

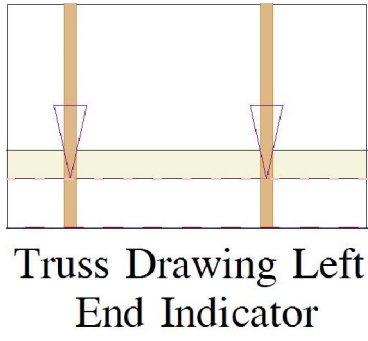
General Notes:

\*\* 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.

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

\*\* FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

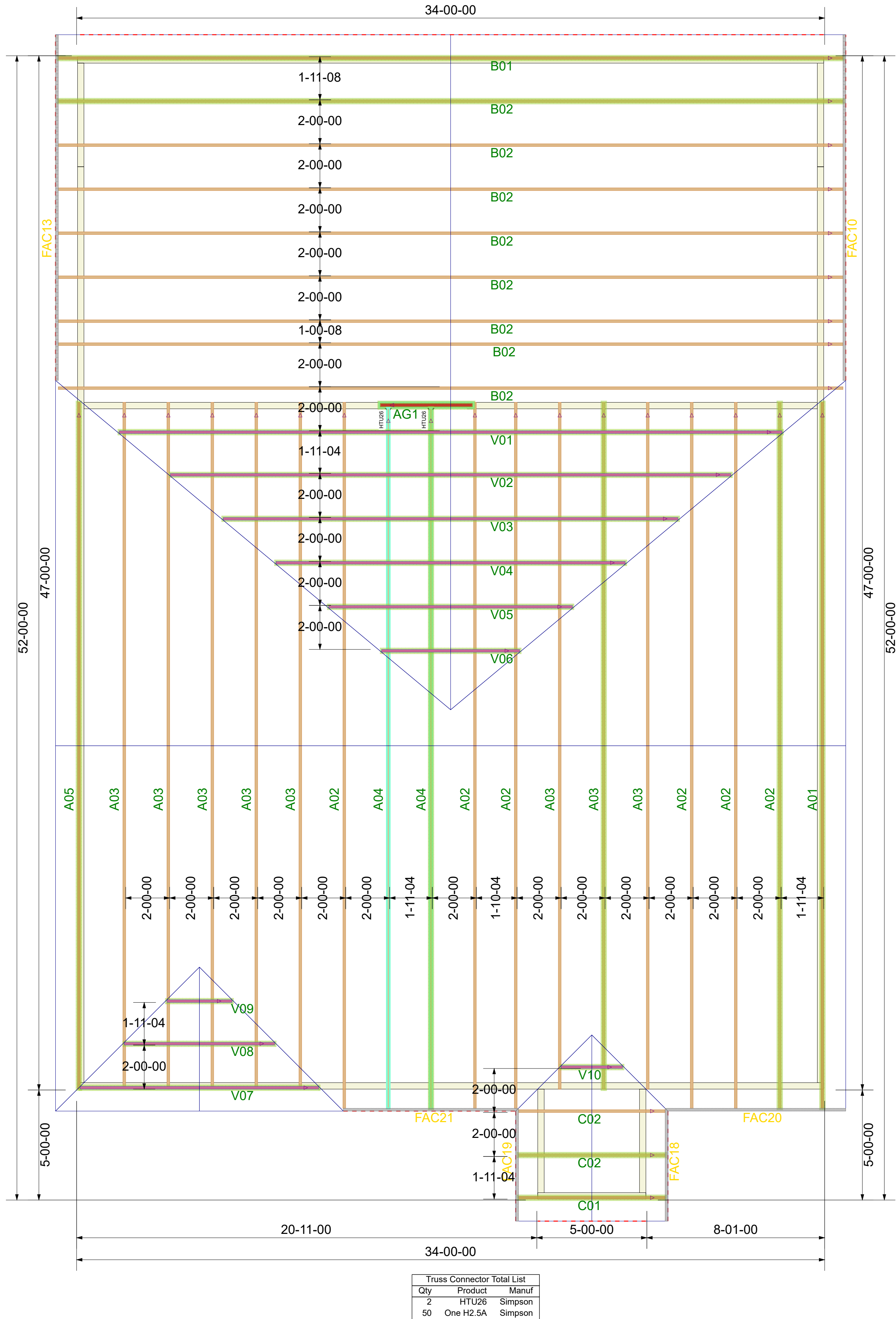


Truss Drawing Left  
End Indicator

\*\* TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS.

\*\* PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.

\*\* REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.



Truss Connector Total List		
Qty	Product	Manuf
2	HTU26	Simpson
50	One H2.5A	Simpson

\*\* GIRDERS MUST BE FULLY CONNECTED TOGETHER PRIOR TO ADDING ANY LOADS.

\*\* DIMENSIONS ARE READ AS: FOOT-INCH-SIXTEENTH.

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

Glenwood Homes

Magnolia 1 LH

COMPONENT  
PLACEMENT PLAN

Scale:  
NTS

Date:  
8/30/2024

Designer:

Project Number:  
24080158-A

Sheet Number:

1/1

A Division of the  
Carter Lumber Company

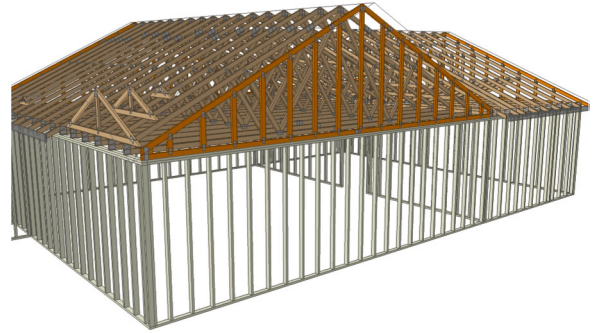
THIS IS A TRUSS PLACEMENT DIAGRAM ONLY. These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible for temporary and permanent bracing of the roof and floor systems and for the overall structure. The design of the truss support structure including headers, beams, walls, and columns is the responsibility of the building designer. For general guidance regarding the bracing, consult "Bracing of Wood Truss" available from the Truss Plate Institute, 583 D'Onofrio Drive, Madison, WI 53179.

Revisions	
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name
00/00/00	Name



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

Phone #:919-775-1450



**Builder: Glenwood Homes**

**Model: Magnolia 1 LH**  
**Lot 3 Carolina Seasons**

**THE PLACEMENT PLAN NOTES:**

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

RE: 24080158  
Magnolia 1 LH

Trenco  
818 Soundside Rd  
Edenton, NC 27932

**Site Information:**

Customer: Glenwood Homes Project Name: 24080158  
Lot/Block: 3 Model:  
Address: 79 Fern Ridge Dr Subdivision: Carolina Seasons  
City: Cameron State: NC

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

Design Code: IRC2018/TPI2014 Design Program: MiTek 20/20 8.6  
Wind Code: ASCE 7-16 Wind Speed: 130 mph  
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 20 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	I62223569	A01	11/28/2023
2	I62223570	A02	11/28/2023
3	I62223571	A03	11/28/2023
4	I62223572	A04	11/28/2023
5	I62223573	A05	11/28/2023
6	I62223574	AG1	11/28/2023
7	I62223575	B01	11/28/2023
8	I62223576	B02	11/28/2023
9	I62223577	C01	11/28/2023
10	I62223578	C02	11/28/2023
11	I62223579	V01	11/28/2023
12	I62223580	V02	11/28/2023
13	I62223581	V04	11/28/2023
14	I62223582	V03	11/28/2023
15	I62223583	V06	11/28/2023
16	I62223584	V05	11/28/2023
17	I62223585	V07	11/28/2023
18	I62223586	V08	11/28/2023
19	I62223587	V10	11/28/2023
20	I62223588	V09	11/28/2023

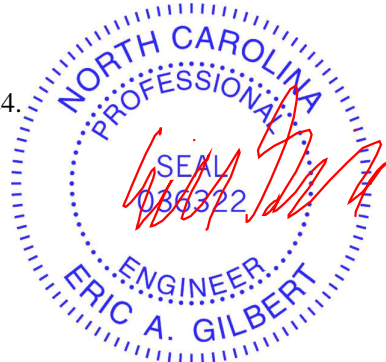
The truss drawing(s) referenced above have been prepared by  
Truss Engineering Co. under my direct supervision  
based on the parameters provided by Carter Components (Sanford, NC)).

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2024.

North Carolina COA: C-0844

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



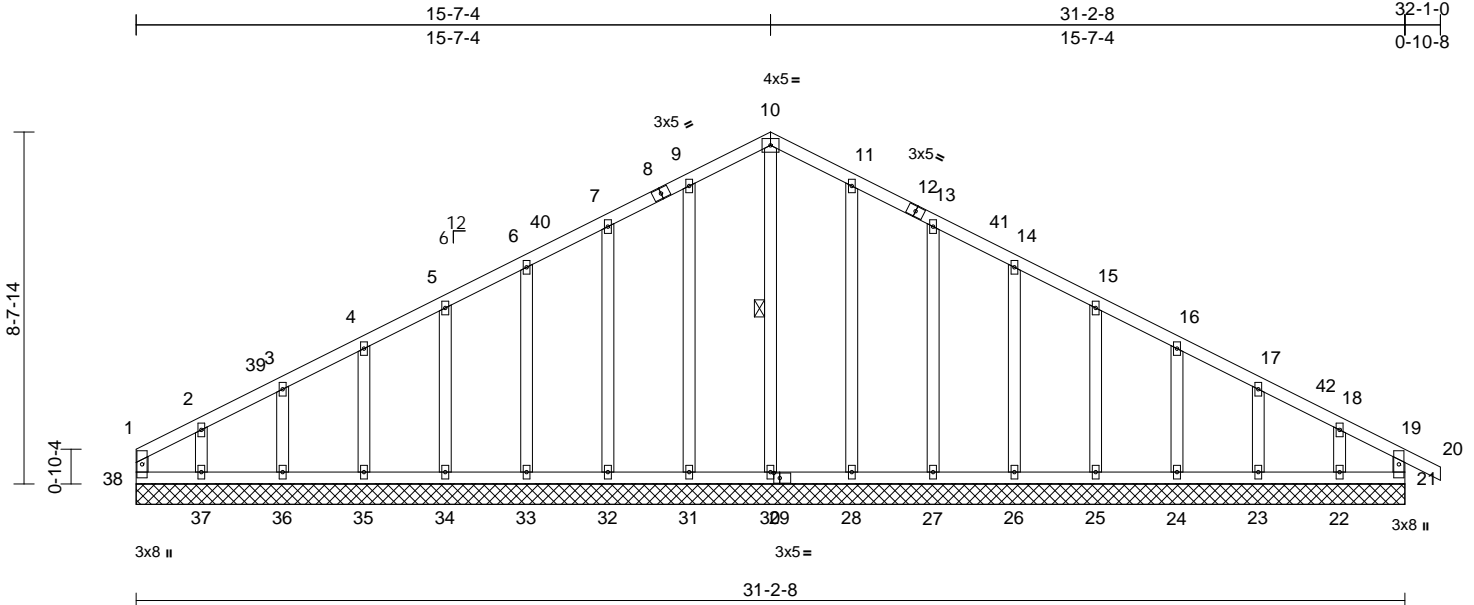
November 28, 2023

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223569
24080158	A01	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:49  
ID:hgC4zxXmScgaCz511iX0wJz8PvJ-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:56.7

