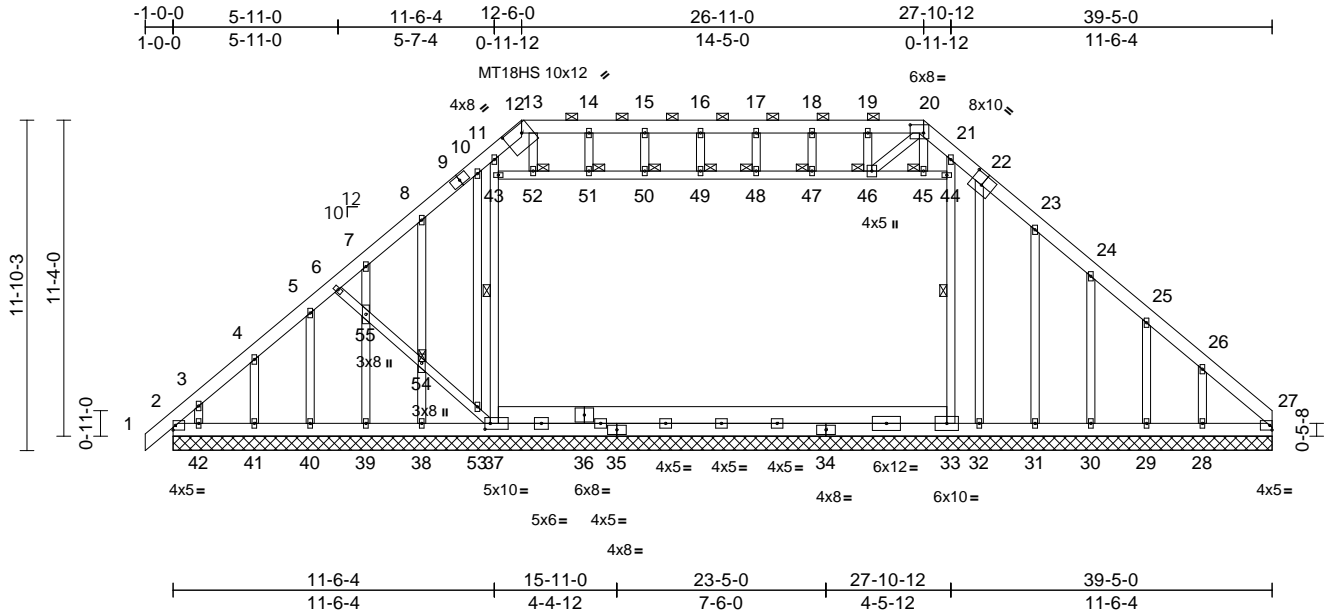
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A09	Attic Supported Gable	1	1	I72141553
Job Reference (optional)					

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

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Page: 1

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Scale = 1:82.6												
Plate Offsets (X, Y): [12:0-7-12,0-3-10], [20:0-5-12,0-3-8], [22:0-5-0,0-4-8], [37:0-2-4,0-2-8]												
<b>Loading</b>	(psf)	<b>Spacing</b>	1-10-4	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	n/a	-	n/a	999	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.02	27	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
Weight: 422 lb												FT = 20%

<b>LUMBER</b>			<b>TOP CHORD</b>	1-2=0/45, 2-3=-334/166, 3-4=-324/155, 4-5=-322/149, 5-6=-365/168, 6-7=-349/180, 7-8=-425/232, 8-10=-292/279, 10-11=-220/278, 11-12=-773/351, 12-13=-566/331, 13-14=-566/331, 14-15=-566/331, 15-16=-566/331, 16-17=-566/331, 17-18=-566/331, 18-19=-566/331, 19-20=-565/330, 20-21=-413/277, 21-23=-282/259, 23-24=-325/207, 24-25=-300/147, 25-26=-407/95, 26-27=-265/81	2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
<b>BRACING</b>			<b>BOT CHORD</b>	2-42=-137/224, 41-42=-76/224, 40-41=-76/224, 39-40=-76/224, 38-39=-76/224, 37-38=-76/224, 33-37=-71/255, 32-33=-63/240, 31-32=-61/231, 30-31=-61/231, 29-30=-61/231, 28-29=-61/231, 27-28=-61/231	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.
<b>REACTIONS</b>			<b>WEBS</b>	6-55=-43/91, 54-55=-45/96, 53-54=-40/80, 37-53=-56/134, 37-43=-525/63, 11-43=-628/79, 33-44=-754/53, 21-44=-829/77, 43-52=-61/316, 51-52=-61/316, 50-51=-61/316, 49-50=-61/316, 48-49=-61/316, 47-48=-61/316, 46-47=-61/316, 45-46=-179/53, 44-45=-179/53, 20-45=-54/93, 19-46=-387/97, 18-47=-18/4, 17-48=-21/7, 16-49=-24/8, 15-50=-9/3, 14-51=-71/23, 13-52=-70/200, 10-53=-22/77, 8-54=-46/184, 38-54=-45/208, 7-55=-185/69, 39-55=-190/70, 5-40=-178/62, 4-41=-117/70, 3-42=-82/47, 22-32=-66/325, 23-31=-85/60, 24-30=-150/72, 25-29=-59/114, 26-28=-350/87, 20-46=-150/650	4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
<b>FORCES</b>			<b>NOTES</b>	1) Unbalanced roof live 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.



March 20,2025

Continued on page 2

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)



818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL I72141553
25030054-01	A09	Attic Supported Gable	1	1	Job Reference (optional)

- 9) Gable requires continuous bottom chord bearing.
- 10) Gable studs spaced at 2'-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'-0" tall by 2'-0" wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 13) Ceiling dead load (10.0 psf) on member(s). 43-52, 51-52, 50-51, 49-50, 48-49, 47-48, 46-47, 45-46, 44-45
- 14) All bearings are assumed to be SP 2400F 2.0E .
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 141 lb uplift at joint 2, 514 lb uplift at joint 38, 2 lb uplift at joint 40, 20 lb uplift at joint 41, 56 lb uplift at joint 42, 1448 lb uplift at joint 32, 9 lb uplift at joint 30, 438 lb uplift at joint 29, 22 lb uplift at joint 28 and 141 lb uplift at joint 2.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
- 18) Attic room checked for L/360 deflection.

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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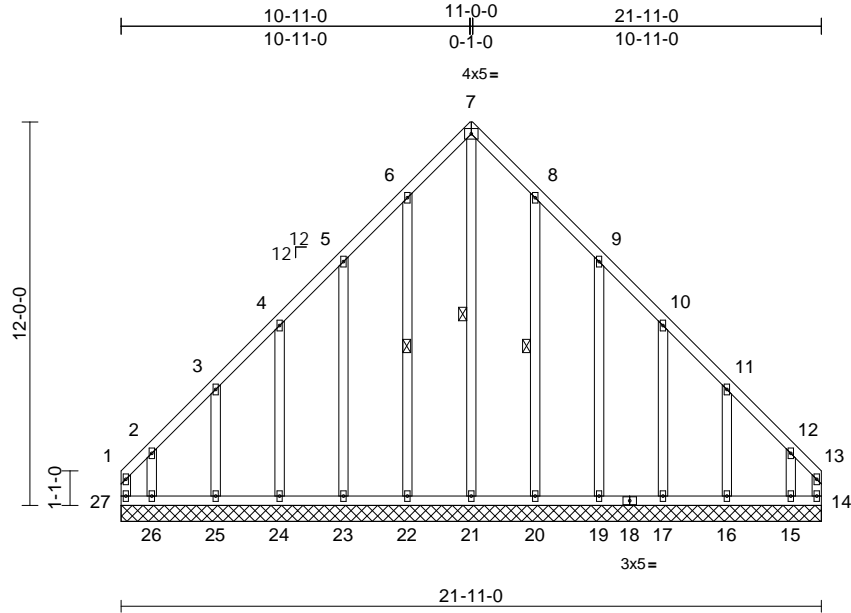
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	D01	Common Supported Gable	1	1	I72141554
Job Reference (optional)					

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

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Page: 1



Scale = 1:72.1

Loading	(psf)	Spacing	1-10-4	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
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	14	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 180 lb FT = 20%											

<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* 21-7:2x4 SP No.2

<b>BRACING</b>	
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.
WEBS	1 Row at midpt 7-21, 6-22, 8-20

<b>REACTIONS</b>	(size)	14=21-11-0, 15=21-11-0, 16=21-11-0, 17=21-11-0, 19=21-11-0, 20=21-11-0, 21=21-11-0, 22=21-11-0, 23=21-11-0, 24=21-11-0, 25=21-11-0, 26=21-11-0, 27=21-11-0
Max Horiz		27=174 (LC 13)
Max Uplift		14=158 (LC 13), 15=135 (LC 15), 16=27 (LC 15), 17=34 (LC 15), 19=38 (LC 15), 20=25 (LC 15), 22=26 (LC 14), 23=37 (LC 14), 24=34 (LC 14), 25=27 (LC 14), 26=153 (LC 11), 27=193 (LC 12)
Max Grav		14=208 (LC 10), 15=196 (LC 26), 16=156 (LC 26), 17=156 (LC 26), 19=156 (LC 26), 20=161 (LC 26), 21=220 (LC 15), 22=162 (LC 25), 23=155 (LC 25), 24=156 (LC 25), 25=155 (LC 25), 26=212 (LC 25), 27=243 (LC 11)

<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-27=-164/130, 1-2=-191/163, 2-3=-123/111, 3-4=-110/95, 4-5=-107/112, 5-6=-173/193, 6-7=-228/257, 7-8=-228/257, 8-9=-173/193, 9-10=-107/112, 10-11=-93/73, 11-12=-102/89, 12-13=-163/134, 13-14=-139/105

<b>BOT CHORD</b>	26-27=-84/102, 25-26=-84/102, 24-25=-84/102, 23-24=-84/102, 22-23=-84/102, 21-22=-84/102, 20-21=-84/102, 19-20=-84/102, 17-19=-84/102, 16-17=-84/102, 15-16=-84/102, 14-15=-84/102
<b>WEBS</b>	7-21=-312/218, 6-22=-125/68, 5-23=-131/91, 4-24=-123/82, 3-25=-128/85, 2-26=-143/119, 8-20=-124/68, 9-19=-131/91, 10-17=-123/82, 11-16=-128/85, 12-15=-141/118

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 193 lb uplift at joint 27, 158 lb uplift at joint 14, 26 lb uplift at joint 22, 37 lb uplift at joint 23, 34 lb uplift at joint 24, 27 lb uplift at joint 25, 153 lb uplift at joint 26, 25 lb uplift at joint 20, 38 lb uplift at joint 19, 34 lb uplift at joint 17, 27 lb uplift at joint 16 and 135 lb uplift at joint 15.

**LOAD CASE(S)** Standard



March 20,2025

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

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

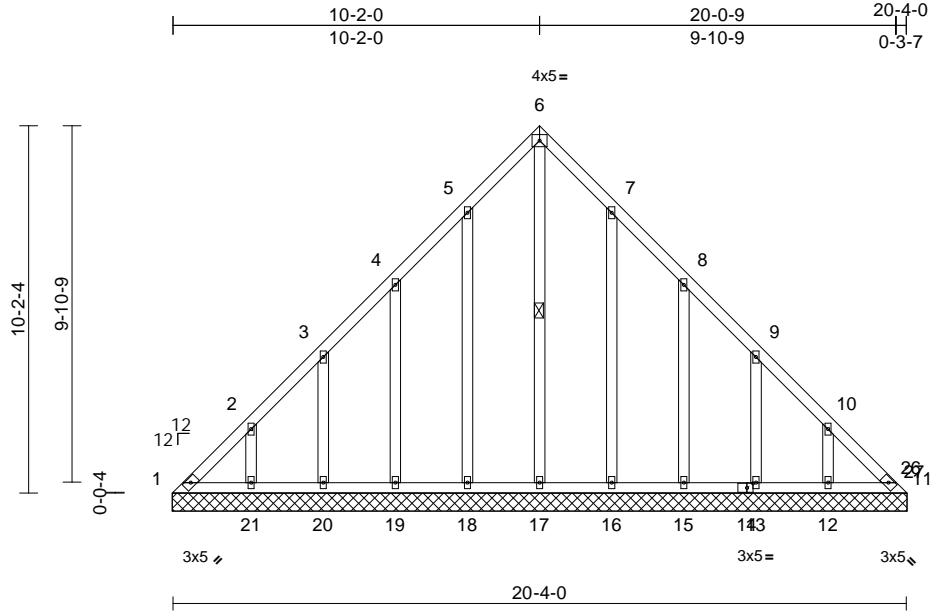


Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	V01	Valley	1	1	I72141555
Job Reference (optional)					

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

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Page: 1



Scale = 1:63.9

Plate Offsets (X, Y): [14:0-2-0,0-1-8]

Loading	(psf)	Spacing	1-10-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	11	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 141 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.  
WEBS 1 Row at midpt 6-17

**REACTIONS** (size)  
1=20-4-8, 11=20-4-8, 12=20-4-8, 13=20-4-8, 15=20-4-8, 16=20-4-8, 17=20-4-8, 18=20-4-8, 19=20-4-8, 20=20-4-8, 21=20-4-8  
Max Horiz 1=143 (LC 11)  
Max Uplift 1=38 (LC 12), 11=14 (LC 13), 12=11 (LC 15), 13=39 (LC 15), 15=35 (LC 15), 16=30 (LC 15), 18=32 (LC 14), 19=34 (LC 14), 20=38 (LC 14), 21=15 (LC 14)  
Max Grav 1=112 (LC 26), 11=82 (LC 15), 12=178 (LC 2), 13=151 (LC 26), 15=157 (LC 26), 16=161 (LC 26), 17=146 (LC 28), 18=163 (LC 25), 19=157 (LC 25), 20=149 (LC 25), 21=182 (LC 25)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=155/138, 2-3=121/104, 3-4=96/80, 4-5=84/75, 5-6=133/145, 6-7=133/145, 7-8=73/75, 8-9=68/46, 9-10=95/80, 10-11=154/137  
BOT CHORD 1-21=107/132, 20-21=107/132, 19-20=107/132, 18-19=107/132, 17-18=107/132, 16-17=107/132, 15-16=107/132, 13-15=107/132, 12-13=107/132, 11-12=107/132

WEBS 6-17=160/89, 5-18=126/77, 4-19=127/87, 3-20=126/87, 2-21=123/68, 7-16=125/77, 8-15=127/87, 9-13=126/87, 10-12=120/67

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1, 14 lb uplift at joint 11, 32 lb uplift at joint 18, 34 lb uplift at joint 19, 38 lb uplift at joint 20, 15 lb uplift at joint 21, 30 lb uplift at joint 16, 35 lb uplift at joint 15, 39 lb uplift at joint 13 and 11 lb uplift at joint 12.

12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 11.

**LOAD CASE(S)** Standard



March 20,2025

**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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Edenton, NC 27932

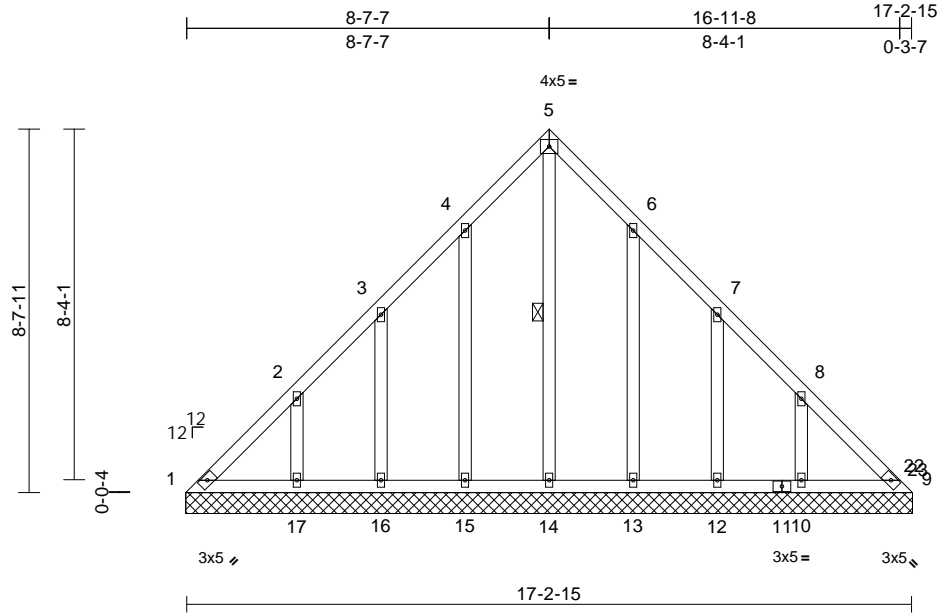
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	V02	Valley	1	1	I72141556
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39

Page: 1

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Scale = 1:54.8

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	0.07	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.07	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.10	Horiz(TL)	0.00	9	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 109 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 5-14

#### REACTIONS

(size)	1=17-3-7, 9=17-3-7, 10=17-3-7, 12=17-3-7, 13=17-3-7, 14=17-3-7, 15=17-3-7, 16=17-3-7, 17=17-3-7
Max Horiz	1=130 (LC 11)
Max Uplift	1=21 (LC 10), 9=1 (LC 13), 10=25 (LC 15), 12=42 (LC 15), 13=34 (LC 15), 15=35 (LC 14), 16=40 (LC 14), 17=29 (LC 14)
Max Grav	1=117 (LC 26), 9=84 (LC 28), 10=219 (LC 26), 12=151 (LC 26), 13=180 (LC 26), 14=163 (LC 28), 15=182 (LC 25), 16=148 (LC 25), 17=227 (LC 25)

#### FORCES

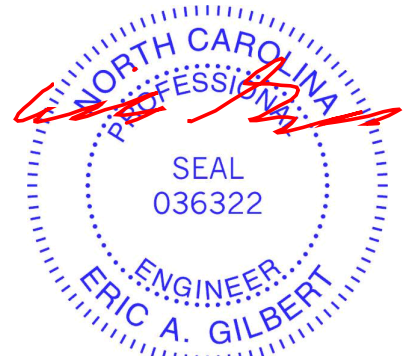
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=130/129, 2-3=91/90, 3-4=73/74, 4-5=111/129, 5-6=111/129, 6-7=47/52, 7-8=65/62, 8-9=127/128
BOT CHORD	1-17=103/119, 16-17=103/119, 15-16=103/119, 14-15=103/119, 13-14=103/119, 12-13=103/119, 10-12=103/119, 9-10=103/119
WEBS	5-14=136/51, 4-15=139/86, 3-16=132/94, 2-17=151/87, 6-13=137/86, 7-12=132/94, 8-10=149/87

#### NOTES

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 1, 1 lb uplift at joint 9, 35 lb uplift at joint 15, 40 lb uplift at joint 16, 29 lb uplift at joint 17, 34 lb uplift at joint 13, 42 lb uplift at joint 12 and 25 lb uplift at joint 10.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 9.

LOAD CASE(S) Standard



March 20,2025

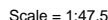
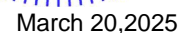
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacompnents.com](http://www.sbcacompnents.com))

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Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:40 Page: 1  
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LOAD CASE(S) Standard

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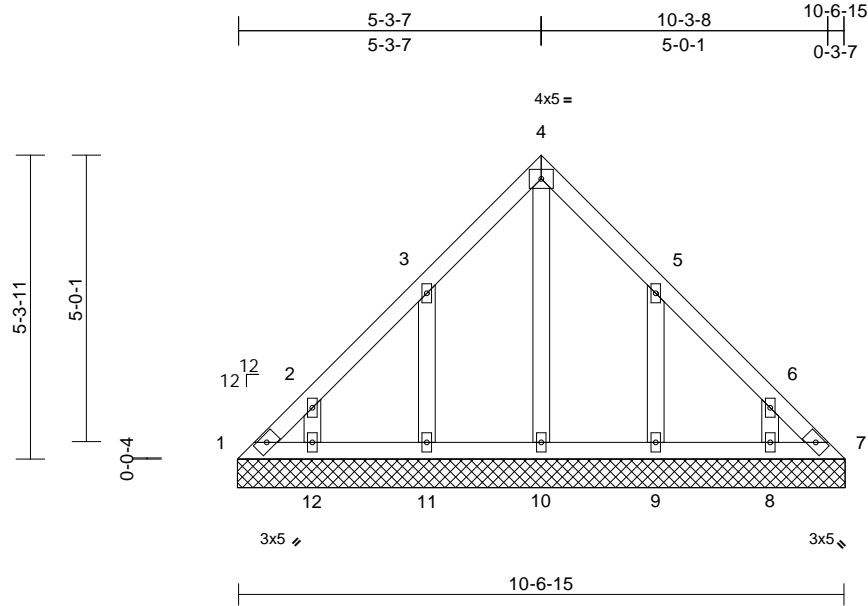
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	V04	Valley	1	1	I72141558
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:40

Page: 1

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Scale = 1:40.3

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	0.05	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	7	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 54 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=10-7-7, 7=10-7-7, 8=10-7-7, 9=10-7-7, 10=10-7-7, 11=10-7-7, 12=10-7-7
Max Horiz	1=79 (LC 11)
Max Uplift	1=-17 (LC 10), 8=-12 (LC 15), 9=-42 (LC 15), 11=-42 (LC 14), 12=-15 (LC 14)
Max Grav	1=68 (LC 26), 7=53 (LC 28), 8=151 (LC 2), 9=180 (LC 26), 10=118 (LC 28), 11=180 (LC 25), 12=152 (LC 25)

#### FORCES

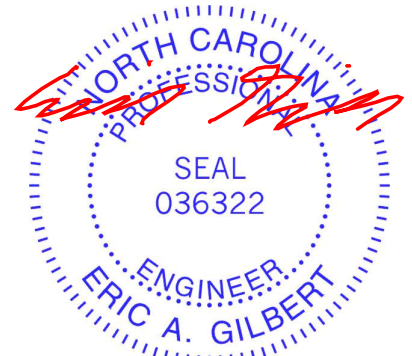
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-83/68, 2-3=-87/52, 3-4=-88/82, 4-5=-88/82, 5-6=-71/35, 6-7=-83/68
BOT CHORD	1-12=-52/75, 11-12=-52/75, 10-11=-52/75, 9-10=-52/75, 8-9=-52/75, 7-8=-52/75
WEBS	4-10=-77/20, 3-11=-148/104, 2-12=-112/74, 5-9=-148/104, 6-8=-112/74

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1, 42 lb uplift at joint 11, 15 lb uplift at joint 12, 42 lb uplift at joint 9 and 12 lb uplift at joint 8.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 7.

LOAD CASE(S) Standard



March 20,2025

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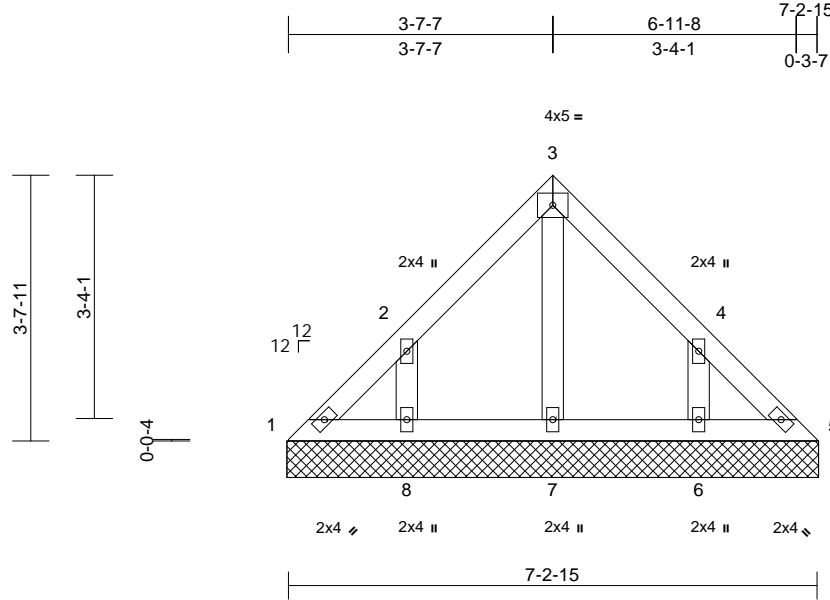


Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	V05	Valley	1	1	I72141559
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:40  
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Page: 1



Scale = 1:31.6

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	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0									Weight: 32 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=7-3-7, 5=7-3-7, 6=7-3-7, 7=7-3-7, 8=7-3-7
Max Horiz	1=-53 (LC 10)
Max Uplift	1=-6 (LC 10), 6=-32 (LC 15), 8=-34 (LC 14)
Max Grav	1=63 (LC 26), 5=54 (LC 2), 6=184 (LC 26), 7=114 (LC 2), 8=186 (LC 25)

#### FORCES

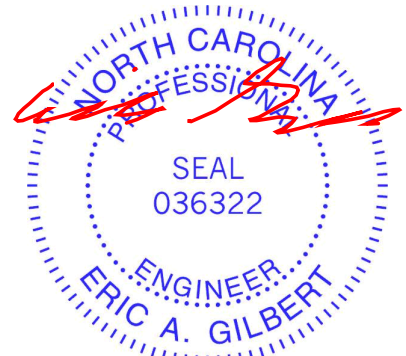
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-66/55, 2-3=-68/54, 3-4=-65/54, 4-5=-55/45
BOT CHORD	1-8=-36/49, 7-8=-36/49, 6-7=-36/49, 5-6=-36/49
WEBS	3-7=-76/0, 2-8=-148/103, 4-6=-148/103

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 34 lb uplift at joint 8 and 32 lb uplift at joint 6.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.

LOAD CASE(S) Standard



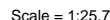
March 20,2025

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Page: 1LUMBER

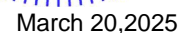
## BRACING

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

## NOTES

- 6) Gable studs spaced at 2-0-0 oc.
- 7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 8) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 9) All bearings are assumed to be SP No.2 .
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

LOAD CASE(S) Standard



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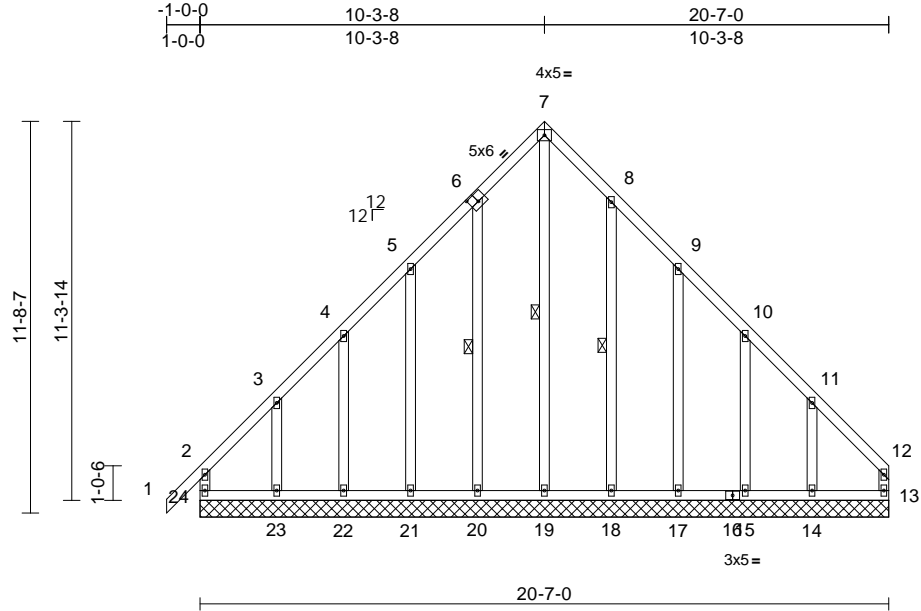
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	C01	Common Supported Gable	1	1	I72141561
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:38

Page: 1

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Scale = 1:68.9

Plate Offsets (X, Y): [6:0-3-0,0-3-0]

Loading	(psf)	Spacing	1-10-4	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	-	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	13	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 163 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\* 19-7:2x4 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 7-19, 6-20, 8-18

**REACTIONS** (size)  
13=20-7-0, 14=20-7-0, 15=20-7-0,  
17=20-7-0, 18=20-7-0, 19=20-7-0,  
20=20-7-0, 21=20-7-0, 22=20-7-0,  
23=20-7-0, 24=20-7-0  
Max Horiz 24=174 (LC 13)  
Max Uplift 13=51 (LC 11), 14=80 (LC 15),  
15=20 (LC 15), 17=41 (LC 15),  
18=25 (LC 15), 20=26 (LC 14),  
21=39 (LC 14), 22=19 (LC 14),  
23=86 (LC 14), 24=77 (LC 10)  
Max Grav 13=130 (LC 26), 14=212 (LC 27),  
15=143 (LC 2), 17=160 (LC 27),  
18=160 (LC 27), 19=232 (LC 15),  
20=161 (LC 26), 21=154 (LC 26),  
22=151 (LC 2), 23=197 (LC 26),  
24=216 (LC 27)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 2-24=-180/71, 1-2=0/57, 2-3=-148/128,  
3-4=-111/97, 4-5=-121/126, 5-7=-241/269,  
7-8=-241/269, 8-9=-187/205, 9-10=-119/124,  
10-11=-91/69, 11-12=-111/98, 12-13=-100/46  
BOT CHORD 23-24=-72/88, 22-23=-72/88, 21-22=-72/88,  
20-21=-72/88, 19-20=-72/88, 18-19=-72/88,  
17-18=-72/88, 15-17=-72/88, 14-15=-72/88,  
13-14=-72/88

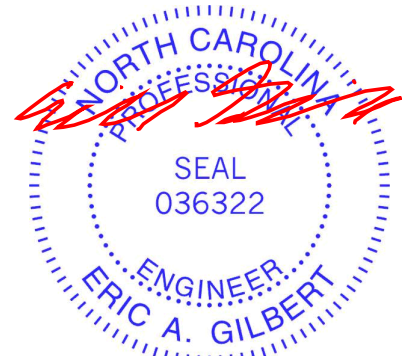
**WEBS**  
7-19=-329/234, 6-20=-125/69, 5-21=-128/90,  
4-22=-119/79, 3-23=-153/112, 8-18=-123/68,  
9-17=-133/93, 10-15=-117/76,  
11-14=-156/112

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 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.
- All bearings are assumed to be SP No.2.