Plate Offsets (X, Y): [29:0-1-12,0-1-8]												
<b>Loading</b>	(psf)	<b>Spacing</b>	1-11-4	<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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	21	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 199 lb	FT = 20%

<b>LUMBER</b>		<b>TOP CHORD</b>		1-2=-124/61, 2-3=-81/67, 3-4=-59/88, 4-5=-48/112, 5-6=-52/156, 6-7=-69/199, 7-9=-87/245, 9-10=-105/285, 10-11=-105/285, 11-13=-87/245, 13-14=-69/199, 14-15=-52/156, 15-16=-34/112, 16-17=-43/68, 17-18=-60/49, 18-19=-101/37, 19-20=0/27, 1-38=-68/28, 19-21=-114/61		<b>TOP CHORD</b>		1-2=-124/61, 2-3=-81/67, 3-4=-59/88, 4-5=-48/112, 5-6=-52/156, 6-7=-69/199, 7-9=-87/245, 9-10=-105/285, 10-11=-105/285, 11-13=-87/245, 13-14=-69/199, 14-15=-52/156, 15-16=-34/112, 16-17=-43/68, 17-18=-60/49, 18-19=-101/37, 19-20=0/27, 1-38=-68/28, 19-21=-114/61	
<b>BOT CHORD</b>		<b>BOT CHORD</b>		37-38=-34/110, 36-37=-34/110, 35-36=-34/110, 34-35=-34/110, 33-34=-34/110, 32-33=-34/110, 31-32=-34/110, 30-31=-34/110, 28-30=-34/110, 27-28=-34/110, 26-27=-34/110, 25-26=-34/110, 24-25=-34/110, 23-24=-34/110, 22-23=-34/110, 21-22=-34/110		<b>BOT CHORD</b>		37-38=-34/110, 36-37=-34/110, 35-36=-34/110, 34-35=-34/110, 33-34=-34/110, 32-33=-34/110, 31-32=-34/110, 30-31=-34/110, 28-30=-34/110, 27-28=-34/110, 26-27=-34/110, 25-26=-34/110, 24-25=-34/110, 23-24=-34/110, 22-23=-34/110, 21-22=-34/110	
<b>WEBS</b>		<b>WEBS</b>		10-30=-187/34, 9-31=-198/66, 7-32=-182/79, 6-33=-131/74, 5-34=-116/75, 4-35=-116/73, 3-36=-118/89, 2-37=-109/127, 11-28=-198/66, 13-27=-182/79, 14-26=-131/74, 15-25=-117/75, 16-24=-116/75, 17-23=-122/76, 18-22=-87/105		<b>WEBS</b>		10-30=-187/34, 9-31=-198/66, 7-32=-182/79, 6-33=-131/74, 5-34=-116/75, 4-35=-116/73, 3-36=-118/89, 2-37=-109/127, 11-28=-198/66, 13-27=-182/79, 14-26=-131/74, 15-25=-117/75, 16-24=-116/75, 17-23=-122/76, 18-22=-87/105	
<b>OTHERS</b>		<b>OTHERS</b>				<b>OTHERS</b>			
<b>BRACING</b>									
<b>TOP CHORD</b>		Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.							
<b>BOT CHORD</b>		Rigid ceiling directly applied or 6-0-0 oc bracing.							
<b>WEBS</b>		1 Row at midpt		10-30					
<b>REACTIONS</b>		(size)		21=31-2-8, 22=31-2-8, 23=31-2-8, 24=31-2-8, 25=31-2-8, 26=31-2-8, 27=31-2-8, 28=31-2-8, 30=31-2-8, 31=31-2-8, 32=31-2-8, 33=31-2-8, 34=31-2-8, 35=31-2-8, 36=31-2-8, 37=31-2-8, 38=31-2-8					
Max Horiz		38=-116 (LC 15)							
Max Uplift		21=-20 (LC 11), 22=-88 (LC 15), 23=-35 (LC 15), 24=-44 (LC 15), 25=-42 (LC 15), 26=-42 (LC 15), 27=-45 (LC 15), 28=-38 (LC 15), 31=-39 (LC 14), 32=-45 (LC 14), 33=-42 (LC 14), 34=-42 (LC 14), 35=-45 (LC 14), 36=-32 (LC 14), 37=-103 (LC 14), 38=-28 (LC 15)							
Max Grav		21=130 (LC 1), 22=118 (LC 35), 23=162 (LC 1), 24=154 (LC 22), 25=155 (LC 1), 26=170 (LC 22), 27=221 (LC 22), 28=237 (LC 22), 30=178 (LC 27), 31=237 (LC 21), 32=221 (LC 21), 33=170 (LC 21), 34=155 (LC 34), 35=155 (LC 21), 36=158 (LC 21), 37=150 (LC 28), 38=98 (LC 18)							
<b>FORCES</b>		(lb) - Maximum Compression/Maximum Tension							

3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

4) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

5) Unbalanced snow loads have been considered for this design.

6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.

7) All plates are 2x4 MT20 unless otherwise indicated.

8) Gable requires continuous bottom chord bearing.

9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

10) Gable studs spaced at 2-0-0 oc.

11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

**NOTES**

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

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-3-3, Exterior(2N) 3-3-3 to 12-5-13, Corner(3R) 12-5-13 to 18-8-11, Exterior(2N) 18-8-11 to 28-11-9, Corner(3E) 28-11-9 to 32-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

**SEAL**

036322

**ENGINEER**

**ERIC A. GILBERT**

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-3-3, Exterior(2N) 3-3-3 to 12-5-13, Corner(3R) 12-5-13 to 18-8-11, Exterior(2N) 18-8-11 to 28-11-9, Corner(3E) 28-11-9 to 32-1-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



November 28, 2023

Continued on page 2

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

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH
24080158	A01	Common Supported Gable	1	1	I62223569
Job Reference (optional)					

- 12) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 38, 20 lb uplift at joint 21, 39 lb uplift at joint 31, 45 lb uplift at joint 32, 42 lb uplift at joint 33, 42 lb uplift at joint 34, 45 lb uplift at joint 35, 32 lb uplift at joint 36, 103 lb uplift at joint 37, 38 lb uplift at joint 28, 45 lb uplift at joint 27, 42 lb uplift at joint 26, 42 lb uplift at joint 25, 44 lb uplift at joint 24, 35 lb uplift at joint 23 and 88 lb uplift at joint 22.
- 14) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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

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



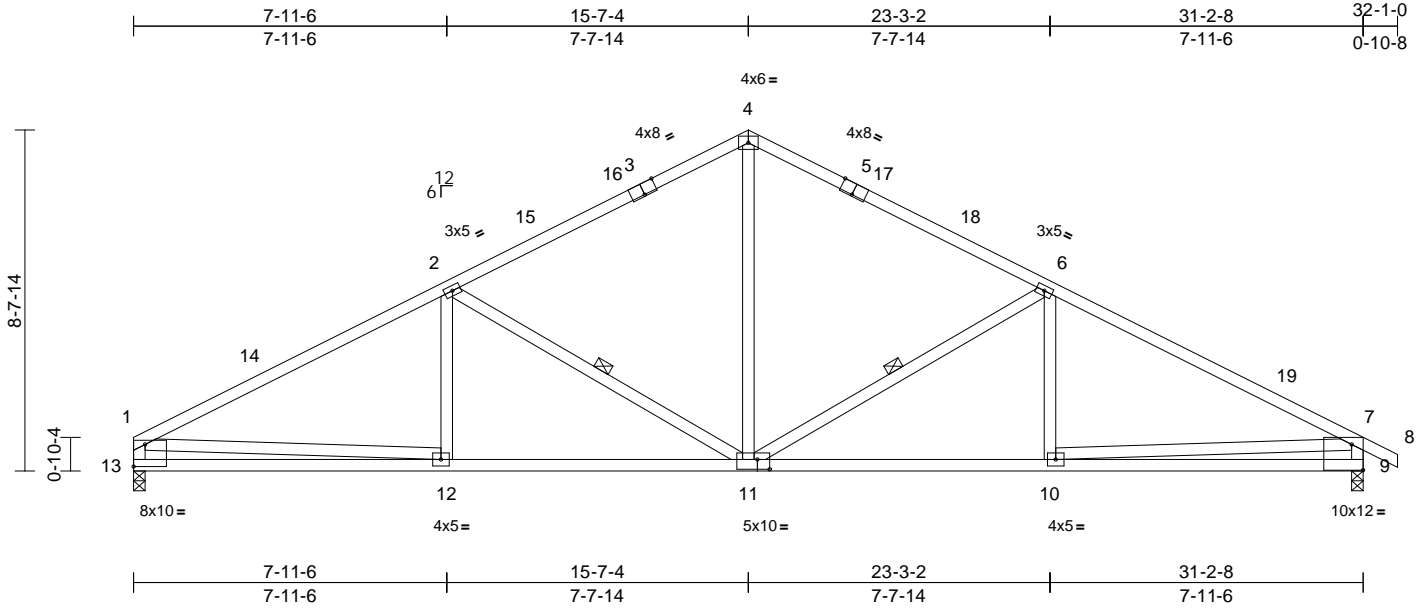
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223570
24080158	A02	Common	6	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:58.5

Plate Offsets (X, Y): [3:0-4-0,Edge], [5:0-4-0,Edge], [9:Edge,0-7-13], [11:0-3-12,0-3-0], [13:Edge,0-6-12]

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	0.97	Vert(LL)	-0.10	9-10	>999	240	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.21	9-10	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.05	9	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 174 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 6-11, 2-11

#### REACTIONS

(size) 9=0-3-8, 13=0-3-8  
Max Horiz 13=120 (LC 15)  
Max Uplift 9=137 (LC 15), 13=117 (LC 14)  
Max Grav 9=1302 (LC 22), 13=1239 (LC 21)

#### FORCES

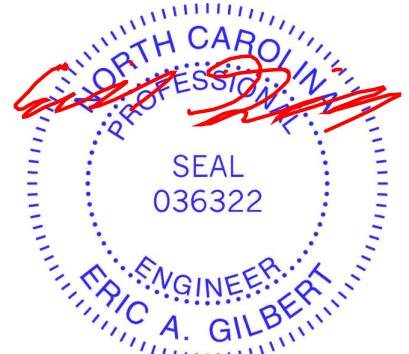
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2009/230, 2-4=-1426/251,  
4-6=-1425/250, 6-7=-2006/228, 7-8=0/27,  
1-13=-1162/169, 7-9=-1226/212  
BOT CHORD 12-13=-171/418, 10-12=-191/1719,  
9-10=-140/528  
WEBS 4-11=-35/762, 6-11=-685/208, 6-10=0/253,  
2-11=-695/212, 2-12=0/248, 1-12=-74/1362,  
7-10=-13/1244

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-3-3, Interior (1) 3-3-3 to 12-5-13, Exterior(2R) 12-5-13 to 18-8-11, Interior (1) 18-8-11 to 28-11-9, Exterior(2E) 28-11-9 to 32-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) 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) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13 and 9. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28,2023