13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 24, 51 lb uplift at joint 13, 26 lb uplift at joint 20, 39 lb uplift at joint 21, 19 lb uplift at joint 22, 86 lb uplift at joint 23, 25 lb uplift at joint 18, 41 lb uplift at joint 17, 20 lb uplift at joint 15 and 80 lb uplift at joint 14.

**LOAD CASE(S)** Standard



March 20,2025

**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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))

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818 Soundside Road  
Edenton, NC 27932

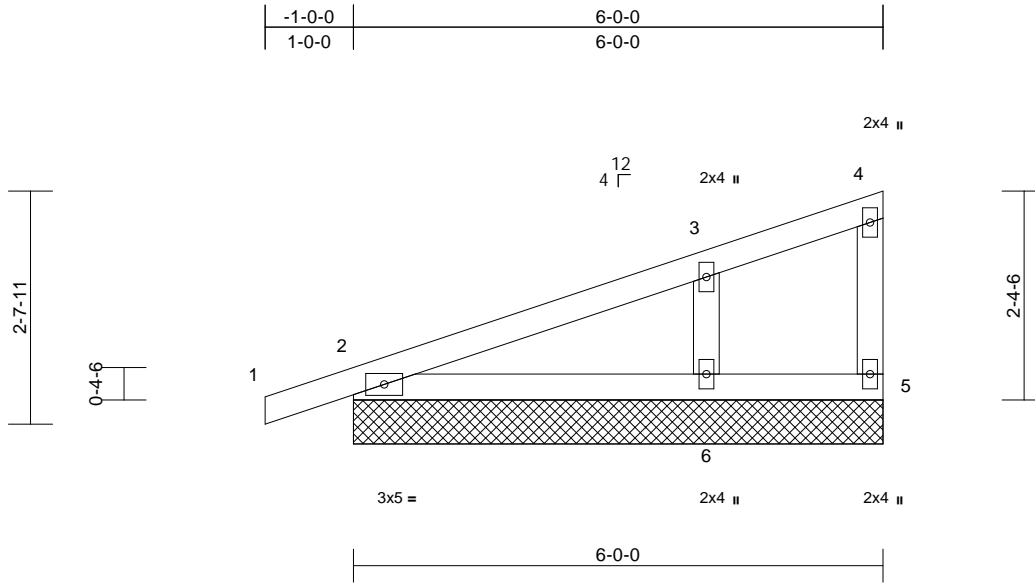
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	P01	Monopitch Supported Gable	1	1	I72141562
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39

Page: 1

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<b>Loading</b>	(psf)	<b>Spacing</b>	1-10-4	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							Weight: 24 lb	FT = 20%
BCDL	10.0											

**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 10'-0" oc bracing.

**REACTIONS** (size) 2=6'-0", 5=6'-0", 6=6'-0"  
Max Horiz 2=50 (LC 15)  
Max Uplift 2=9 (LC 12)  
Max Grav 2=194 (LC 2), 5=111 (LC 7), 6=297 (LC 2)

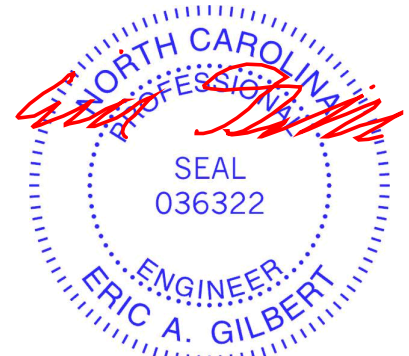
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/22, 2-3=-76/59, 3-4=-39/24, 4-5=-12/23  
BOT CHORD 2-6=-29/42, 5-6=-26/29  
WEBS 3-6=-222/107

#### NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 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 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2'-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'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- 10) All bearings are assumed to be SP No.2.
- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 2 and 9 lb uplift at joint 2.

**LOAD CASE(S)** Standard



March 20,2025

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Edenton, NC 27932

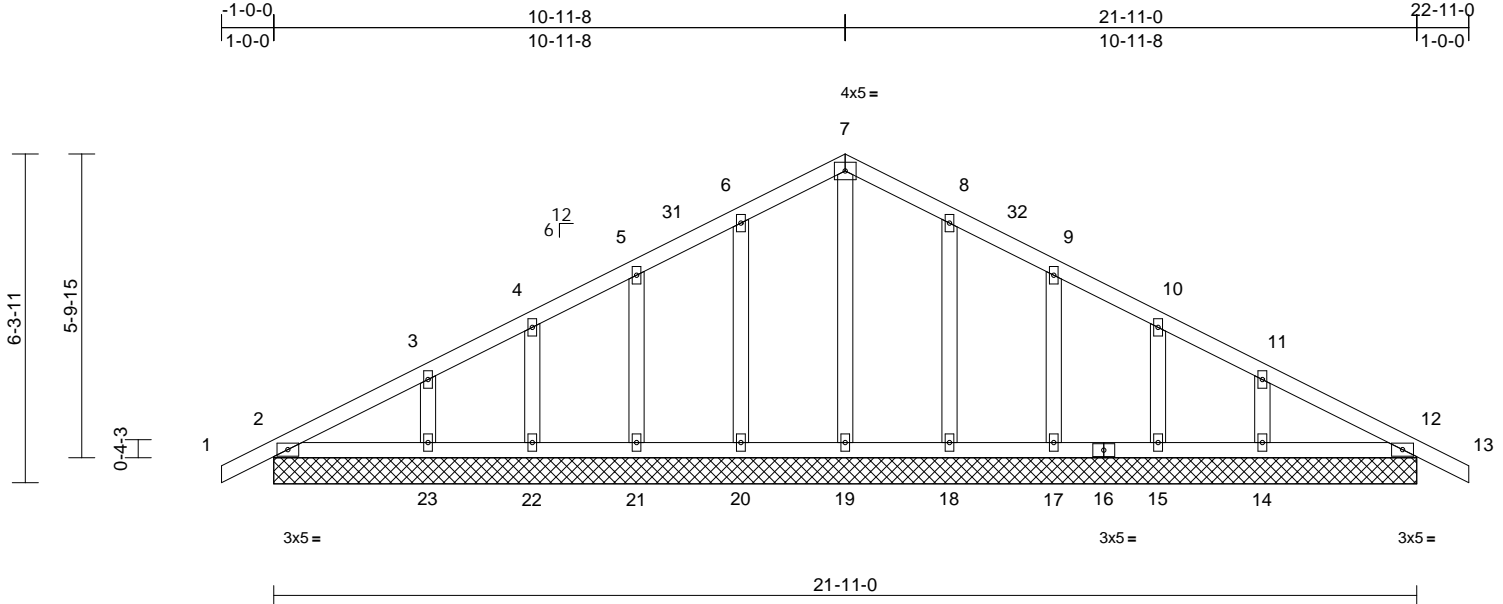


Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	B01	Common Supported Gable	1	1	I72141563
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:38  
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Page: 1



Scale = 1:44.2

Loading	(psf)	Spacing	1-10-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	28	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 114 lb FT = 20%											

<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3

<b>BRACING</b>	
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.

<b>REACTIONS</b>	(size)	2=21-11-0, 12=21-11-0, 14=21-11-0, 15=21-11-0, 17=21-11-0, 18=21-11-0, 19=21-11-0, 20=21-11-0, 21=21-11-0, 22=21-11-0, 23=21-11-0
	Max Horiz	2=-47 (LC 14)
	Max Uplift	14=-5 (LC 17), 15=-4 (LC 17), 17=-5 (LC 17), 18=-4 (LC 17), 20=-5 (LC 16), 21=-5 (LC 16), 22=-4 (LC 16), 23=-5 (LC 16)
	Max Grav	2=164 (LC 2), 12=164 (LC 2), 14=208 (LC 35), 15=128 (LC 35), 17=152 (LC 2), 18=165 (LC 24), 19=126 (LC 33), 20=165 (LC 23), 21=152 (LC 2), 22=128 (LC 34), 23=208 (LC 34)

<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/31, 2-3=-53/39, 3-4=-54/31, 4-5=-45/54, 5-6=-42/89, 6-7=-55/124, 7-8=-55/124, 8-9=-42/89, 9-10=-39/54, 10-11=-44/20, 11-12=-39/25, 12-13=0/31
BOT CHORD	2-23=-25/73, 22-23=-16/73, 21-22=-16/73, 20-21=-16/73, 19-20=-16/73, 18-19=-16/73, 17-18=-16/73, 15-17=-16/73, 14-15=-16/73, 12-14=-25/73
WEBS	7-19=-88/0, 6-20=-129/54, 5-21=-113/57, 4-22=-101/53, 3-23=-144/65, 8-18=-129/54, 9-17=-113/57, 10-15=-101/53, 11-14=-144/65

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 20, 5 lb uplift at joint 21, 4 lb uplift at joint 22, 5 lb uplift at joint 23, 4 lb uplift at joint 18, 5 lb uplift at joint 17, 4 lb uplift at joint 15 and 5 lb uplift at joint 14.

#### LOAD CASE(S)

Standard



March 20,2025

**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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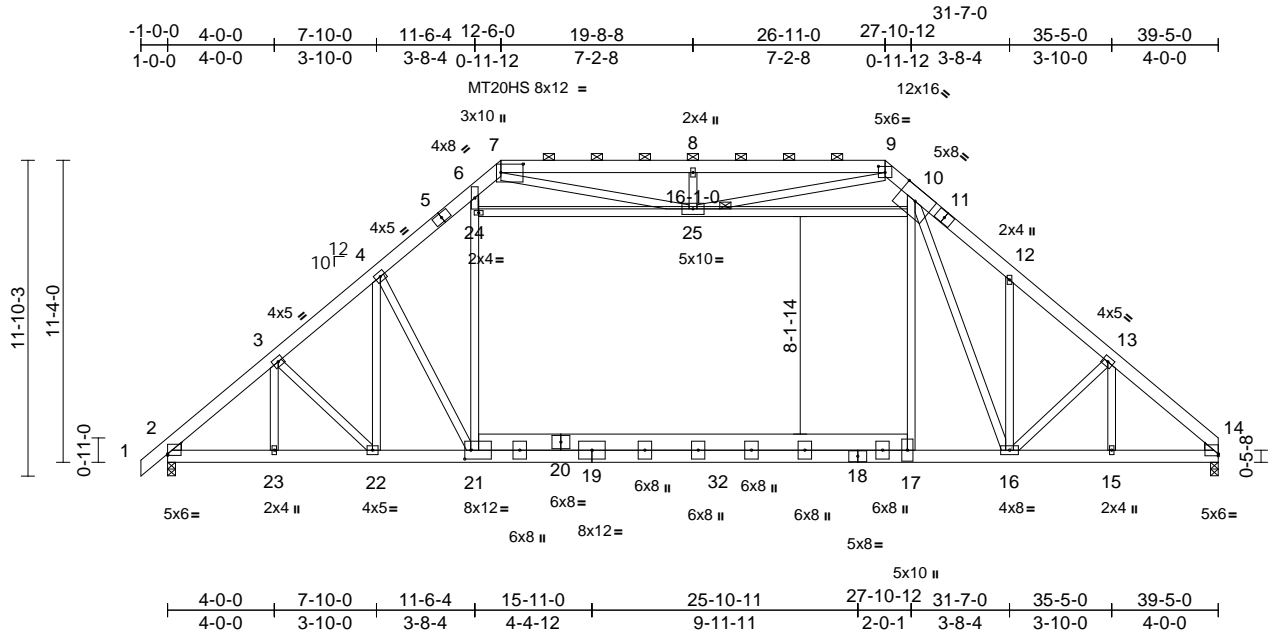
818 Soundside Road  
Edenton, NC 27932

Job 25030054-01	Truss A06	Truss Type Attic Girder	Qty 1	Ply 3	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL I72141564 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Thu Mar 20 11:57:01  
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Page: 1



Scale = 1:86.4

Plate Offsets (X, Y): [2:Edge,0-0-11], [7:0-10-0,0-3-12], [9:0-3-0,0-2-12], [14:Edge,0-0-15], [21:0-2-12,0-4-0]

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.28	16-17	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.53	17	>889	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.98	Horz(CT)	-0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.22	17-21	>875	360		
BCDL	10.0											
Weight: 1207 lb FT = 20%												

<b>LUMBER</b>	
TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* 21-20,20-17:2x8
	SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 6-21,10-17:2x4 SP
	No.2
WEDGE	Left: 2x4 SP No.3
	Right: 2x4 SP No.3

<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 7-9.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
JOINTS	1 Brace at Jt(s): 25 This truss requires both edges of the bottom chord be sheathed in the room area.

<b>REACTIONS</b> (size)	
Max Horiz	2=159 (LC 9)
Max Grav	2=3161 (LC 23), 14=3915 (LC 24)

<b>FORCES</b>	
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.	
TOP CHORD	2-3=-4269/0, 3-4=-3981/0, 4-5=-4935/0, 5-6=-4836/0, 6-7=-2383/0, 7-8=-3359/0, 8-9=-3359/0, 9-10=-2412/51, 10-11=-6075/0, 11-12=-6167/0, 12-13=-5484/0, 13-14=-5220/0
BOT CHORD	2-23=-112/3242, 22-23=0/3242, 21-22=0/3149, 20-21=0/3647, 19-20=0/3958, 19-32=0/3768, 18-32=0/3768, 17-18=0/3768, 16-17=0/3708, 15-16=0/3847, 14-15=0/3847

<b>WEBS</b>	
3-23=-7/285, 4-22=-2207/181,	
4-21=-256/1419, 21-24=0/2604, 6-24=0/2659,	
10-17=-24/2308, 10-16=-266/2123,	
12-16=-1245/127, 13-16=-39/603,	
13-15=-505/56, 24-25=-1041/46,	
10-25=-1047/0, 7-25=-44/1088, 9-25=-6/794	

#### NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 2 rows staggered at 0-9-0 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 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (10.0 psf) on member(s). 24-25, 10-25
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-21
- This truss is designed in accordance with the 2015 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.