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

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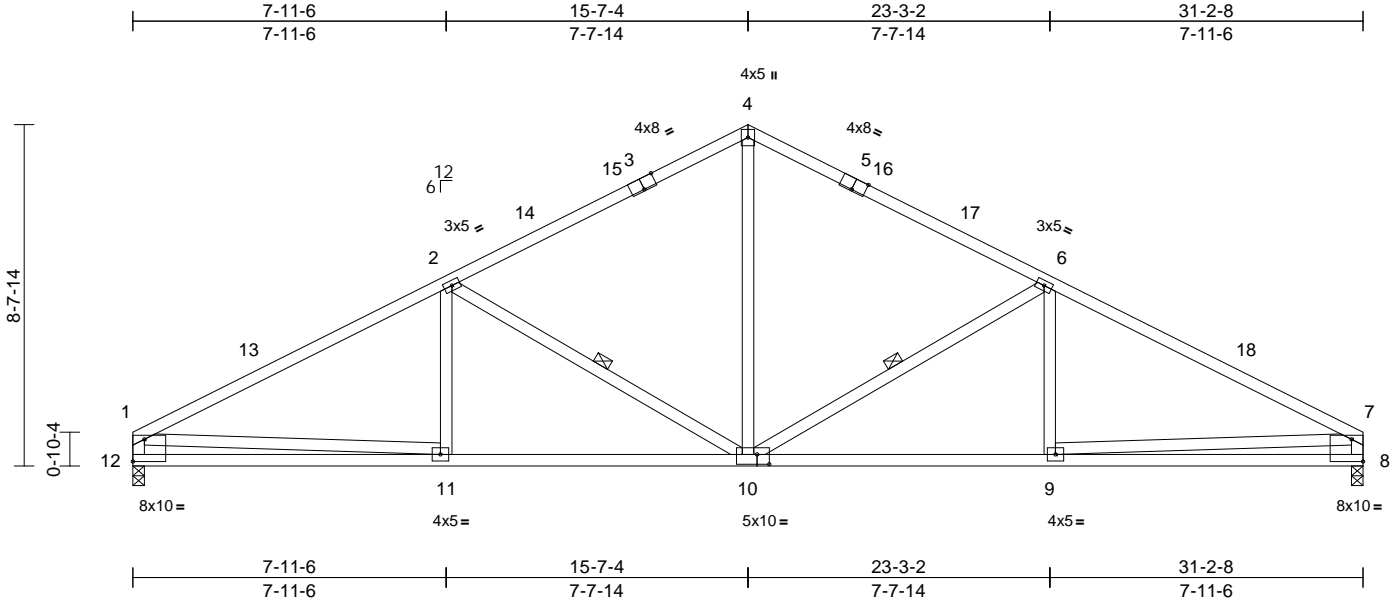
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	162223571
24080158	A03	Common	8	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:51  
ID:VqZLE\_bW2SQkxuZBOzeQ9az8PvD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:58.4

Plate Offsets (X, Y): [3:0-4-0,Edge], [5:0-4-0,Edge], [8:Edge,0-6-12], [10:0-3-12,0-3-0], [12:Edge,0-6-12]

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	0.89	Vert(LL)	-0.10	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.68	Vert(CT)	-0.21	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.05	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 172 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 8=0-3-8, 12=0-3-8  
Max Horiz 12=-111 (LC 10)  
Max Uplift 8=-117 (LC 15), 12=-117 (LC 14)  
Max Grav 8=1239 (LC 21), 12=1239 (LC 20)

#### FORCES

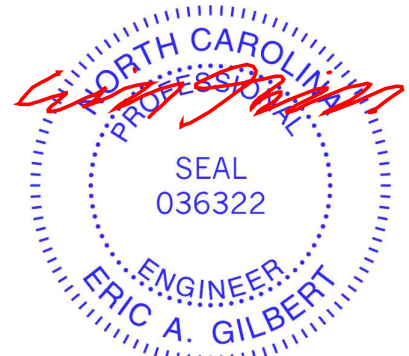
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-2011/232, 2-4=-1428/253, 4-6=-1428/253, 6-7=-2011/233, 1-12=-1163/170, 7-8=-1163/169  
BOT CHORD 11-12=-178/412, 9-11=-199/1720, 8-9=-80/396  
WEBS 4-10=-40/768, 6-10=-695/212, 6-9=0/248, 2-10=-695/212, 2-11=0/248, 1-11=-77/1364, 7-9=-62/1364

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-1-12 to 3-3-3, Interior (1) 3-3-3 to 12-5-13, Exterior(2R) 12-5-13 to 18-8-11, Interior (1) 18-8-11 to 27-11-5, Exterior(2E) 27-11-5 to 31-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 12 and 8. This connection is for uplift only and does not consider lateral forces.
- 8) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28, 2023

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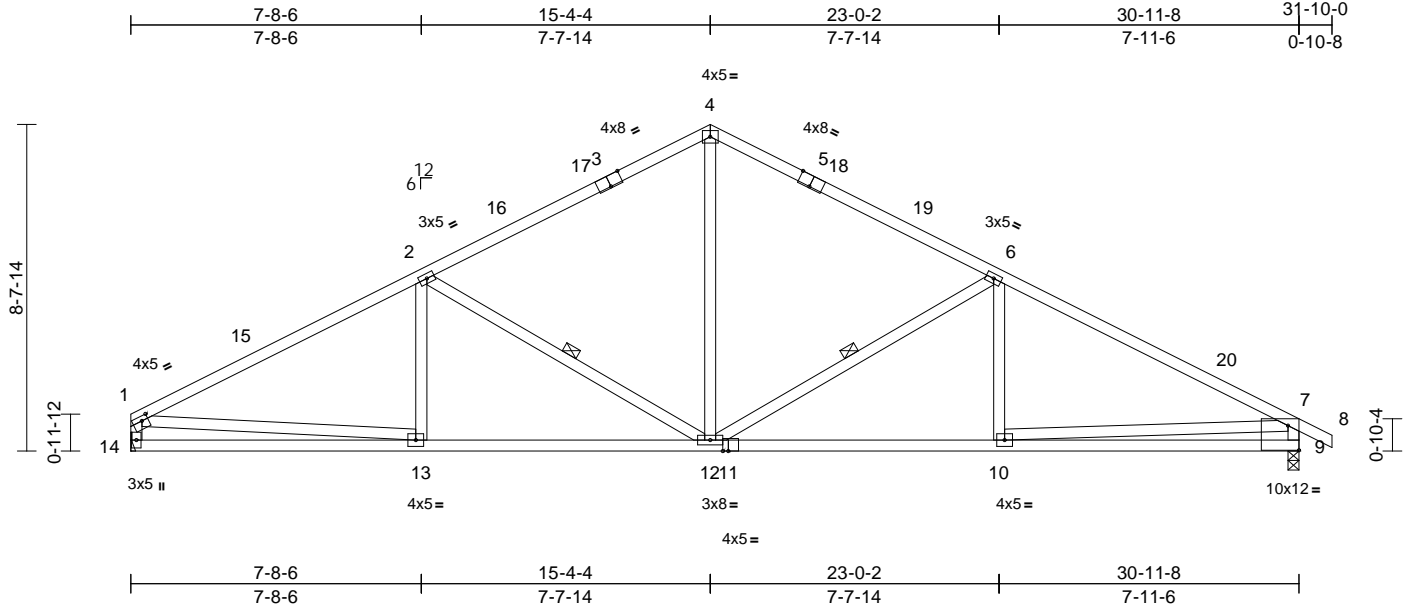
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	162223572
24080158	A04	Common	2	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:52  
ID:VqZLE\_bW2SQkxuZBOzeQ9az8PvD-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:61.1

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [3:0-4-0,Edge], [5:0-4-0,Edge], [9:Edge,0-7-13], [11:0-1-12,Edge]

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.09	9-10	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.20	9-10	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 173 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 9=0-3-8, 14= Mechanical  
Max Horiz 14=119 (LC 10)  
Max Uplift 9=133 (LC 15), 14=112 (LC 14)  
Max Grav 9=1253 (LC 22), 14=1191 (LC 21)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=1884/217, 2-4=1361/240, 4-6=1360/240, 6-7=1928/218, 7-8=0/27, 1-14=1119/161, 7-9=1179/204  
BOT CHORD 13-14=145/328, 12-13=179/1613, 10-12=73/1643, 9-10=135/510  
WEBS 4-12=32/719, 6-12=664/202, 6-10=0/246, 2-12=633/200, 2-13=0/214, 1-13=84/1359, 7-10=11/1193

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-4-12 to 3-5-14, Interior (1) 3-5-14 to 12-6-2, Exterior(2R) 12-6-2 to 18-8-6, Interior (1) 18-8-6 to 28-11-14, Exterior(2E) 28-11-14 to 32-1-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 112 lb uplift at joint 14.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28,2023

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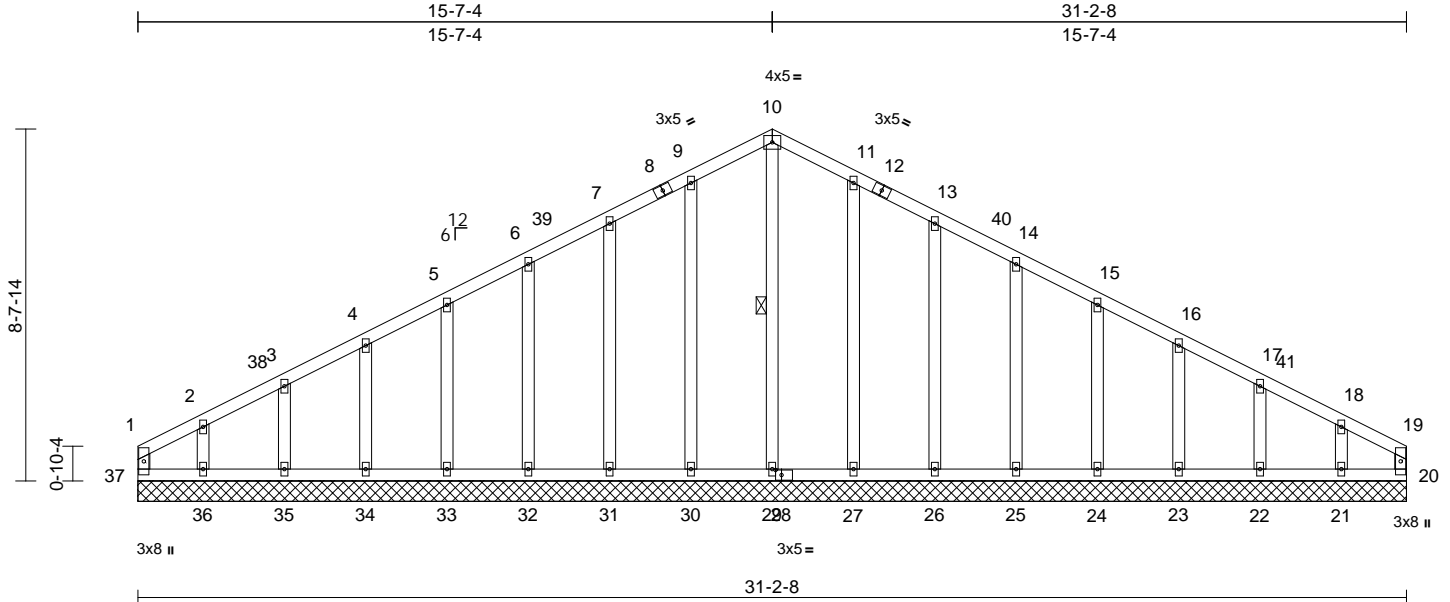
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223573
24080158	A05	Common Supported Gable	1	1	Job Reference (optional)	