March 20,2025

Continued on page 2

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A06	Attic Girder	1	3	I72141564
			Job Reference (optional)		

- 15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1354 lb down and 94 lb up at 20-8-0, and 1776 lb down and 91 lb up at 27-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

- 1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
- Uniform Loads (lb/ft)
- Vert: 1-7=-44, 7-9=-54, 9-14=-44, 21-26=-19, 20-21=-28, 19-20=-28, 17-19=-28, 17-29=-19, 24-25=-19, 10-25=-19
- Concentrated Loads (lb)
- Vert: 17=-1506 (F), 32=-1154 (F)

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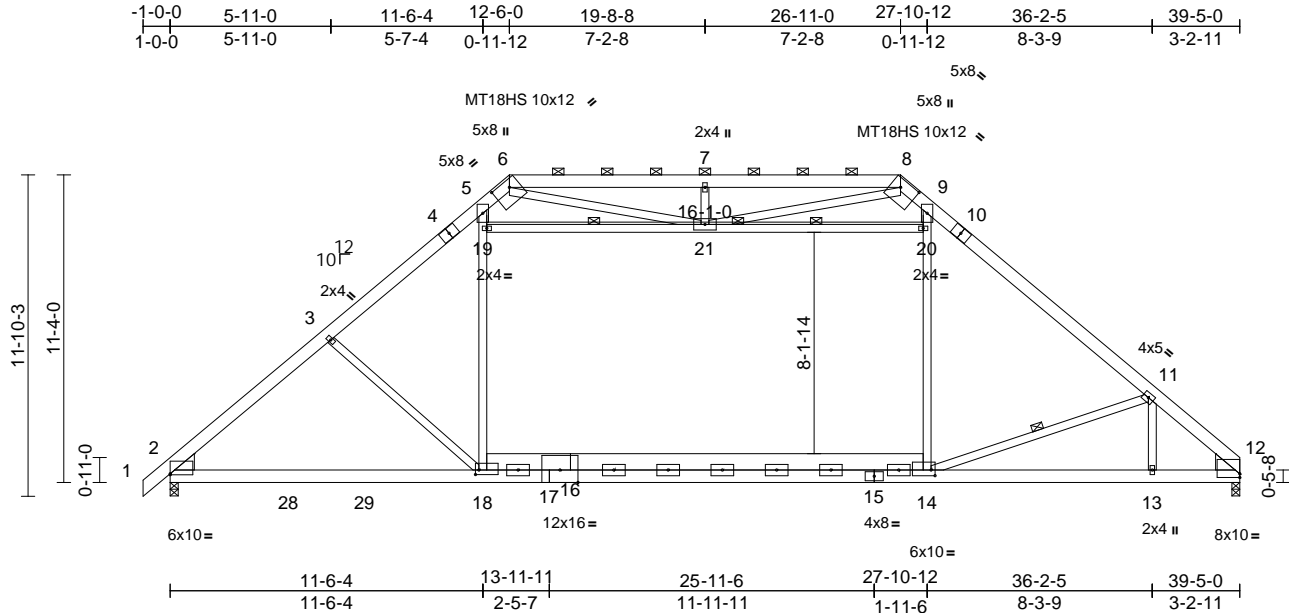
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A08	Attic	1	1	I72141565
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:37  
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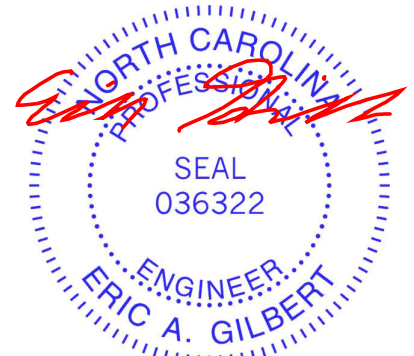
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Plate Offsets (X, Y): [2:Edge,0-0-7], [6:0-7-8,0-3-4], [8:0-7-12,0-3-8], [12:Edge,0-1-11], [14:0-1-12,0-2-8], [18:0-1-8,0-2-0]									
<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.46	14-18	>999
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.70	14-18	>672
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.06	12	n/a
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.34	14-18	>583
BCDL	10.0								360
Weight: 364 lb FT = 20%									

<b>LUMBER</b>	
TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* 18-16,16-14:2x8 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 5-18,9-14:2x4 SP No.2
WEDGE	Left: 2x8 SP No.2 Right: 2x8 SP No.2
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-8-2 max.): 6-8.
BOT CHORD	Rigid ceiling directly applied or 9-0-0 oc bracing.
WEBS	1 Row at midpt 19-21, 20-21, 11-14
JOINTS	1 Brace at Jt(s): 21 This truss requires both edges of the bottom chord be sheathed in the room area.
<b>REACTIONS</b> (size) 2=0-3-8, 12=0-3-8	
Max Horiz 2=171 (LC 13)	
Max Grav 2=2240 (LC 3), 12=2129 (LC 3)	
<b>FORCES</b> (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/48, 2-3=-3019/0, 3-5=-2800/8, 5-6=-1692/98, 6-7=-2549/107, 7-8=-2549/107, 8-9=-1684/99, 9-11=-2822/0, 11-12=-2797/53
BOT CHORD	2-18=-86/2297, 14-18=0/2037, 13-14=0/2164, 12-13=0/2164
WEBS	3-18=-384/170, 18-19=0/1205, 5-19=0/1265, 14-20=0/1123, 9-20=0/1184, 19-21=-278/42, 20-21=-293/26, 7-21=-330/142, 6-21=-60/1213, 8-21=-80/1241, 11-14=-433/210, 11-13=-350/76

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

- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) All plates are MT20 plates unless otherwise indicated.
- 7) All plates are 5x10 MT20 unless otherwise indicated.
- 8) The Fabrication Tolerance at joint 8 = 4%
- 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, with BCDL = 10.0psf.
- 11) Ceiling dead load (10.0 psf) on member(s). 19-21, 20-21
- 12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-18
- 13) All bearings are assumed to be SP 2400F 2.0E .
- 14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 15) Attic room checked for L/360 deflection.

**LOAD CASE(S)** Standard



March 20,2025

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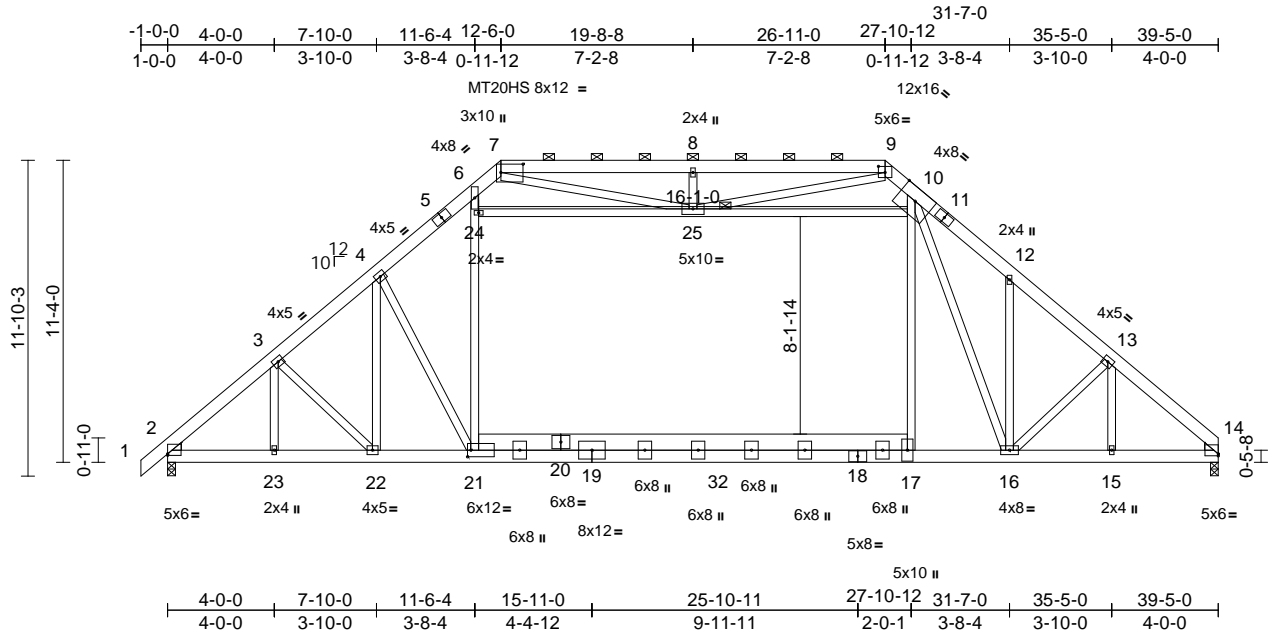
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A04	Attic Girder	1	3	I72141566
Job Reference (optional)					

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

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Thu Mar 20 11:59:49

Page: 1

ID:obau\_dR0Ce3V8RxAy8uX6HzZPtC-QtttoeP\_7MVJAuwG5ufiyP3Gk1e7wUgtDSMkOzZD\_u



Scale = 1:86.4

Plate Offsets (X, Y): [2:Edge,0-0-11], [7:0-10-0,0-3-12], [9:0-3-0,0-2-12], [14:Edge,0-0-15], [21:0-1-8,0-3-0]

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.25	17	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.49	17-21	>975	180	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	NO	WB	0.92	Horz(CT)	0.02	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.19	17-21	>999	360		
BCDL	10.0											
Weight: 1207 lb FT = 20%												

**LUMBER**  
TOP CHORD 2x6 SP No.2  
BOT CHORD 2x6 SP 2400F 2.0E \*Except\* 21-20,20-17:2x8  
SP 2400F 2.0E  
WEBS 2x4 SP No.3 \*Except\* 6-21,10-17:2x4 SP  
No.2  
WEDGE Left: 2x4 SP No.3  
Right: 2x4 SP No.3

**BRACING**  
TOP CHORD Structural wood sheathing directly applied or  
6-0-0 oc purlins, except  
2-0-0 oc purlins (6-0-0 max.): 7-9.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc  
bracing.  
JOINTS 1 Brace at Jt(s): 25  
This truss requires both edges of the bottom  
chord be sheathed in the room area.

**REACTIONS** (size) 2=0-3-8, 14=0-3-8  
Max Horiz 2=159 (LC 9)  
Max Grav 2=3238 (LC 23), 14=3838 (LC 24)

**FORCES**  
(lb) - Max. Comp./Max. Ten. - All forces 250  
(lb) or less except when shown.  
TOP CHORD 2-3=-4371/0, 3-4=-4105/0, 4-5=-5041/0,  
5-6=-4943/0, 6-7=-2459/0, 7-8=-3382/0,  
8-9=-3382/0, 9-10=-2304/51, 10-11=-5854/0,  
11-12=-5946/0, 12-13=-5330/0,  
13-14=-5132/0  
BOT CHORD 2-23=-111/3316, 22-23=0/3316,  
21-22=0/3250, 20-21=0/3681, 19-20=0/4020,  
19-32=0/3810, 18-32=0/3810, 17-18=0/3810,  
16-17=0/3743, 15-16=0/3782, 14-15=0/3782

**WEBS**  
3-23=-7/265, 4-22=-2150/182,  
4-21=-257/1311, 21-24=0/2744, 6-24=0/2799,  
10-17=-22/2537, 10-16=-269/1642,  
12-16=-1140/128, 13-16=-40/521,  
13-15=-416/56, 24-25=-950/47,  
10-25=-1279/0, 7-25=-146/976,  
9-25=-318/984

#### NOTES

- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x8 - 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 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Ceiling dead load (10.0 psf) on member(s). 24-25, 10-25
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 17-21
- This truss is designed in accordance with the 2015 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.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1776 lb down and 91 lb up at 20-8-0, and 1354 lb down and 94 lb up at 27-10-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- Attic room checked for L/360 deflection.



March 20,2025

Continued on page 2

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A04	Attic Girder	1	3	I72141566
Job Reference (optional)					

**LOAD CASE(S)** Standard

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

Uniform Loads (lb/ft)

Vert: 1-7=-44, 7-9=-54, 9-14=-44, 21-26=-19, 20-21=-28, 19-20=-28, 17-19=-28, 17-29=-19, 24-25=-19, 10-25=-19

Concentrated Loads (lb)

Vert: 17=-1154 (B), 32=-1506 (B)

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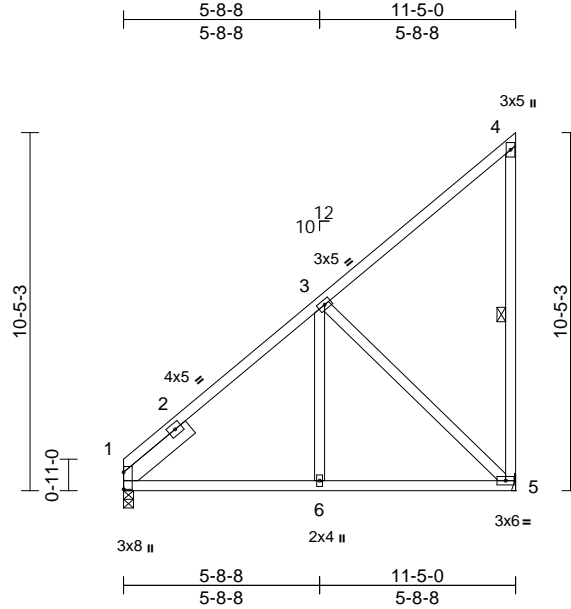
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	E01	Roof Special	1	1	I72141567
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:38  
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Page: 1



Scale = 1:67.1

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

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.03	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.45	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 78 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 2-6-0

#### 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.

WEBS 1 Row at midpt 4-5

#### REACTIONS (size) 1=0-3-8, 5= Mechanical

Max Horiz 5=218 (LC 13)  
Max Uplift 5=-49 (LC 11)  
Max Grav 1=418 (LC 2), 5=446 (LC 25)

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

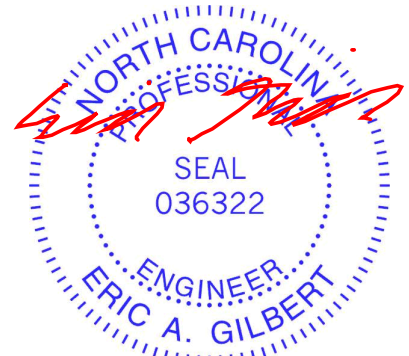
TOP CHORD 4-5=-183/129, 1-3=-314/67, 3-4=-184/176  
BOT CHORD 1-6=-70/301, 5-6=-8/301  
WEBS 3-5=-404/163, 3-6=0/235

#### NOTES

- Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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.
- All bearings are assumed to be SP No.2.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 5.

LOAD CASE(S) Standard



March 20,2025

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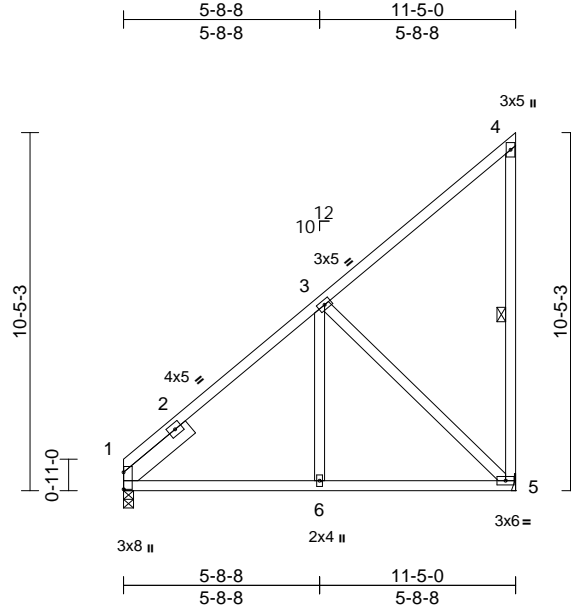
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	E02	Roof Special	1	1	I72141568
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39  
ID:TwDPRD30vvw4AY6Y1N5JRzZPxZ-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:67.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.95	Vert(LL)	-0.03	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.06	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 78 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -- 2-6-0

#### 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.

WEBS 1 Row at midpt 4-5

#### REACTIONS

(size) 1=0-3-8, 5= Mechanical  
Max Horiz 5=235 (LC 13)  
Max Uplift 5=-53 (LC 11)  
Max Grav 1=451 (LC 2), 5=481 (LC 25)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 4-5=-197/140, 1-3=-339/72, 3-4=-198/190

BOT CHORD 1-6=-76/324, 5-6=-8/324

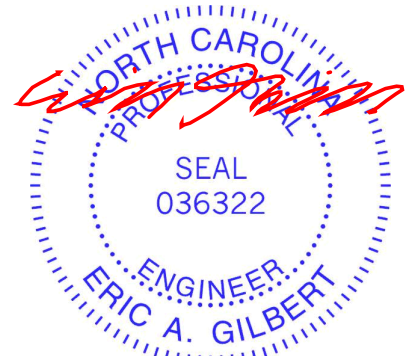
WEBS 3-5=-436/176, 3-6=0/253

#### NOTES

- Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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.
- All bearings are assumed to be SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 5.

LOAD CASE(S) Standard



March 20,2025

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Edenton, NC 27932



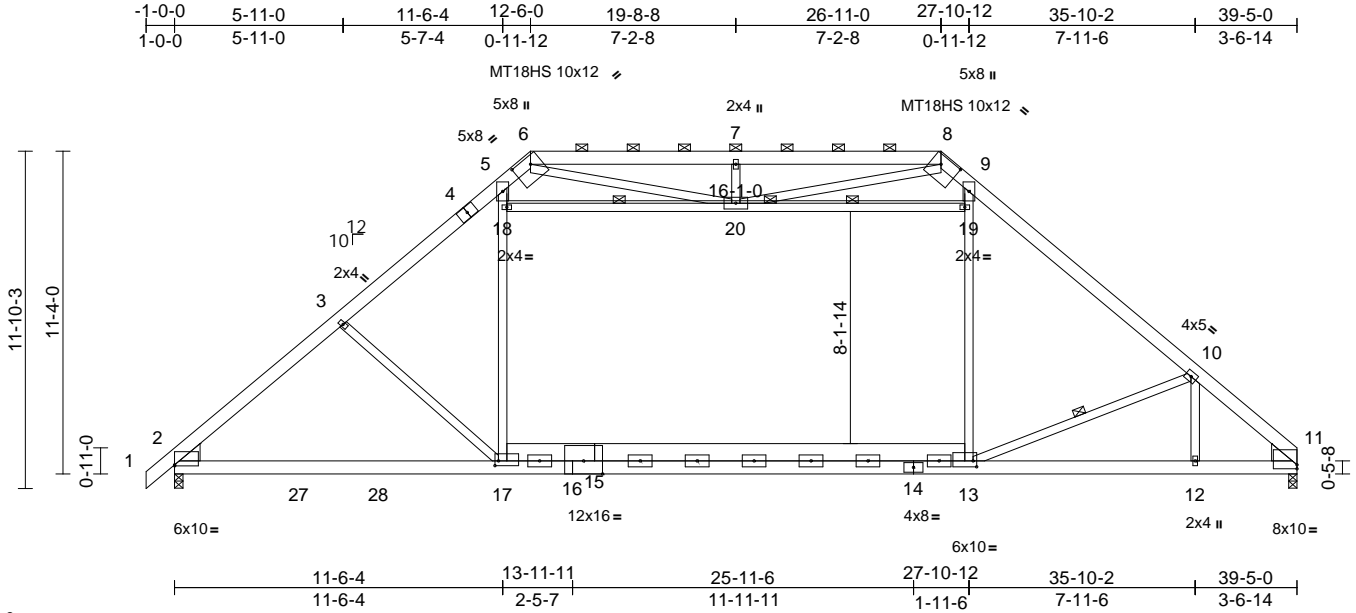
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A07	Attic	2	1	I72141569
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:37

Page: 1

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Scale = 1:80.9

Plate Offsets (X, Y): [2:Edge,0-0-7], [6:0-7-8,0-3-4], [8:0-7-12,0-3-8], [11:Edge,0-1-11], [13:0-1-8,0-2-8], [17:0-1-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.46	13-17	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.70	13-17	>674	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.06	11	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.34	13-17	>586	360		
BCDL	10.0											
											Weight: 364 lb	FT = 20%

#### LUMBER

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP 2400F 2.0E \*Except\* 17-15,15-13:2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* 5-17,9-13:2x4 SP No.2  
 WEDGE Left: 2x8 SP No.2  
 Right: 2x8 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-8-7 max.): 6-8.  
 BOT CHORD Rigid ceiling directly applied or 9-0-0 oc bracing.  
 WEBS 1 Row at midpt 18-20, 19-20, 10-13  
 JOINTS 1 Brace at Jt(s): 20  
 This truss requires both edges of the bottom chord be sheathed in the room area.

#### REACTIONS

(size) 2=0-3-8, 11=0-3-8  
 Max Horiz 2=171 (LC 13)  
 Max Grav 2=2240 (LC 3), 11=2129 (LC 3)

#### FORCES

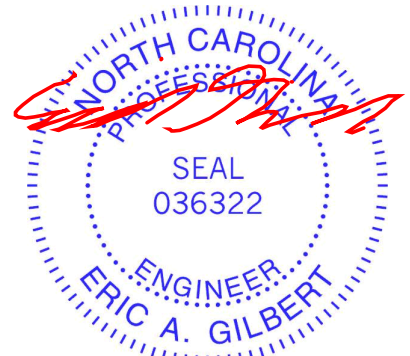
TOP CHORD 1-2=0/48, 2-3=-3019/0, 3-5=-2799/7, 5-6=-1693/99, 6-7=-2557/111, 7-8=-2557/111, 8-9=-1687/100, 9-10=-2817/0, 10-11=-2814/22  
 BOT CHORD 2-17=-85/2297, 13-17=0/2036, 12-13=0/2152, 11-12=0/2152  
 WEBS 3-17=-384/170, 17-18=0/1203, 5-18=0/1264, 13-19=0/1132, 9-19=0/1192, 18-20=-275/41, 19-20=-287/27, 7-20=-331/144, 6-20=-60/1219, 8-20=-77/1242, 10-13=-419/199, 10-12=-330/78

#### NOTES

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 5x10 MT20 unless otherwise indicated.
- The Fabrication Tolerance at joint 8 = 4%
- 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.
- Ceiling dead load (10.0 psf) on member(s). 18-20, 19-20
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 13-17
- All bearings are assumed to be SP 2400F 2.0E .
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 20,2025

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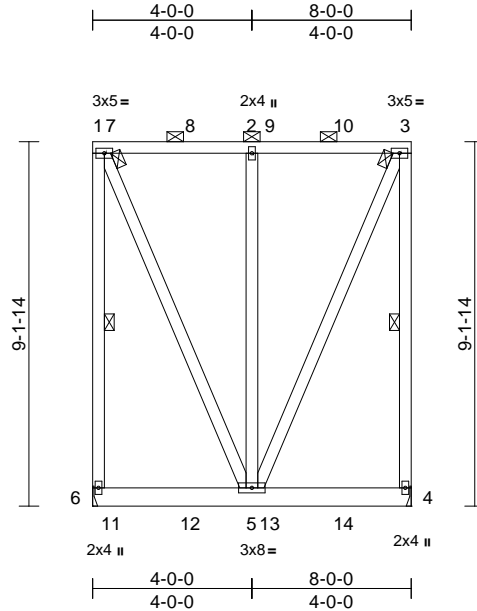
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	AG01	Flat Girder	2	<b>2</b>	I72141570
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:38  
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Page: 1



Scale = 1:57.9

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.21	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 190 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3

#### BRACING

TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-3, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

WEBS 1 Row at midpt 1-6, 3-4

**REACTIONS** (size) 4= Mechanical, 6= Mechanical  
Max Horiz 6=-183 (LC 6)  
Max Uplift 4=-84 (LC 7), 6=-80 (LC 6)  
Max Grav 4=1371 (LC 21), 6=1793 (LC 22)

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

TOP CHORD 1-6=-1248/29, 1-2=-409/8, 2-3=-409/8, 3-4=-1112/73

BOT CHORD 5-6=-164/146, 4-5=-73/54

WEBS 1-5=-102/1053, 2-5=-775/0, 3-5=-102/1053

#### 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 0-9-0 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.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.33

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0

- 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.
- All bearings are assumed to be SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 80 lb uplift at joint 6 and 84 lb uplift at joint 4.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 464 lb down and 63 lb up at 0-5-8, 457 lb down and 67 lb up at 2-5-8, and 462 lb down and 65 lb up at 4-5-8, and 428 lb down and 60 lb up at 6-3-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

#### LOAD CASE(S) Standard

- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (lb/ft)  
Vert: 1-3=-54, 4-6=-19  
Concentrated Loads (lb)  
Vert: 7=-189, 8=-173, 9=-173, 10=-173, 11=-365 (B), 12=-358 (B), 13=-363 (B), 14=-337 (B)



March 20,2025

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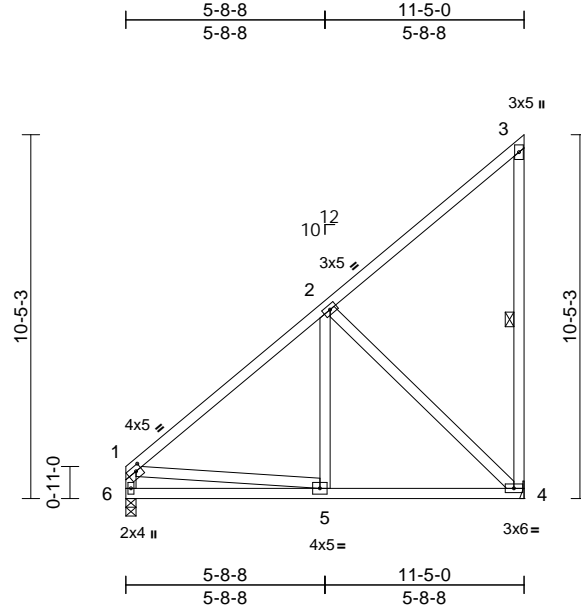
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	E03	Jack-Closed	2	1	I72141571
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39  
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Page: 1



Scale = 1:66.1

Plate Offsets (X, Y): [1:0-2-0,0-1-12]

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	0.96	Vert(LL)	0.03	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.05	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.47	Horz(CT)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 81 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 8-5-13 oc bracing.  
WEBS 1 Row at midpt 3-4

#### REACTIONS

(size) 4= Mechanical, 6=0-3-8  
Max Horiz 6=238 (LC 13)  
Max Uplift 4=56 (LC 11)  
Max Grav 4=476 (LC 25), 6=445 (LC 2)

#### FORCES

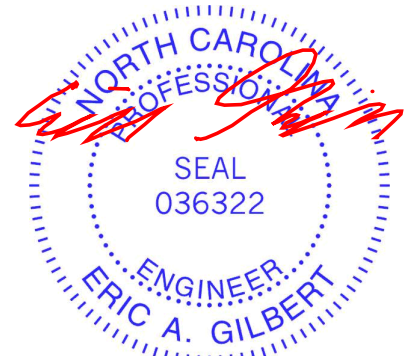
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-6=-398/62, 1-2=-485/62, 2-3=-201/191, 3-4=-199/142  
BOT CHORD 5-6=-475/537, 4-5=-208/408  
WEBS 1-5=-130/269, 2-5=0/245, 2-4=-423/166

#### NOTES

- Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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.
- All bearings are assumed to be SP No.2.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 4.