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

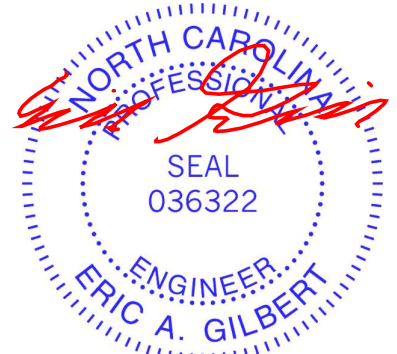
Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:52  
ID:hgC4zxXmScgaCz511iX0wJz8PvJ-RfC?PsB70Hq3NSgPqnL8w3uLTxBGKWrCD0i7J4zJC?f

Page: 1



Scale = 1:56.7									
Plate Offsets (X, Y): [28:0-1-12,0-1-8]									
<b>Loading</b>	(psf)	<b>Spacing</b>	1-11-4	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.00	20	n/a
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR					
BCDL	10.0								
Weight: 197 lb FT = 20%									

<b>LUMBER</b>		<b>TOP CHORD</b>		1-2=-128/59, 2-3=-85/66, 3-4=-65/88, 4-5=-54/111, 5-6=-55/156, 6-7=-73/199, 7-9=-91/245, 9-10=-108/285, 10-11=-108/285, 11-13=-91/245, 13-14=-73/199, 14-15=-55/156, 15-16=-37/111, 16-17=-47/68, 17-18=-67/42, 18-19=-101/33, 1-37=-72/28, 19-20=-60/12	4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
<b>BRACING</b>		<b>BOT CHORD</b>		36-37=-33/86, 35-36=-33/86, 34-35=-33/86, 33-34=-33/86, 32-33=-33/86, 31-32=-33/86, 30-31=-33/86, 29-30=-33/86, 27-29=-33/86, 26-27=-33/86, 25-26=-33/86, 24-25=-33/86, 23-24=-33/86, 22-23=-33/86, 21-22=-33/86, 20-21=-33/86	5) Unbalanced snow loads have been considered for this design.
<b>REACTIONS</b>		<b>WEBS</b>		10-29=-187/37, 9-30=-198/66, 7-31=-182/79, 6-32=-131/74, 5-33=-116/75, 4-34=-116/73, 3-35=-118/89, 2-36=-108/127, 11-27=-198/66, 13-26=-182/79, 14-25=-131/74, 15-24=-116/75, 16-23=-116/73, 17-22=-118/88, 18-21=-108/133	6) All plates are 2x4 MT20 unless otherwise indicated.
<b>FORCES</b>		<b>NOTES</b>		1) Unbalanced roof live loads have been considered for this design.	7) Gable requires continuous bottom chord bearing.
				2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-1-12 to 3-3-3, Exterior(2N) 3-3-3 to 12-5-13, Corner(3R) 12-5-13 to 18-8-11, Exterior(2N) 18-8-11 to 27-11-5, Corner(3E) 27-11-5 to 31-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60	8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
				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.	9) Gable studs spaced at 2-0-0 oc.
					10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
					11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



November 28, 2023

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223573
24080158	A05	Common Supported Gable	1	1	Job Reference (optional)	

- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 37, 6 lb uplift at joint 20, 39 lb uplift at joint 30, 45 lb uplift at joint 31, 42 lb uplift at joint 32, 42 lb uplift at joint 33, 45 lb uplift at joint 34, 32 lb uplift at joint 35, 105 lb uplift at joint 36, 38 lb uplift at joint 27, 45 lb uplift at joint 26, 42 lb uplift at joint 25, 42 lb uplift at joint 24, 44 lb uplift at joint 23, 34 lb uplift at joint 22 and 92 lb uplift at joint 21.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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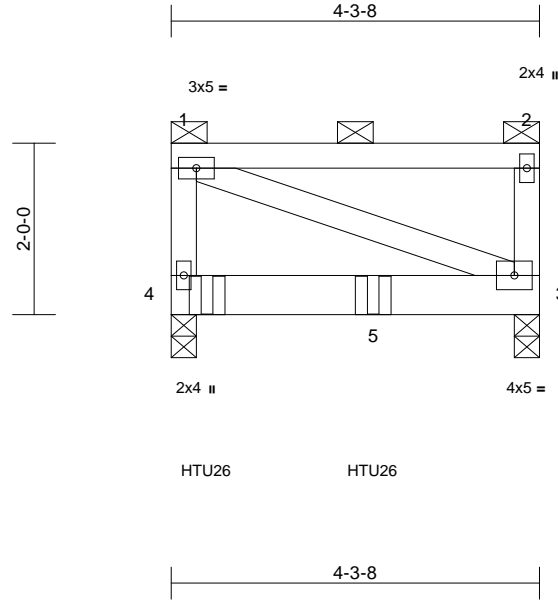
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	162223574
24080158	AG1	Flat Girder	1	2	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:53  
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Page: 1



Scale = 1:26.9

Loading	(psf)	Spacing	1-11-4	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.17	Vert(LL)	-0.02	3-4	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.05	3-4	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 52 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: 1-2, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS (size)

3=0-3-8, 4=0-3-8  
Max Horiz 4=-54 (LC 8)  
Max Uplift 3=-103 (LC 9), 4=-209 (LC 8)  
Max Grav 3=802 (LC 1), 4=1858 (LC 1)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-4=-116/59, 1-2=-20/15, 2-3=-116/48  
BOT CHORD 3-4=-47/42  
WEBS 1-3=-29/29

#### NOTES

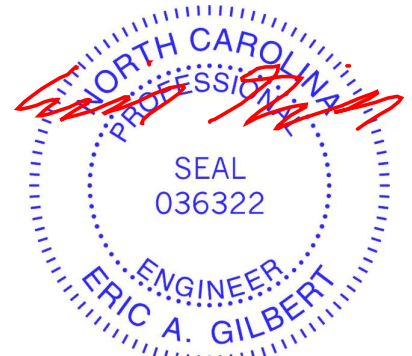
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.  
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.  
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied 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 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- 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.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 4 and 3. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- Use Simpson Strong-Tie HTU26 (20-10d Girder, 11-10dx1 1/2 Truss, Single Ply Girder) or equivalent spaced at 1-11-4 oc max. starting at 0-5-0 from the left end to 2-4-4 to connect truss(es) to back face of bottom chord.
- Fill all nail holes where hanger is in contact with lumber.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1179 lb down and 119 lb up at 0-1-12 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: 1-2=-58, 3-4=-19

Concentrated Loads (lb)  
Vert: 4=-1179 (B), 5=-1172 (B)



November 28, 2023

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

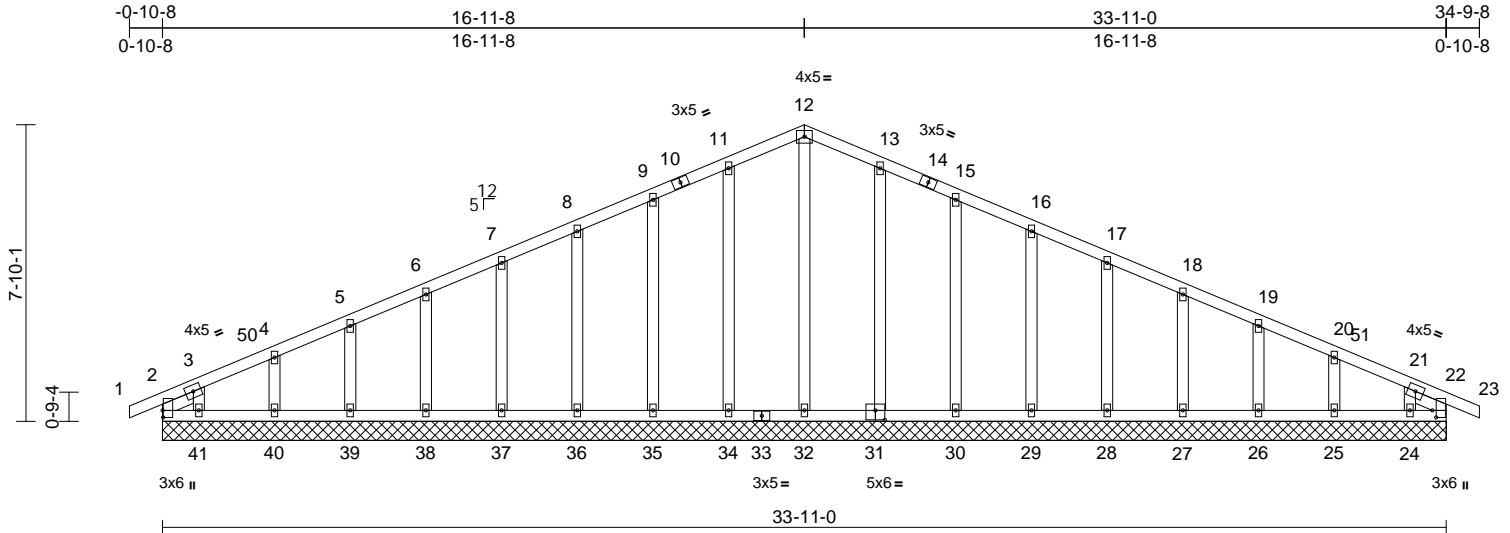
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223575
24080158	B01	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:53  
ID:9tmSBHXODvRq7gDbQ2FSWz8Pvl-RfC?PsB70Hq3NSgPqnL8w3tUXbGKwRCDoi7J4zJC7f

Page: 1



Scale = 1:60.9

Plate Offsets (X, Y): [2:0-2-4,0-0-3], [22:0-2-4,0-1-3], [31:0-3-0,0-3-0]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horz(CT)	0.01	22	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 206 lb FT = 20%											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
OTHERS 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 0-11-5, Right 2x4 SP No.3 -- 0-11-5