LOAD CASE(S) Standard



March 20,2025

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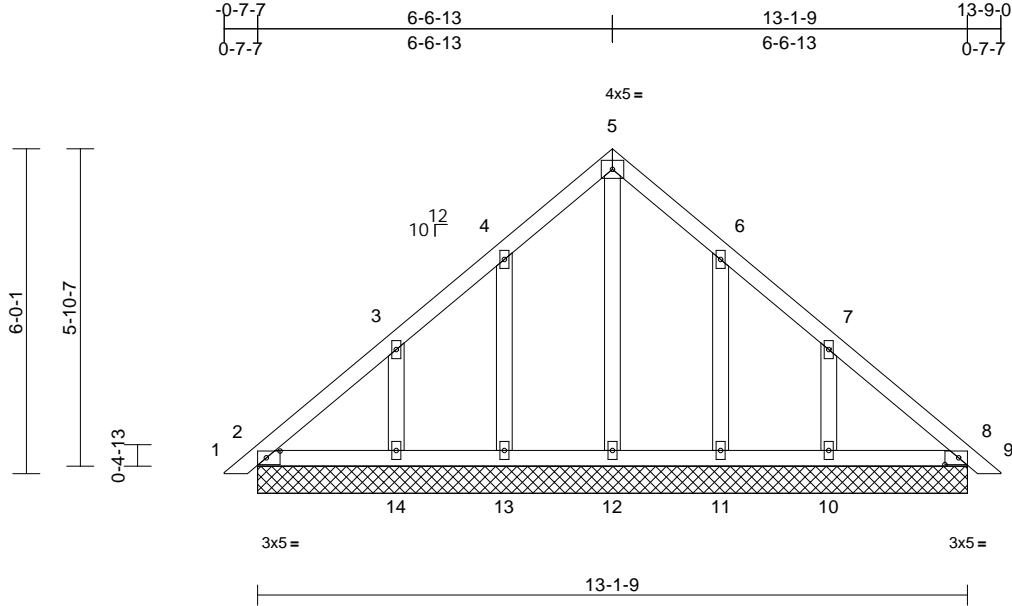
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	PB01	Piggyback	2	1	I72141572
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39

Page: 1

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Scale = 1:42.6

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

Loading	(psf)	Spacing	1-10-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	8	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 72 lb FT = 20%											

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=13-1-9, 8=13-1-9, 10=13-1-9, 11=13-1-9, 12=13-1-9, 13=13-1-9, 14=13-1-9  
Max Horiz 2=83 (LC 13)  
Max Uplift 10=31 (LC 15), 11=19 (LC 15), 13=20 (LC 14), 14=32 (LC 14)  
Max Grav 2=123 (LC 27), 8=122 (LC 2), 10=202 (LC 27), 11=142 (LC 27), 12=114 (LC 29), 13=142 (LC 26), 14=202 (LC 26)

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

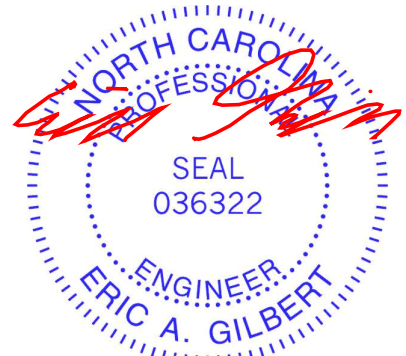
TOP CHORD 1-2=0/18, 2-3=-84/62, 3-4=-85/41, 4-5=-96/90, 5-6=-96/90, 6-7=-69/32, 7-8=-66/43, 8-9=0/18  
BOT CHORD 2-14=-47/78, 13-14=-47/78, 12-13=-47/78, 11-12=-47/78, 10-11=-47/78, 8-10=-47/78  
WEBS 5-12=-73/27, 4-13=-115/68, 3-14=-140/83, 6-11=-114/68, 7-10=-140/83

#### NOTES

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 13, 32 lb uplift at joint 14, 19 lb uplift at joint 11 and 31 lb uplift at joint 10.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



March 20,2025

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ENGINEERING BY  
**TRENCO**  
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818 Soundside Road  
Edenton, NC 27932

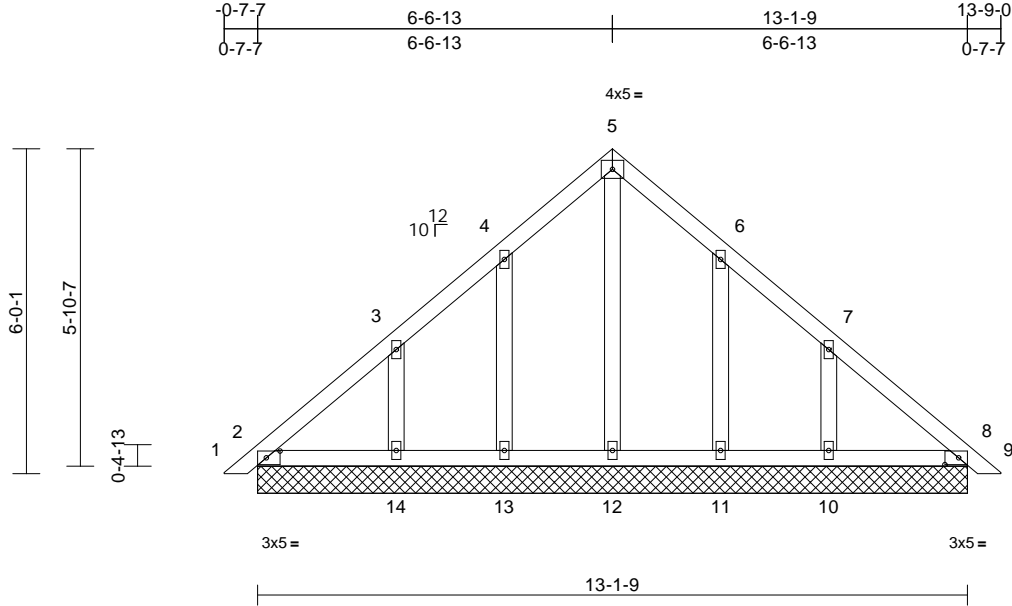


Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	PB03	Piggyback	2	<b>3</b>	I72141573
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39  
ID:0LqbdllM7ydlN4Ky7IhnvIzZPw\_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWRCDoi7J4zJC?f

Page: 1



Scale = 1:42.6

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

Loading	(psf)	Spacing	1-10-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.02	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	8	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 216 lb FT = 20%											

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=13-1-9, 8=13-1-9, 10=13-1-9, 11=13-1-9, 12=13-1-9, 13=13-1-9, 14=13-1-9  
Max Horiz 2=83 (LC 13)  
Max Uplift 10=31 (LC 15), 11=19 (LC 15), 13=20 (LC 14), 14=31 (LC 14)  
Max Grav 2=123 (LC 27), 8=121 (LC 2), 10=202 (LC 27), 11=142 (LC 27), 12=115 (LC 29), 13=142 (LC 26), 14=202 (LC 26)

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

TOP CHORD 1-2=0/18, 2-3=-83/62, 3-4=-85/42, 4-5=-96/91, 5-6=-96/91, 6-7=-68/33, 7-8=-65/43, 8-9=0/18  
BOT CHORD 2-14=-46/78, 13-14=-46/78, 12-13=-46/78, 11-12=-46/78, 10-11=-46/78, 8-10=-46/78  
WEBS 5-12=-74/28, 4-13=-114/68, 3-14=-140/84, 6-11=-114/68, 7-10=-140/84

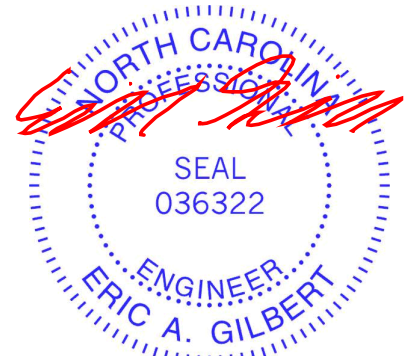
#### NOTES

- 3-ply truss to be connected together as follows:  
Top chords connected with 10d (0.131"x3") nails as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected with 10d (0.131"x3") nails 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 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 13, 31 lb uplift at joint 14, 19 lb uplift at joint 11 and 31 lb uplift at joint 10.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



March 20,2025

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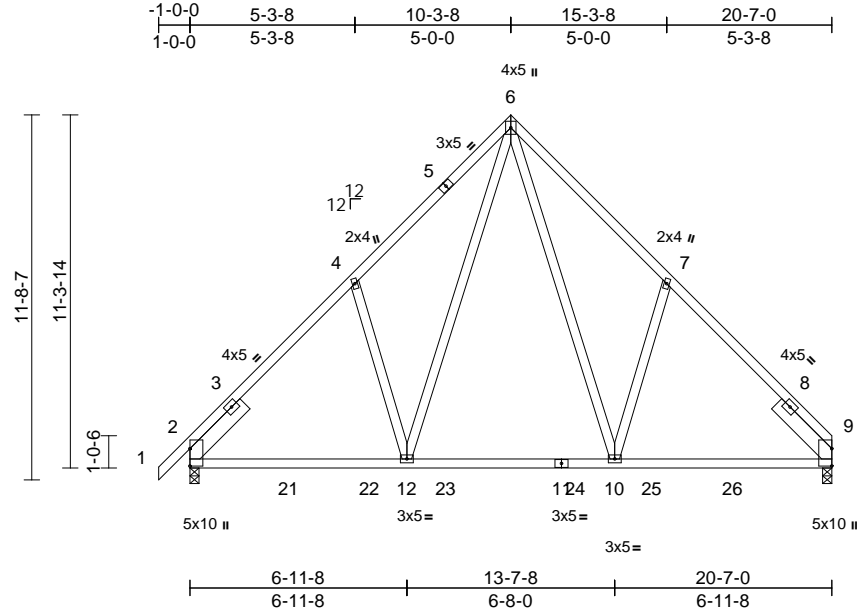
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	C02	Common	3	1	I72141574
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:38

Page: 1

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Scale = 1:73.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	-0.08	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.12	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.02	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 139 lb	FT = 20%

#### LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 10-7,12-4:2x4 SP No.3
SLIDER	Left 2x6 SP No.2 -- 2-6-0, Right 2x6 SP No.2 -- 2-6-0

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-9-1 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size)	2=0-3-8, 9=0-3-8
Max Horiz	2=170 (LC 13)
Max Grav	2=925 (LC 26), 9=876 (LC 26)

#### FORCES

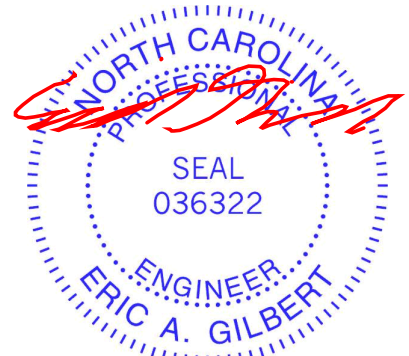
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/53, 2-4=-941/102, 4-6=-892/243, 6-7=-896/243, 7-9=-942/102
BOT CHORD	2-12=-122/698, 10-12=0/478, 9-10=-62/629
WEBS	6-10=-127/522, 7-10=-282/203, 6-12=-127/515, 4-12=-282/203

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 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.
- All bearings are assumed to be SP No.2 .

LOAD CASE(S) Standard



March 20,2025

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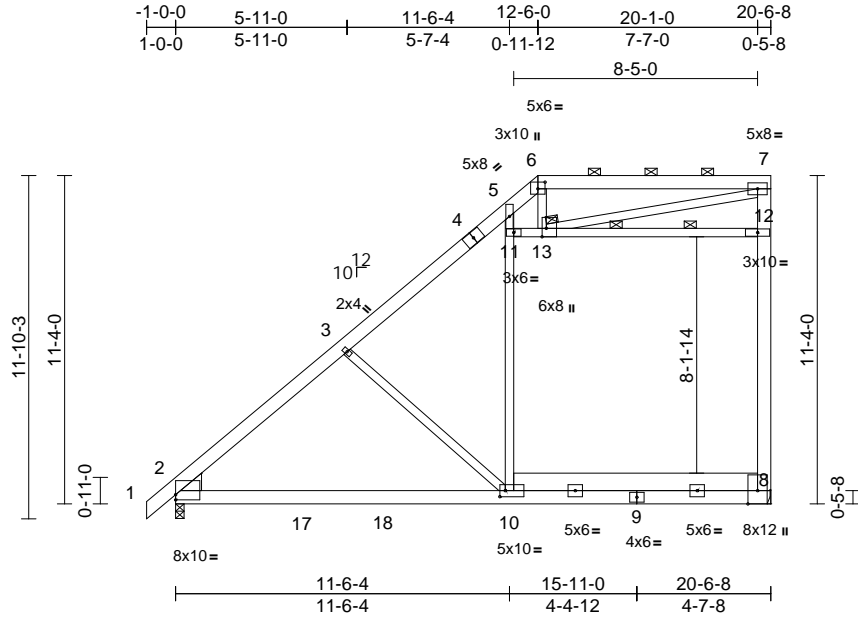
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A05	Attic	4	1	I72141575
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:36

Page: 1

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Scale = 1:79.5

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

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.93	Vert(LL)	-0.51	10-16	>475	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-1.00	10-16	>243	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.05	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.47	8-10	>449	360		
BCDL	10.0										Weight: 212 lb	FT = 20%

#### LUMBER

TOP CHORD	2x6 SP No.2
BOT CHORD	2x6 SP 2400F 2.0E *Except* 10-8:2x8 SP 2400F 2.0E
WEBS	2x4 SP No.3 *Except* 7-8:2x6 SP 2400F 2.0E, 5-10:2x4 SP No.1
WEDGE	Left: 2x8 SP No.2

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 6-7.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	2 Rows at 1/3 pts 12-13
JOINTS	1 Brace at Jt(s): 13

This truss requires both edges of the bottom chord be sheathed in the room area.

REACTIONS	(size) 2=0-3-8, 8= Mechanical
	Max Horiz 2=247 (LC 13)
	Max Grav 2=940 (LC 27), 8=1255 (LC 3)

#### FORCES

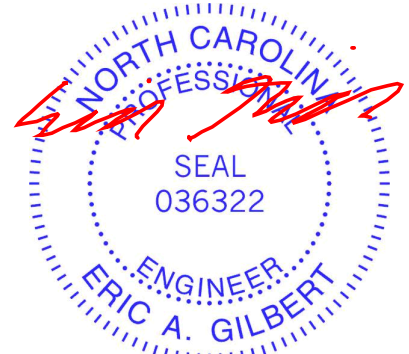
TOP CHORD	(lb) - Maximum Compression/Maximum Tension
	1-2=0/45, 2-3=-963/57, 3-5=-738/75, 5-6=-542/30, 6-7=-755/63, 8-12=-641/68, 7-12=-577/100
BOT CHORD	2-10=-445/813, 8-10=-126/364
WEBS	3-10=-550/203, 10-11=0/524, 5-11=-19/474, 11-13=-83/446, 12-13=-1279/111, 6-13=-252/160, 7-13=-122/1747

#### NOTES

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 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.
- Ceiling dead load (10.0 psf) on member(s). 11-13, 12-13
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 8-10
- Bearings are assumed to be: Joint 2 SP 2400F 2.0E , Joint 8 SP No.2 .
- Refer to girder(s) for truss to truss connections.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 20,2025

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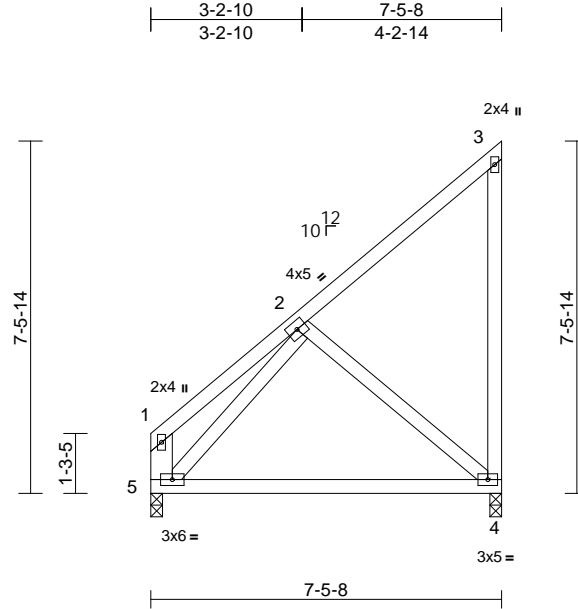
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	G01	Jack-Partial	4	1	I72141576
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39

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Scale = 1:49

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	-0.14	4-5	>607	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.28	4-5	>304	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 52 lb	FT = 20%

#### LUMBER

TOP CHORD	2x4 SP No.3
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3 *Except* 5-1:2x6 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)	4=0-3-0, 5=0-3-0
Max Horiz	5=110 (LC 14)
Max Uplift	4=-56 (LC 14)
Max Grav	4=277 (LC 25), 5=263 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-46/72, 2-3=-91/59, 1-5=-60/45
BOT CHORD	4-5=-124/159
WEBS	2-4=-207/161, 2-5=-195/0, 3-4=-100/67

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 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.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 4.