#### 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=33-11-0, 22=33-11-0, 24=33-11-0, 25=33-11-0, 26=33-11-0, 27=33-11-0, 28=33-11-0, 29=33-11-0, 30=33-11-0, 31=33-11-0, 32=33-11-0, 34=33-11-0, 35=33-11-0, 36=33-11-0, 37=33-11-0, 38=33-11-0, 39=33-11-0, 40=33-11-0, 41=33-11-0, 42=33-11-0, 46=33-11-0  
Max Horiz 2=-114 (LC 15), 42=-114 (LC 15)  
Max Uplift 2=-25 (LC 19), 24=-72 (LC 15), 25=-37 (LC 15), 26=-37 (LC 15), 27=-37 (LC 15), 28=-37 (LC 15), 29=-37 (LC 15), 30=-37 (LC 15), 31=-35 (LC 15), 34=-36 (LC 14), 35=-38 (LC 14), 36=-37 (LC 14), 37=-37 (LC 14), 38=-37 (LC 14), 39=-37 (LC 14), 40=-36 (LC 14), 41=-96 (LC 14), 42=-25 (LC 19)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/20, 2-3=-58/46, 3-4=-118/61, 4-5=-86/70, 5-6=-64/81, 6-7=-47/99, 7-8=-39/118, 8-9=-53/144, 9-11=-68/181, 11-12=-82/215, 12-13=-82/215, 13-15=-69/182, 15-16=-54/146, 16-17=-41/110, 17-18=-34/75, 18-19=-34/39, 19-20=-45/22, 20-21=-68/26, 21-22=-51/44, 22-23=0/20  
BOT CHORD 2-41=-28/108, 40-41=-28/108, 39-40=-28/108, 38-39=-28/108, 37-38=-28/108, 36-37=-28/108, 35-36=-28/108, 34-35=-28/108, 32-34=-28/108, 30-32=-28/108, 29-30=-27/107, 28-29=-27/107, 27-28=-27/107, 26-27=-27/107, 25-26=-27/107, 24-25=-27/107, 22-24=-27/107  
WEBS 12-32=-122/6, 11-34=-191/65, 9-35=-181/71, 8-36=-148/68, 7-37=-116/69, 6-38=-117/69, 5-39=-115/66, 4-40=-120/83, 3-41=-74/114, 13-31=-190/64, 15-30=-180/71, 16-29=-148/68, 17-28=-116/69, 18-27=-117/69, 19-26=-115/66, 20-25=-120/84, 21-24=-73/114

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-6-3, Exterior(2N) 2-6-3 to 13-6-13, Corner(3R) 13-6-13 to 20-4-3, Exterior (2N) 20-4-3 to 31-4-13, Corner(3E) 31-4-13 to 34-9-8 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.



November 28, 2023

Continued on page 2

**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTEK 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.sbcccomponents.com)

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH
24080158	B01	Common Supported Gable	1	1	I62223575
Job Reference (optional)					

- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) All plates are 2x4 MT20 unless otherwise indicated.
- 8) Gable requires continuous bottom chord bearing.
- 9) Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 11) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 2, 36 lb uplift at joint 34, 38 lb uplift at joint 35, 37 lb uplift at joint 36, 37 lb uplift at joint 37, 37 lb uplift at joint 38, 37 lb uplift at joint 39, 36 lb uplift at joint 40, 96 lb uplift at joint 41, 35 lb uplift at joint 31, 37 lb uplift at joint 30, 37 lb uplift at joint 29, 37 lb uplift at joint 28, 37 lb uplift at joint 27, 37 lb uplift at joint 26, 37 lb uplift at joint 25, 72 lb uplift at joint 24 and 25 lb uplift at joint 2.
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

**⚠ 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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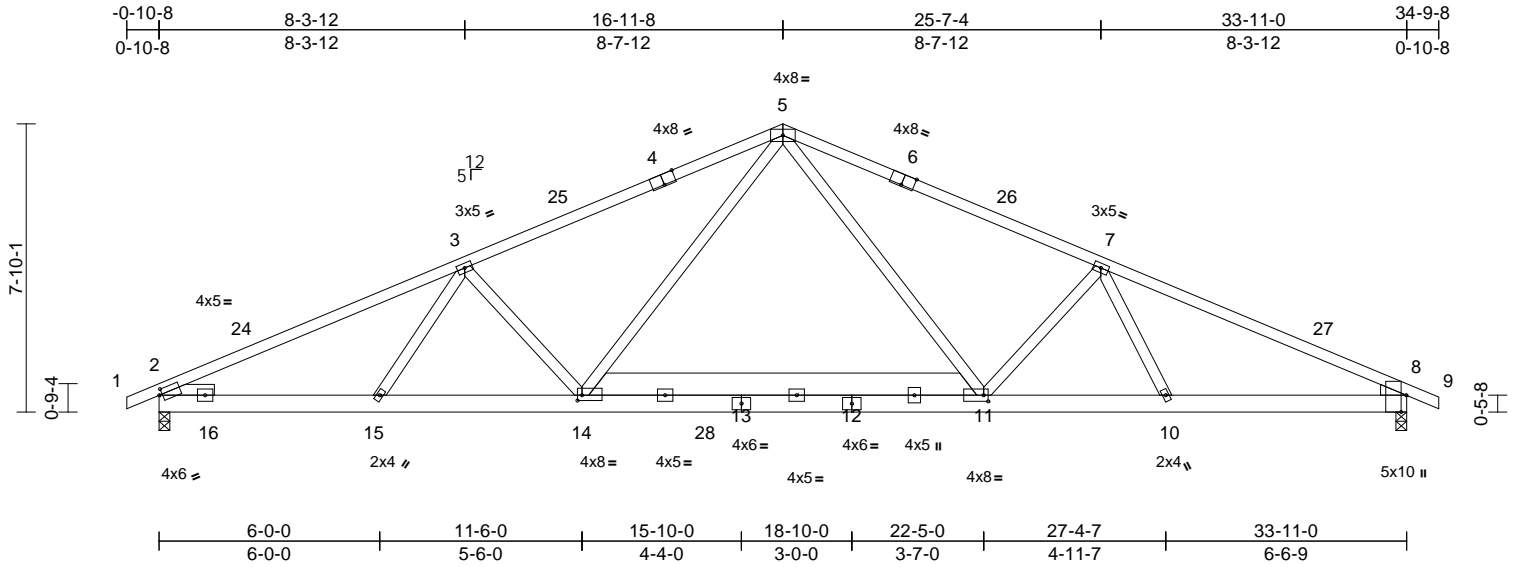
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	162223576
24080158	B02	Common	8	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:62.6

Plate Offsets (X, Y): [2:0-1-0,0-1-12], [4:0-4-0,Edge], [6:0-4-0,Edge], [8:0-5-8,Edge], [11:0-1-8,0-2-0], [14:0-1-8,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.94	Vert(LL)	-0.15	11-14	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.28	11-14	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.07	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 226 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP 2400F 2.0E  
BOT CHORD 2x6 SP No.2 \*Except\* 14-11:2x8 SP 2400F 2.0E  
WEBS 2x4 SP No.3  
WEDGE Right: 2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 1-5-15

#### BRACING

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

**REACTIONS** (size) 2=0-3-8, 8=0-3-8  
Max Horiz 2=-118 (LC 15)  
Max Uplift 2=-154 (LC 14), 8=-152 (LC 15)  
Max Grav 2=1517 (LC 3), 8=1508 (LC 3)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/24, 2-3=-2647/256, 3-5=-2439/311, 5-7=-2446/314, 7-8=-2725/270, 8-9=0/20  
BOT CHORD 2-15=-285/2380, 14-15=-280/2419, 11-14=-79/1661, 10-11=-184/2454, 8-10=-155/2454  
WEBS 5-14=-94/926, 5-11=-97/937, 7-11=-549/241, 7-10=-58/98, 3-14=-516/241, 3-15=-128/74

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-6-3, Interior (1) 2-6-3 to 13-6-13, Exterior(2R) 13-6-13 to 20-4-3, Interior (1) 20-4-3 to 31-4-13, Exterior(2E) 31-4-13 to 34-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 8) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



November 28, 2023

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ENGINEERING BY  
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A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223577
24080158	C01	Common Supported Gable	1	1	Job Reference (optional)	

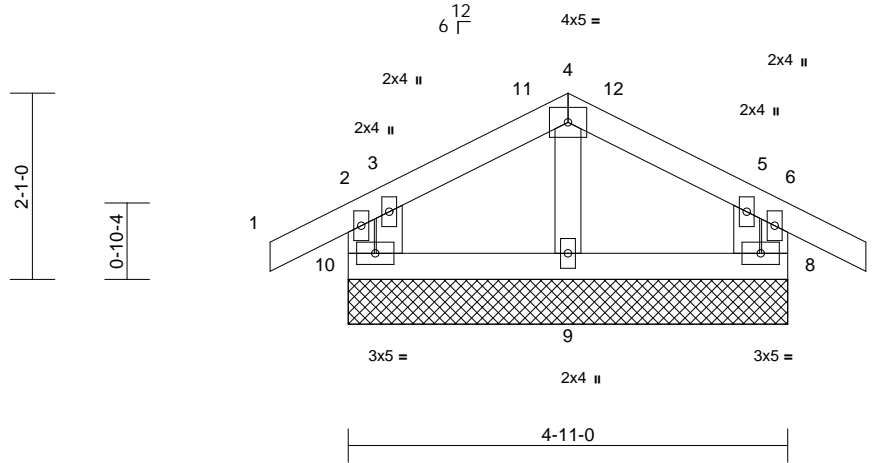
Carter Components (Sanford, NC), Sanford, NC - 27332,

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-0-10-8	2-5-8	4-11-0	5-9-8
0-10-8	2-5-8	2-5-8	0-10-8



Scale = 1:25.8

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	8	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR							
BCDL	10.0										
										Weight: 24 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 4-11-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

<b>REACTIONS</b>	(size)	8=4-11-0, 9=4-11-0, 10=4-11-0
	Max Horiz	10=39 (LC 13)
	Max Uplift	8=52 (LC 15), 10=51 (LC 14)
	Max Grav	8=235 (LC 22), 9=144 (LC 21), 10=235 (LC 21)

#### FORCES

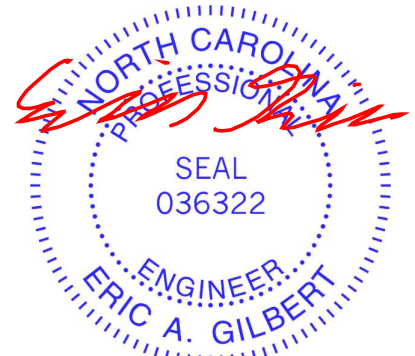
	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-10=-122/164, 1-2=0/39, 2-3=-12/39, 3-4=-68/129, 4-5=-70/127, 5-6=-12/60, 6-7=0/39, 6-8=-122/188
BOT CHORD	9-10=-15/70, 8-9=-15/70
WEBS	4-9=-91/33, 3-10=-103/106, 5-8=-113/76

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Corner(3R) 2-1-8 to 2-9-8, Corner(3E) 2-9-8 to 5-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 10 and 52 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

**LOAD CASE(S)** Standard



November 28, 2023

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

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

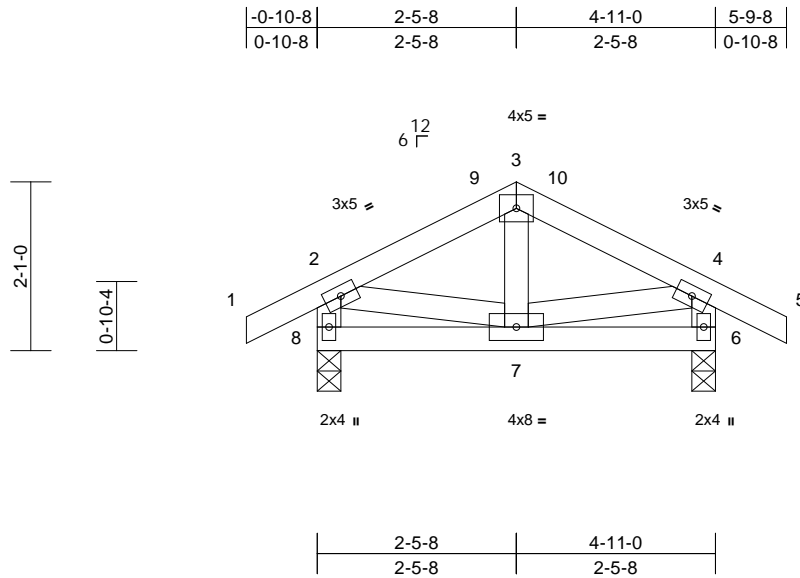
Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223578
24080158	C02	Common	2	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:55

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Scale = 1:28.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	7-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 28 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 4-11-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

#### REACTIONS

(size)	6=0-3-8, 8=0-3-8
Max Horiz	8=41 (LC 13)
Max Uplift	6=-38 (LC 15), 8=-38 (LC 14)
Max Grav	6=317 (LC 22), 8=317 (LC 21)

#### FORCES

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

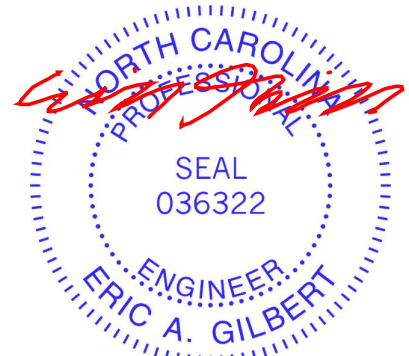
TOP CHORD	1-2=0/41, 2-3=-177/85, 3-4=-177/85, 4-5=0/41, 2-8=-298/172, 4-6=-298/167
BOT CHORD	7-8=-38/33, 6-7=-8/12
WEBS	3-7=-4/60, 2-7=0/113, 4-7=0/116

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Exterior(2R) 2-1-8 to 2-9-8, Exterior(2E) 2-9-8 to 5-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28, 2023

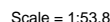
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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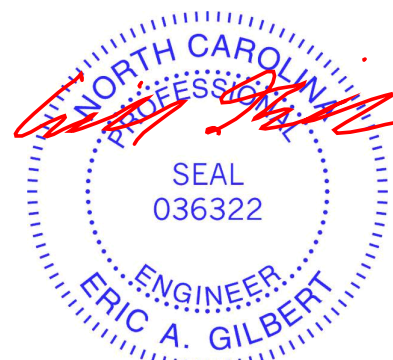
ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:55 Page: 1  
ID:5lam31loArYwV6z0iMGoHvz8PnG-RfC?PsB70Ha3NSqPanL8w3ulTXbGKWrCDoi7J4zJC?f



<b>LUMBER</b>		2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-11, Interior (1) 3-0-11 to 12-0-11, Exterior(2R) 12-0-11 to 18-0-12, Interior (1) 18-0-12 to 27-0-11, Exterior(2E) 27-0-11 to 30-0-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
TOP CHORD	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 6-0-0 oc bracing.	
<b>REACTIONS</b>		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.
(size)	1=30-0-3, 9=30-0-3, 10=30-0-3, 11=30-0-3, 12=30-0-3, 14=30-0-3, 15=30-0-3, 16=30-0-3, 17=30-0-3	4) TCELL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
Max Horiz	1=94 (LC 14)	
Max Uplift	1=10 (LC 15), 10=62 (LC 15), 11=74 (LC 15), 12=82 (LC 15), 15=83 (LC 14), 16=74 (LC 14), 17=63 (LC 14)	5) Unbalanced snow loads have been considered for this design.
Max Grav	1=86 (LC 20), 9=86 (LC 21), 10=313 (LC 36), 11=330 (LC 6), 12=465 (LC 6), 14=383 (LC 5), 15=465 (LC 5), 16=330 (LC 5), 17=313 (LC 35)	6) All plates are 2x4 MT20 unless otherwise indicated. 7) Gable requires continuous bottom chord bearing. 8) Gable studs spaced at 4-0-0 oc. 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
<b>FORCES</b>		10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-0-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
(lb) - Maximum Compression/Maximum Tension		11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 83 lb uplift at joint 15, 74 lb uplift at joint 16, 63 lb uplift at joint 17, 82 lb uplift at joint 12, 74 lb uplift at joint 11 and 62 lb uplift at joint 10.
TOP CHORD	1-2=-136/65, 2-3=-76/83, 3-4=-48/107, 4-5=-81/143, 5-6=-81/132, 6-7=-48/66, 7-8=-47/51, 8-9=-121/41	
BOT CHORD	1-17=-31/122, 16-17=-31/77, 15-16=-31/77, 14-15=-31/77, 12-14=-31/77, 11-12=-31/77, 10-11=-31/77, 9-10=-31/103	
WEBS	5-14=-217/13, 4-15=-375/129, 3-16=-236/122, 2-17=-217/103, 6-12=-375/129, 7-11=-236/122, 8-10=-217/103	12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
<b>NOTES</b>		
1) Unbalanced roof live loads have been considered for this design.		



November 28.2023



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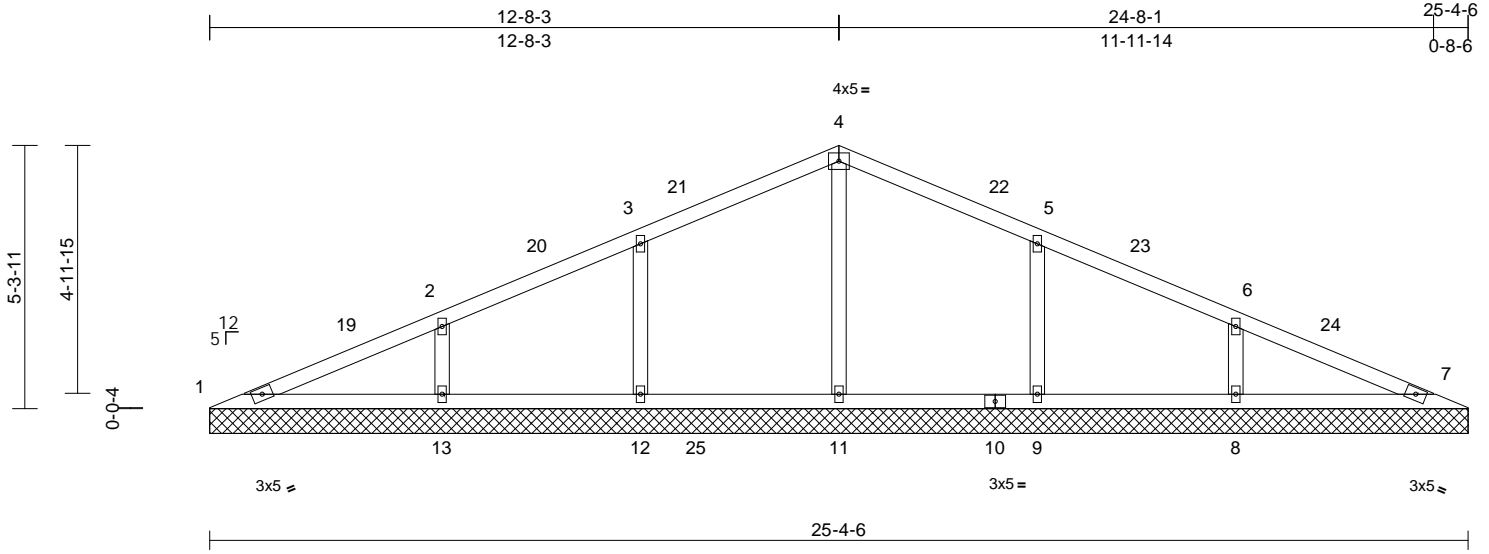
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	162223580
24080158	V02	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:55  
ID:5lqm31loArYVW6z0iIMGoHvz8PnG-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWRCDoi7J4zJC?i

Page: 1



Scale = 1:46.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	-0.01	7	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 97 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size)	1=25-4-6, 7=25-4-6, 8=25-4-6, 9=25-4-6, 11=25-4-6, 12=25-4-6, 13=25-4-6, 18=25-4-6
Max Horiz	1=85 (LC 14)
Max Uplift	1=-17 (LC 34), 8=-85 (LC 15), 9=-83 (LC 15), 12=-82 (LC 14), 13=-89 (LC 14)
Max Grav	1=105 (LC 33), 8=408 (LC 6), 9=439 (LC 6), 11=626 (LC 6), 12=449 (LC 20), 13=399 (LC 35)

#### FORCES

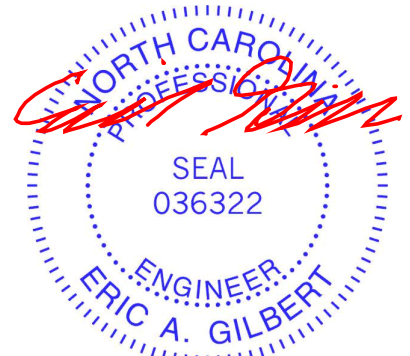
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-150/349, 2-3=-2/343, 3-4=0/340, 4-5=0/357, 5-6=0/360, 6-7=-80/350
BOT CHORD	1-13=-275/133, 12-13=-275/72, 11-12=-275/72, 9-11=-275/72, 8-9=-275/72, 7-8=-275/72
WEBS	4-11=-455/41, 3-12=-382/134, 2-13=-263/123, 5-9=-376/134, 6-8=-267/121

#### NOTES

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-10, Interior (1) 3-0-10 to 9-8-13, Exterior(2R) 9-8-13 to 15-8-13, Interior (1) 15-8-13 to 22-5-0, Exterior(2E) 22-5-0 to 25-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 17 lb uplift at joint 1, 82 lb uplift at joint 12, 89 lb uplift at joint 13, 83 lb uplift at joint 9 and 85 lb uplift at joint 8.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28, 2023