LOAD CASE(S) Standard



March 20,2025

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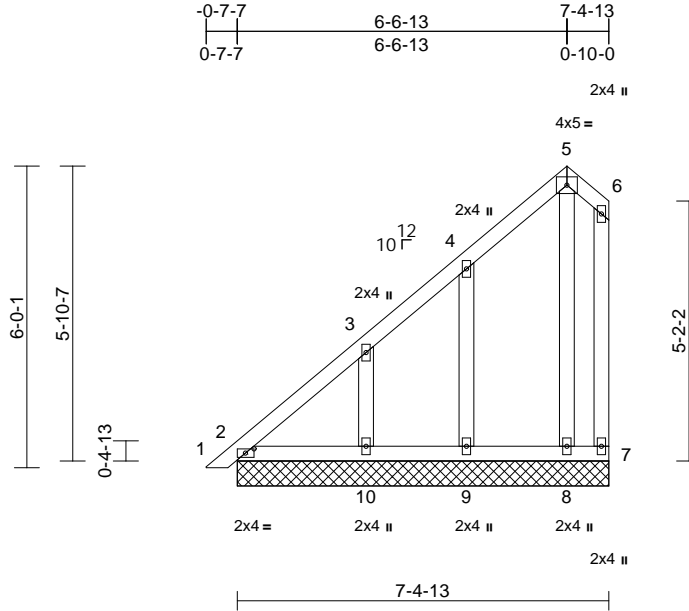


Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	PB04	Piggyback	4	1	I72141577
Job Reference (optional)					

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

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Page: 1



Scale = 1:45.9

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

Loading	(psf)	Spacing	1-10-4	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
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	7	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP							
BCDL	10.0										
Weight: 50 lb FT = 20%											

#### LUMBER

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

#### BRACING

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

REACTIONS	(size)	2=7-4-13, 7=7-4-13, 8=7-4-13, 9=7-4-13, 10=7-4-13
	Max Horiz	2=121 (LC 13)
	Max Uplift	2=-11 (LC 10), 7=-31 (LC 10), 8=-25 (LC 13), 9=-22 (LC 14), 10=-31 (LC 14)
	Max Grav	2=127 (LC 27), 7=45 (LC 13), 8=112 (LC 26), 9=151 (LC 26), 10=201 (LC 26)

#### FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=0/18, 2-3=-211/199, 3-4=-137/132, 4-5=-92/89, 5-6=-94/102, 6-7=-73/71
BOT CHORD	2-10=-63/69, 9-10=-63/69, 8-9=-63/69, 7-8=-63/69
WEBS	5-8=-126/89, 4-9=-124/85, 3-10=-142/91

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 7, 11 lb uplift at joint 2, 25 lb uplift at joint 8, 22 lb uplift at joint 9, 31 lb uplift at joint 10 and 11 lb uplift at joint 2.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



March 20,2025

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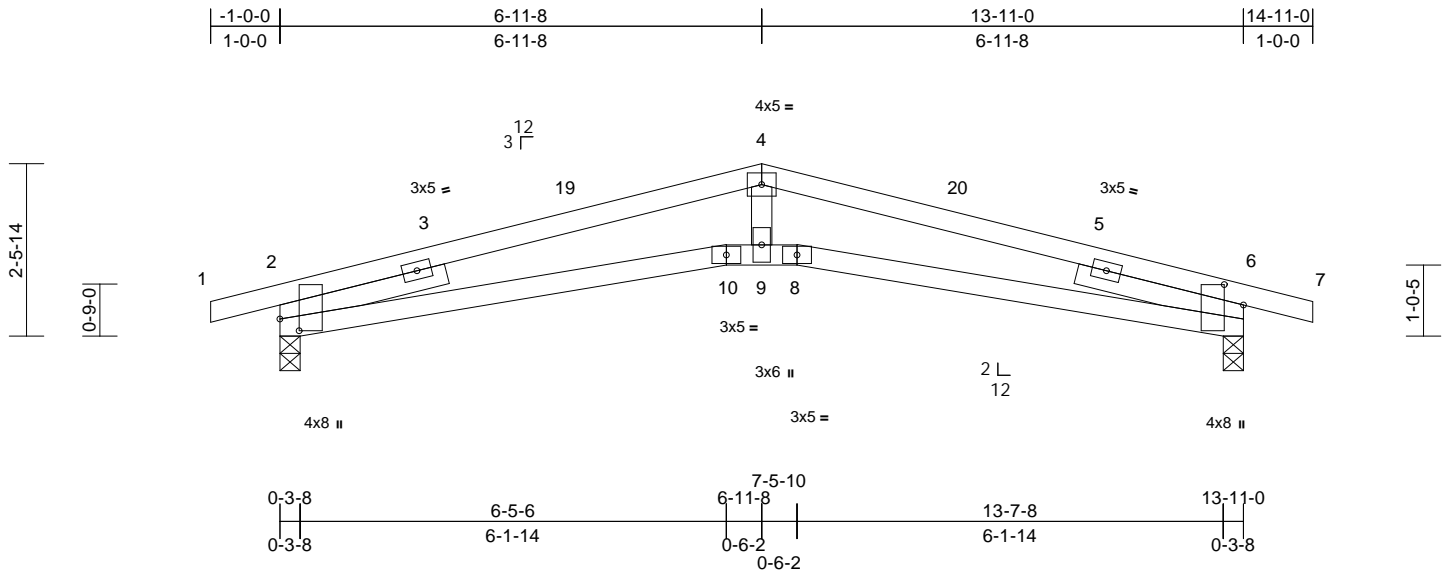
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	BP01	Roof Special	5	1	I72141578
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:38  
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Page: 1



Scale = 1:33.3

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

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.11	10	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.23	10	>739	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.09	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 54 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 3-9-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 6=0-3-8  
Max Horiz 2=-15 (LC 13)  
Max Grav 2=572 (LC 2), 6=572 (LC 2)

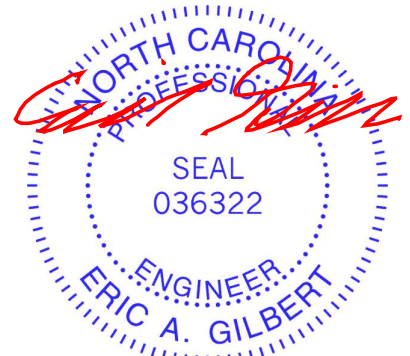
**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/17, 2-4=-1692/239, 4-6=-1692/239, 6-7=0/17  
BOT CHORD 2-10=-189/1627, 9-10=-181/1604, 8-9=-181/1604, 6-8=-189/1627  
WEBS 4-9=-3/589

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 2.00 times flat roof load of 13.9 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.
- All bearings are assumed to be SP No.2.
- Bearing at joint(s) 2, 6 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.

**LOAD CASE(S)** Standard



March 20,2025

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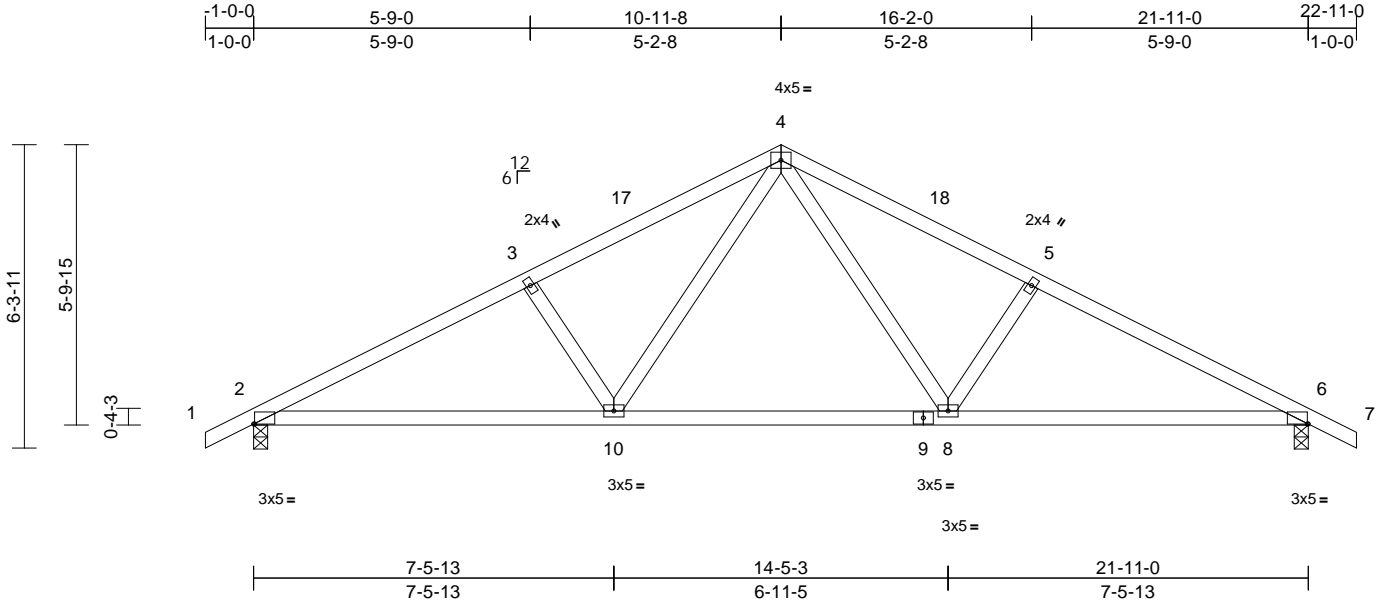
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	B02	Common	5	1	I72141579
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:38  
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Page: 1



Scale = 1:47.9

Plate Offsets (X, Y): [2:0-0-4,Edge], [6:0-0-4,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	0.40	Vert(LL)	-0.07	10-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.17	10-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.04	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 101 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 4-4-5 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 6=0-3-8

Max Horiz 2=50 (LC 14)

Max Grav 2=937 (LC 2), 6=937 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/34, 2-3=-1518/212, 3-4=-1362/225,  
4-5=-1362/225, 5-6=-1518/212, 6-7=0/34

BOT CHORD 2-10=-110/1323, 8-10=-5/873, 6-8=-113/1323

WEBS 4-8=-53/524, 5-8=-339/150, 4-10=-53/524,  
3-10=-339/150

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 3) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) All bearings are assumed to be SP No.2 .

LOAD CASE(S) Standard



March 20,2025

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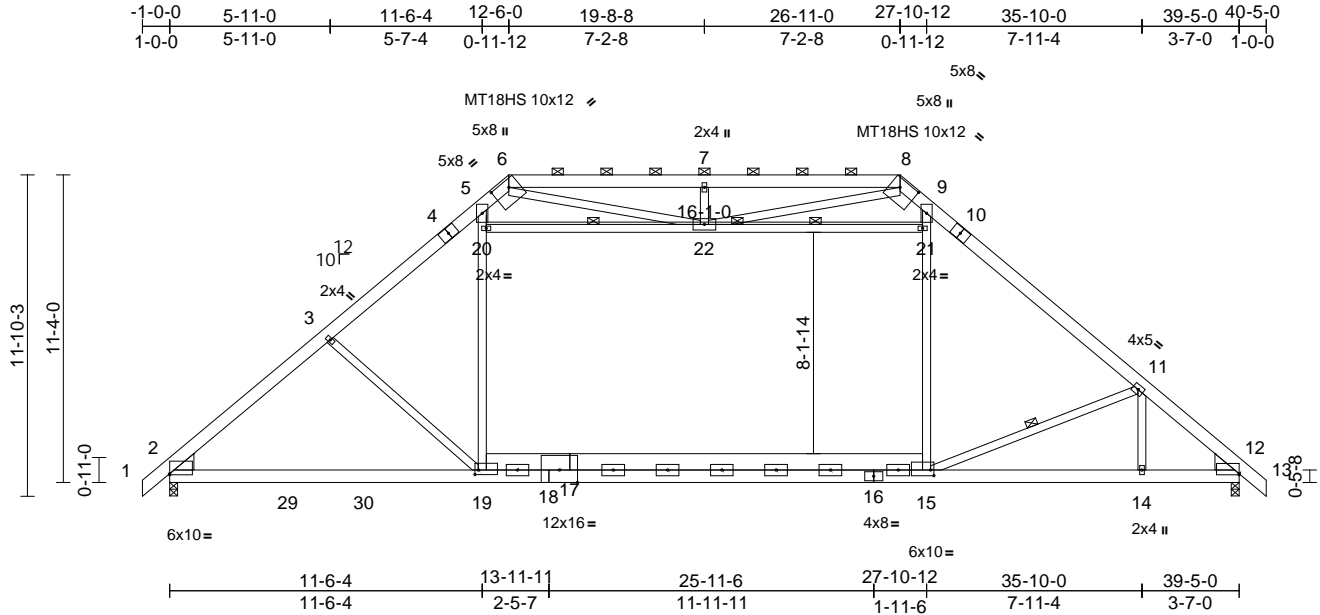
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	A02	Attic	6	1	I72141580
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:36

Page: 1

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Scale = 1:84.9

Plate Offsets (X, Y): [2:Edge,0-0-7], [6:0-7-8,0-3-4], [8:0-7-12,0-3-8], [12:Edge,0-0-7], [15:0-1-8,0-2-8], [19:0-1-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.46	15-19	>999	240	MT20	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.70	15-19	>675	180	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.97	Horz(CT)	0.06	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH		Attic	-0.34	15-19	>586	360		
BCDL	10.0										Weight: 367 lb	FT = 20%

#### LUMBER

TOP CHORD 2x6 SP No.2  
 BOT CHORD 2x6 SP 2400F 2.0E \*Except\* 19-17,17-15:2x8 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* 5-19,9-15:2x4 SP No.2  
 WEDGE Left: 2x8 SP No.2  
 Right: 2x8 SP No.2

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-8-8 max.): 6-8.  
 BOT CHORD Rigid ceiling directly applied or 9-0-0 oc bracing.  
 WEBS 1 Row at midpt 20-22, 21-22, 11-15  
 JOINTS 1 Brace at Jt(s): 22  
 This truss requires both edges of the bottom chord be sheathed in the room area.