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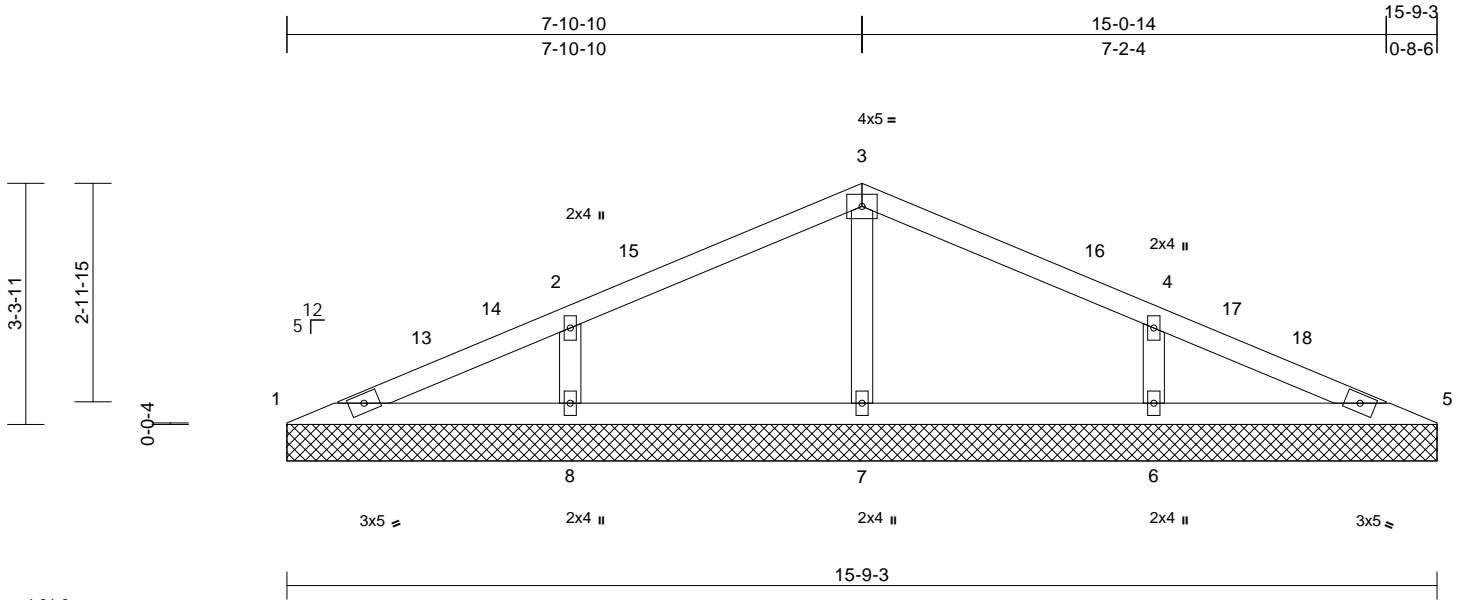
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	162223581
24080158	V04	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:56  
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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	0.32	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/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 6-0-0 oc bracing.

#### REACTIONS

(size)	1=15-9-3, 5=15-9-3, 6=15-9-3, 7=15-9-3, 8=15-9-3
Max Horiz	1=-50 (LC 15)
Max Uplift	1=-4 (LC 15), 5=-11 (LC 15), 6=-89 (LC 15), 8=-90 (LC 14)
Max Grav	1=103 (LC 20), 5=103 (LC 21), 6=496 (LC 21), 7=345 (LC 21), 8=496 (LC 20)

#### FORCES

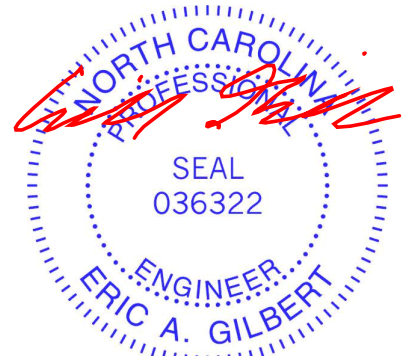
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-153/133, 2-3=-18/124, 3-4=-18/124, 4-5=-153/133
BOT CHORD	1-8=-71/134, 7-8=-71/51, 6-7=-71/51, 5-6=-71/134
WEBS	3-7=-274/94, 2-8=-393/154, 4-6=-393/154

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-10, Interior (1) 3-0-10 to 4-11-3, Exterior(2R) 4-11-3 to 10-11-3, Interior (1) 10-11-3 to 12-9-13, Exterior(2E) 12-9-13 to 15-9-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1, 11 lb uplift at joint 5, 90 lb uplift at joint 8 and 89 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28, 2023

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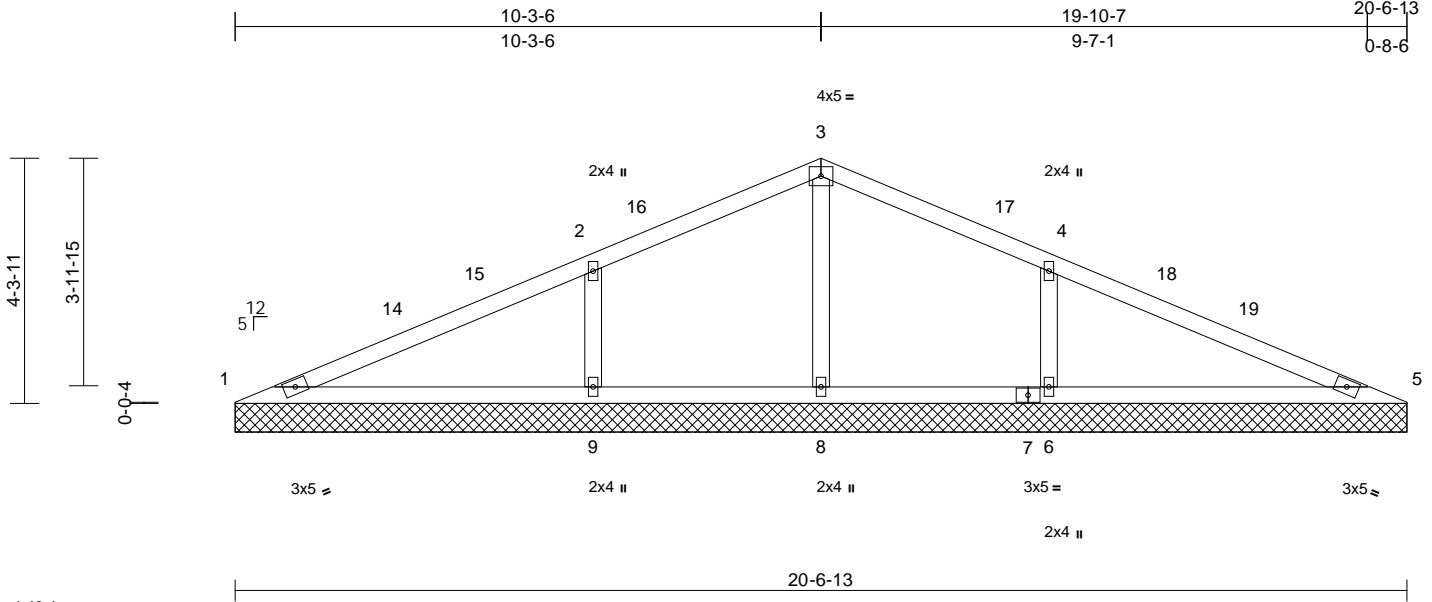
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	162223582
24080158	V03	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:56  
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Page: 1



Scale = 1:40.4

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	9	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 73 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=20-6-13, 5=20-6-13, 6=20-6-13,  
8=20-6-13, 9=20-6-13  
Max Horiz 1=66 (LC 14)  
Max Uplift 1=-4 (LC 14), 5=-16 (LC 15),  
6=-122 (LC 15), 9=-122 (LC 14)  
Max Grav 1=120 (LC 33), 5=120 (LC 34),  
6=643 (LC 21), 8=448 (LC 1),  
9=643 (LC 20)

#### FORCES

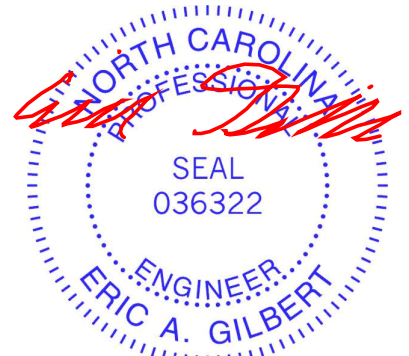
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-179/410, 2-3=0/370, 3-4=0/370,  
4-5=-179/410  
BOT CHORD 1-9=-312/160, 8-9=-312/106, 6-8=-312/106,  
5-6=-312/160  
WEBS 3-8=-424/78, 2-9=-480/162, 4-6=-480/162

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-10, Interior (1) 3-0-10 to 7-4-0, Exterior(2R) 7-4-0 to 13-4-0, Interior (1) 13-4-0 to 17-7-6, Exterior(2E) 17-7-6 to 20-7-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 4 lb uplift at joint 1, 16 lb uplift at joint 5, 122 lb uplift at joint 9 and 122 lb uplift at joint 6.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28, 2023

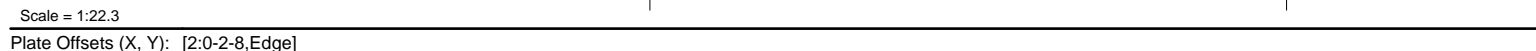
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Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:57 Page: 1  
ID:axO8GNmQx8qM6GYCG4n1q7z8PnF-RfC?PsB70Hq3NSqPanL8w3uITXhGKWrCDoi7J4zJC?f



<b>LUMBER</b>		7) Gable studs spaced at 4-0-0 oc.
TOP CHORD	2x4 SP No.2	8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
BOT CHORD	2x4 SP No.2	9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
<b>BRACING</b>		10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 25 lb uplift at joint 3.
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.	11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
<b>REACTIONS</b>	(size) 1=6-2-0, 3=6-2-0 Max Horiz 1=-18 (LC 15) Max Uplift 1=-25 (LC 14), 3=-25 (LC 15) Max Grav 1=284 (LC 20), 3=284 (LC 21)	
<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension	<b>LOAD CASE(S)</b> Standard
TOP CHORD	1-2=-582/243, 2-3=-582/243	
BOT CHORD	1-3=-210/525	

- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1 and 25 lb uplift at joint 3.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



 **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 MITER REFERENCE PAGE MIT-7473 (rev. 1/2/2023) BEFORE USE.**

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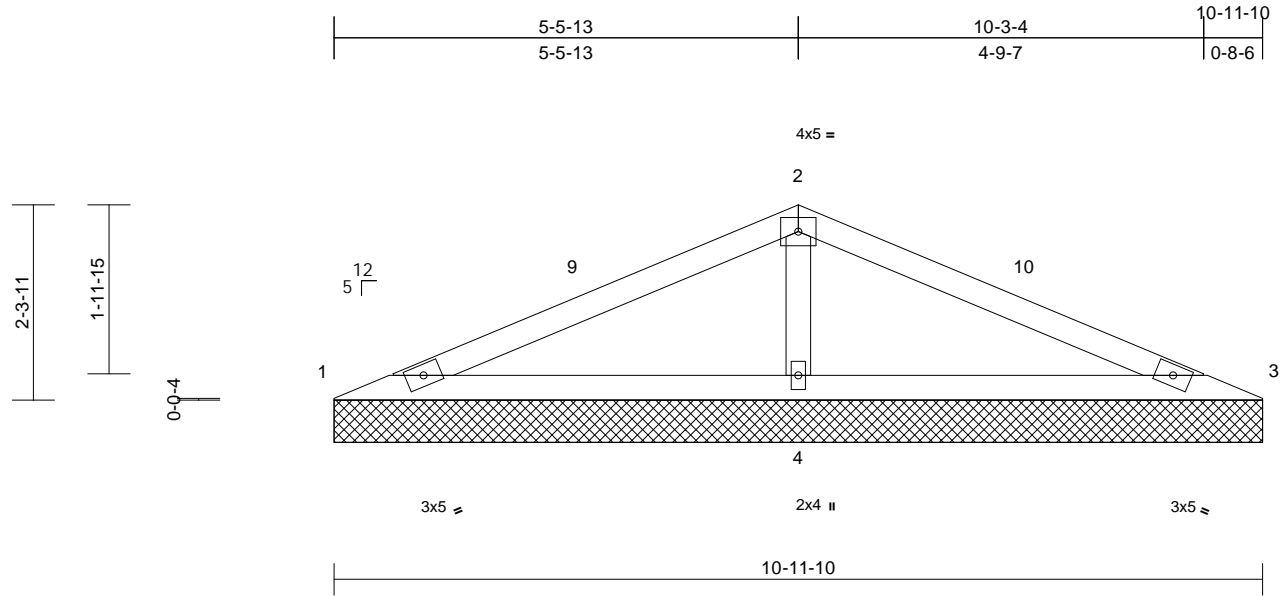
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223584
24080158	V05	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:56  
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Page: 1



Scale = 1:27.2

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.48	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horiz(TL)	0.00	4	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 34 lb FT = 20%											

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=10-11-10, 3=10-11-10,  
4=10-11-10  
Max Horiz 1=-34 (LC 15)  
Max Uplift 1=-25 (LC 21), 3=-25 (LC 20),  
4=-59 (LC 14)  
Max Grav 1=140 (LC 20), 3=140 (LC 21),  
4=787 (LC 20)

#### FORCES

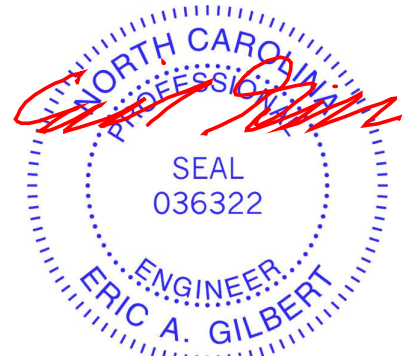
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-184/469, 2-3=-184/469  
BOT CHORD 1-4=-358/199, 3-4=-358/199  
WEBS 2-4=-594/307

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-10, Exterior (2R) 3-0-10 to 8-0-3, Exterior(2E) 8-0-3 to 11-0-3 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 25 lb uplift at joint 3 and 59 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28,2023

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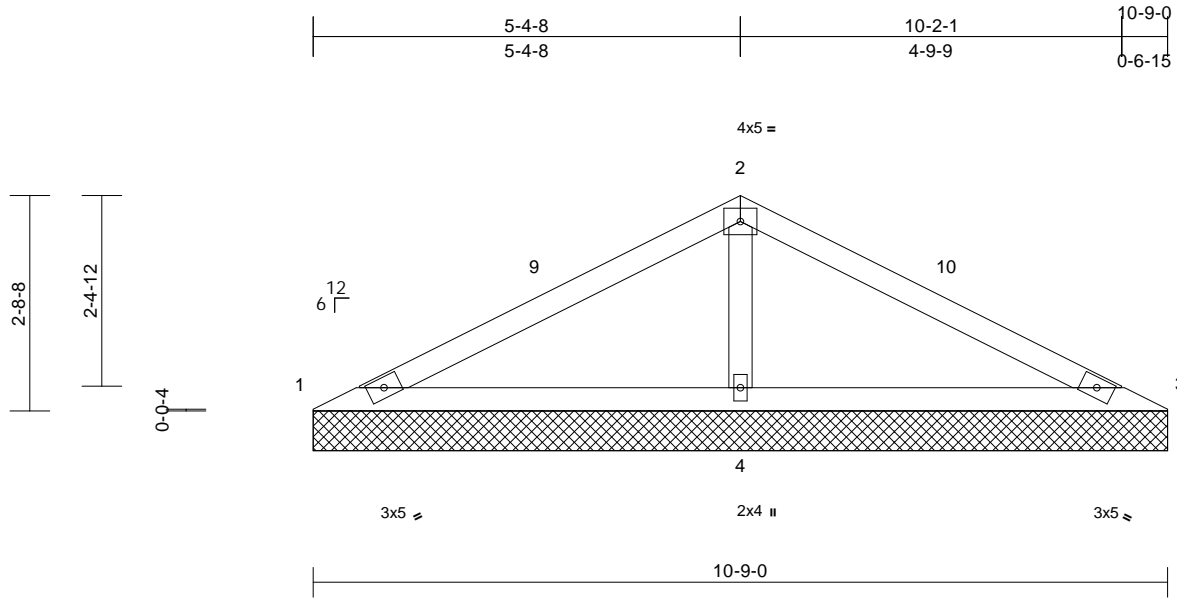
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	I62223585
24080158	V07	Valley	1	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:29

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.48	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.46	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	4	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 35 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=10-9-0, 3=10-9-0, 4=10-9-0  
Max Horiz 1=39 (LC 14)  
Max Uplift 1=42 (LC 21), 3=42 (LC 20), 4=66 (LC 14)  
Max Grav 1=124 (LC 20), 3=124 (LC 21), 4=790 (LC 21)

#### FORCES

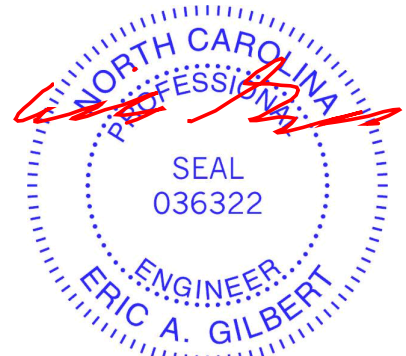
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=-149/447, 2-3=-149/447  
BOT CHORD 1-4=-315/199, 3-4=-315/199  
WEBS 2-4=-607/317

#### NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-8 to 3-0-8, Exterior(2R) 3-0-8 to 7-9-8, Exterior(2E) 7-9-8 to 10-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 42 lb uplift at joint 1, 42 lb uplift at joint 3 and 66 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



November 28, 2023

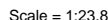
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Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:57 Page: 1  
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<b>LUMBER</b>	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
<b>BRACING</b>	
TOP CHORD	Structural wood sheathing directly applied or 6-9-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
<b>REACTIONS</b>	
(size)	1=6-9-0, 3=6-9-0, 4=6-9-0
Max Horiz	1=-24 (LC 15)
Max Uplift	1=-10 (LC 14), 3=-15 (LC 15), 4=-32 (LC 14)
Max Grav	1=104 (LC 20), 3=104 (LC 21), 4=414 (LC 21)
<b>FORCES</b>	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-116/196, 2-3=-116/196
BOT CHORD	1-4=-143/119, 3-4=-143/119
WEBS	2-4=-273/161

- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 1, 15 lb uplift at joint 3 and 32 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

## LOAD CASE(S) Standard

## NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;  
 Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-8 to 3-0-8, Exterior(2R) 3-0-8 to 3-9-8, Exterior(2E) 3-9-8 to 6-9-8 zone;  
 cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.



November 28, 2023



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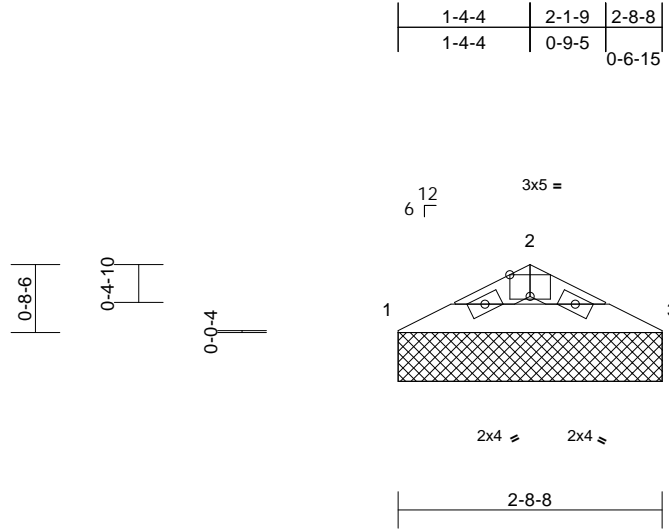
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Magnolia 1 LH	
24080158	V10	Valley	1	1	Job Reference (optional)	I62223587

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:57  
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Page: 1



Scale = 1:23.6

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 7 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 1=2-8-8, 3=2-8-8  
Max Horiz 1=-8 (LC 15)  
Max Uplift 1=-11 (LC 14), 3=-11 (LC 15)  
Max Grav 1=114 (LC 20), 3=114 (LC 21)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

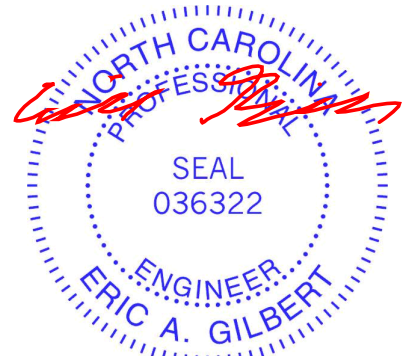
TOP CHORD 1-2=-167/79, 2-3=-167/79  
BOT CHORD 1-3=-58/154

#### NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.

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

LOAD CASE(S) Standard



November 28,2023

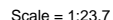
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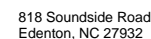
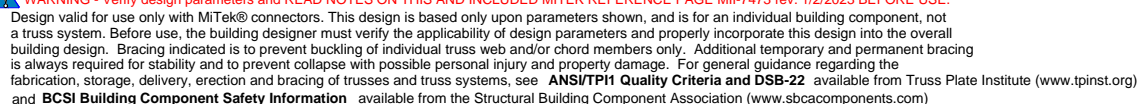
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818 Soundside Road  
Edenton, NC 27932

Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Tue Nov 28 08:40:57 Page: 1  
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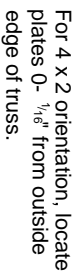
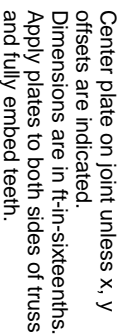
[illegible]

## LOAD CASE(S) Standard



## Numbering System

Center plate on joint unless x, y offsets are indicated.



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

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

4x4

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



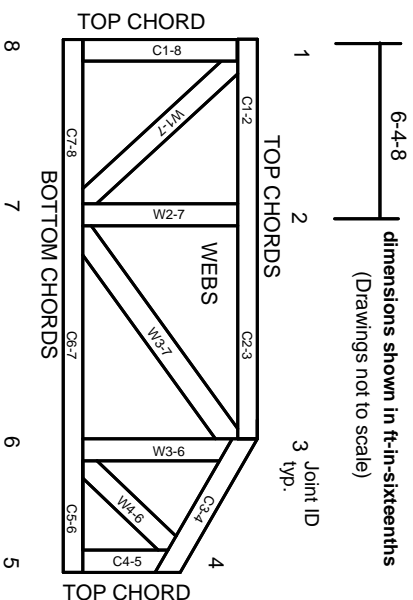
Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

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.

## ANSI/TP11: National Design Specification for Metal

**DSB-22:** Plate Connected Wood Truss Construction, Design Standard for Bracing.  
**BCSI:** Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

## Numbering System



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

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

## Product Code Approvals

## ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282  
ESR-4722, ESL-1388

## Design General Notes

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3. These truss designs rely on lumber values established by others.

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

## General Safety Notes

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

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