#### REACTIONS

(size) 2=0-3-8, 12=0-3-8  
 Max Horiz 2=-175 (LC 12)  
 Max Grav 2=2240 (LC 3), 12=2180 (LC 3)

#### FORCES

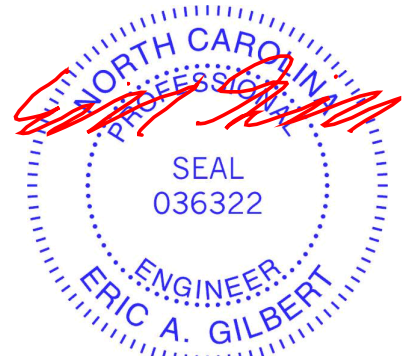
(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/48, 2-3=-3018/0, 3-5=-2798/6, 5-6=-1693/99, 6-7=-2557/110, 7-8=-2557/110, 8-9=-1686/100, 9-11=-2815/0, 11-12=-2806/0, 12-13=0/48  
 BOT CHORD 2-19=-70/2302, 15-19=0/2035, 14-15=0/2139, 12-14=0/2139  
 WEBS 3-19=-385/170, 19-20=0/1203, 5-20=0/1264, 15-21=0/1131, 9-21=0/1191, 20-22=-274/41, 21-22=-288/27, 7-22=-331/144, 6-22=-60/1219, 8-22=-77/1242, 11-15=-409/197, 11-14=-331/78

#### NOTES

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- All plates are 5x10 MT20 unless otherwise indicated.
- The Fabrication Tolerance at joint 8 = 4%
- 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.
- Ceiling dead load (10.0 psf) on member(s): 20-22, 21-22
- Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 15-19
- All bearings are assumed to be SP 2400F 2.0E .
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



March 20,2025

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

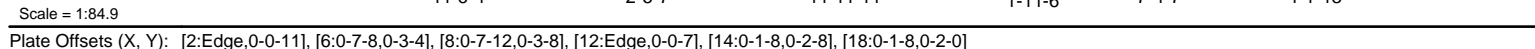
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Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:36 Page: 1  
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<b>LUMBER</b>		2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
TOP CHORD	2x6 SP No.2	
BOT CHORD	2x6 SP 2400F 2.0E *Except* 18-16,16-14:2x8 SP 2400F 2.0E	3) TCELL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0
WEBS	2x4 SP No.3 *Except* 5-18,9-14:2x4 SP No.2	4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
WEDGE	Left: 2x8 SP No.2 Right: 2x8 SP No.2	5) Provide adequate drainage to prevent water ponding. 6) All plates are MT20 plates unless otherwise indicated. 7) All plates are 5x10 MT20 unless otherwise indicated. 8) The Fabrication Tolerance at joint 8 = 8% 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
<b>BRACING</b>		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, with BCDL = 10.0psf.
TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-8-15 max.): 6-8.	11) Ceiling dead load (10.0 psf) on member(s). 19-21, 20-21
BOT CHORD	Rigid ceiling directly applied or 9-0-8 oc bracing.	12) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 14-18
WEBS	1 Row at midpt 19-21, 20-21, 11-14	13) All bearings are assumed to be SP 2400F 2.0E .
JOINTS	1 Brace at Jt(s): 21 This truss requires both edges of the bottom chord be sheathed in the room area.	14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
<b>REACTIONS</b>	(size) 2=0-3-8, 12=0-3-8 Max Horiz 2=171 (LC 13) Max Grav 2=2240 (LC 3), 12=2129 (LC 3)	15) Attic room checked for L/360 deflection.
<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/48, 2-3=-3018/0, 3-5=-2798/7, 5-6=-1695/100, 6-7=-2572/117, 7-8=-2572/117, 8-9=-1692/102, 9-11=-2811/0, 11-12=-2827/0	
BOT CHORD	2-18=-83/2296, 14-18=0/2035, 13-14=0/2139, 12-13=0/2139	
WEBS	3-18=-384/171, 18-19=0/1201, 5-19=0/1262, 14-20=0/1147, 9-20=0/1208, 19-21=-271/40, 20-21=-278/28, 7-21=-332/146, 6-21=-61/1230, 8-21=-72/1243, 11-14=-403/185, 11-13=-315/81	

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.**

WARNING – Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEL REFERENCE PAGE MIT-TP1-19-169: 1/2/2023 (FOR ONE 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Components Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



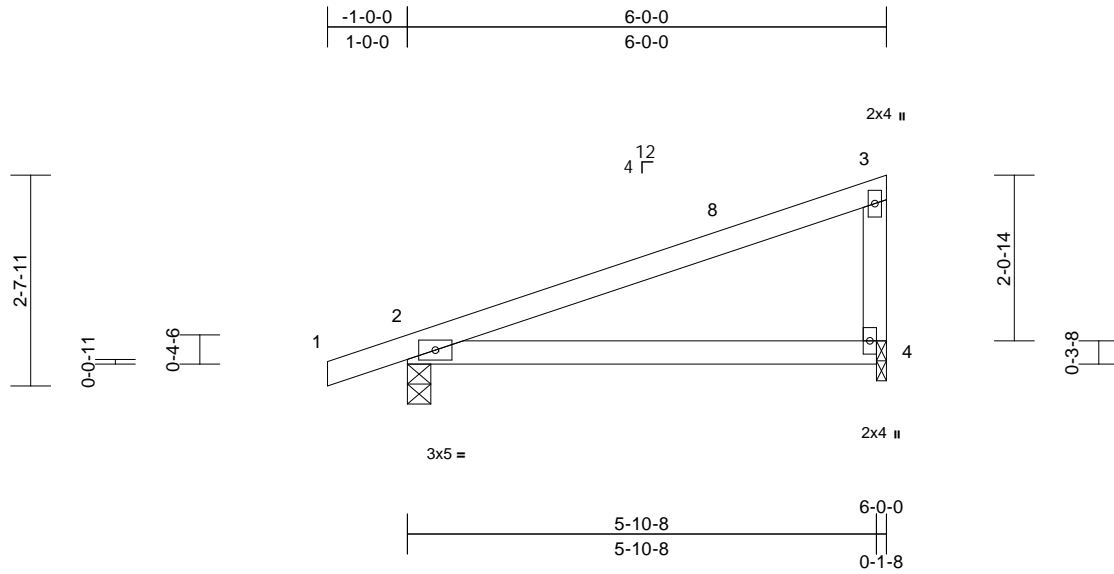
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	P02	Monopitch	9	1	I72141582
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39  
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Page: 1



Scale = 1:28.9

Loading	(psf)	Spacing	1-10-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.47	Vert(LL)	-0.05	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.11	4-7	>634	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 22 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS (size)

2=0-3-8, 4=0-1-8  
Max Horiz 2=50 (LC 15)  
Max Uplift 2=-9 (LC 12)  
Max Grav 2=277 (LC 2), 4=212 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

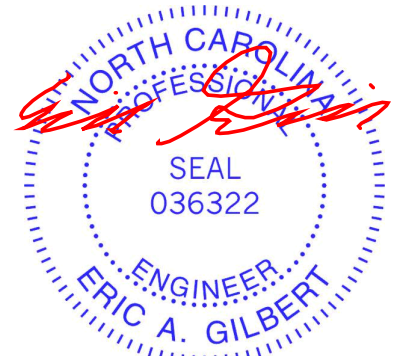
TOP CHORD 1-2=0/22, 2-3=-88/48, 3-4=-142/85  
BOT CHORD 2-4=-42/76

#### NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; 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 2.00 times flat roof load of 13.9 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) Bearings are assumed to be: Joint 2 SP No.2, Joint 4 SP No.3.
- 8) 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.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 9 lb uplift at joint 2.

LOAD CASE(S) Standard



March 20,2025

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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](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacompnents.com](http://www.sbcacompnents.com))

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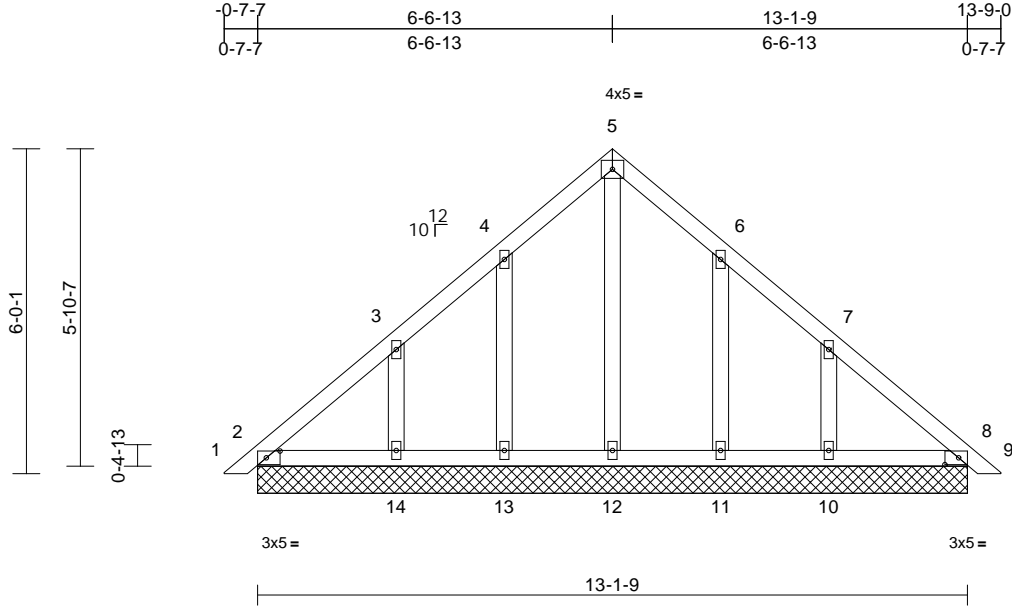
Job	Truss	Truss Type	Qty	Ply	Install 50 Magnolia Acres-Roof-Greystone FA SP 3FL
25030054-01	PB02	Piggyback	15	1	I72141583
Job Reference (optional)					

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Wed Mar 19 09:42:39

Page: 1

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Scale = 1:42.6

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

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	0.06	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 72 lb FT = 20%											

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 2=13-1-9, 8=13-1-9, 10=13-1-9, 11=13-1-9, 12=13-1-9, 13=13-1-9, 14=13-1-9  
Max Horiz 2=90 (LC 13)  
Max Uplift 10=34 (LC 15), 11=21 (LC 15), 13=21 (LC 14), 14=34 (LC 14)  
Max Grav 2=133 (LC 27), 8=131 (LC 2), 10=218 (LC 27), 11=153 (LC 27), 12=123 (LC 29), 13=153 (LC 26), 14=218 (LC 26)

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

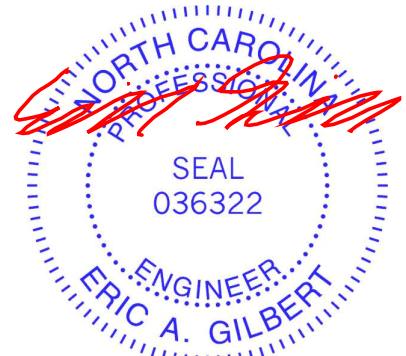
TOP CHORD 1-2=0/19, 2-3=90/67, 3-4=92/45, 4-5=104/97, 5-6=104/97, 6-7=74/35, 7-8=71/46, 8-9=0/19  
BOT CHORD 2-14=50/84, 13-14=50/84, 12-13=50/84, 11-12=50/84, 10-11=50/84, 8-10=50/84  
WEBS 5-12=79/29, 4-13=124/73, 3-14=151/89, 6-11=123/73, 7-10=151/89

#### NOTES

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

- Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 13, 34 lb uplift at joint 14, 21 lb uplift at joint 11 and 34 lb uplift at joint 10.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

**LOAD CASE(S)** Standard



March 20,2025

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

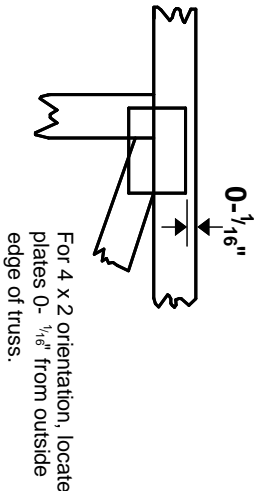
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

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# Symbols

## PLATE LOCATION AND ORIENTATION



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

## PLATE SIZE

**4 X 4**

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

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

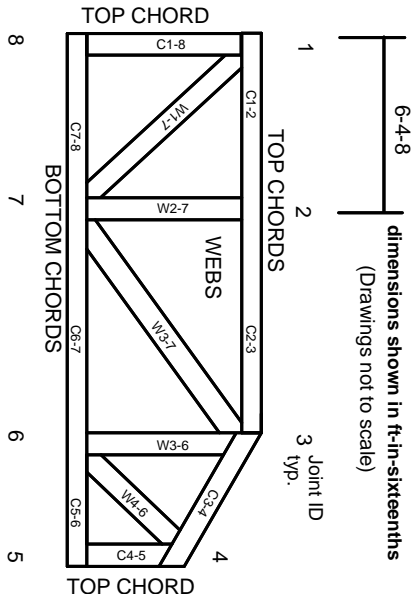
## BEARING



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

**Industry Standards:**  
ANSI/TP1: National Design Specification for Metal Plate Connected Wood Truss Construction.  
DSB-22: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

# Numbering System



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

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

# Product Code Approvals

ICC-ES Reports:  
ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

# Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.  
Lumber design values are in accordance with ANSI/TP1 section 6.3. These truss designs rely on lumber values established by others.

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# General Safety Notes

**Failure to Follow Could Cause Property Damage or Personal Injury**

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

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