

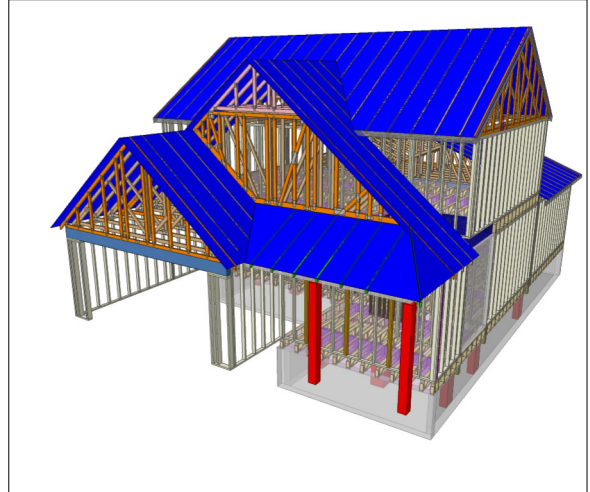


Carter Sanford Component Plant  
298 Harvey Faulk Rd  
Sanford, NC 27332

Phone #:919-775-1450

**Builder:** HH Hunt Homes Raleigh  
Durham

**Model:** Taylor HA FL GLH



**THE PLACEMENT PLAN NOTES:**

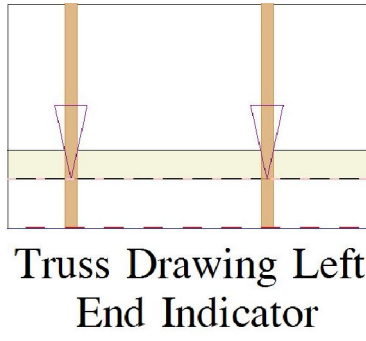
1. The Placement Plan is a diagram for truss installation. It is not an engineered drawing and has not been reviewed by an engineer. The Owner/Building Designer is responsible for obtaining an engineer's review if one is required by the local jurisdiction.
2. The responsibilities of the Owner, Contractor,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

**Approved By:** \_\_\_\_\_

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

\*\*\* ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.



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

HH Hunt Homes Raleigh Durham
44 Magnolia Acres-Roof-Taylor HA FL GLH
<b>ROOF PLACEMENT PLAN</b>

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

Designer:

Project Number:  
**25080115-01**

Sheet Number:

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 25080115-01  
44 Magnolia Acres-Roof-Taylor HA FL GLH

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

Pages or sheets covered by this seal: I75923856 thru I75923872

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

North Carolina COA: C-0844



August 27, 2025

Gilbert, Eric

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

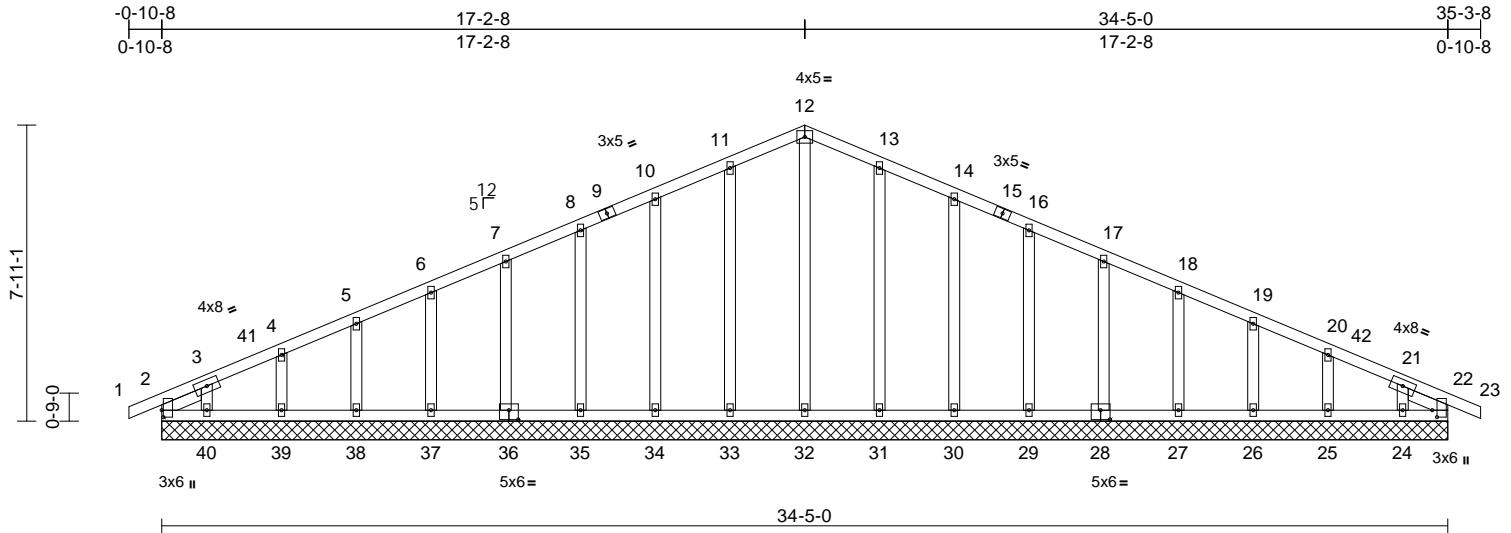
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923856
25080115-01	A1	Common Supported Gable	1	1	Job Reference (optional)	

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

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Aug 26 13:42:49

Page: 1

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Scale = 1:61.7

Plate Offsets (X, Y): [2:0-2-4,0-0-8], [22:0-2-4,0-1-8], [28:0-3-0,0-3-0], [36:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	n/a	-	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	22	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-SH							
BCDL	10.0										
Weight: 210 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 -- 1-2-8, Right 2x4 SP No.3 -- 1-2-8

**BRACING**  
TOP CHORD Sheathed or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size)  
2=34-5-0, 22=34-5-0, 24=34-5-0, 25=34-5-0, 26=34-5-0, 27=34-5-0, 28=34-5-0, 29=34-5-0, 30=34-5-0, 31=34-5-0, 32=34-5-0, 33=34-5-0, 34=34-5-0, 35=34-5-0, 36=34-5-0, 37=34-5-0, 38=34-5-0, 39=34-5-0, 40=34-5-0  
Max Horiz 2=119 (LC 16)  
Max Uplift 2=20 (LC 17), 24=65 (LC 17), 25=39 (LC 17), 26=38 (LC 17), 27=37 (LC 17), 28=38 (LC 17), 29=38 (LC 17), 30=40 (LC 17), 31=36 (LC 17), 33=38 (LC 16), 34=39 (LC 16), 35=38 (LC 16), 36=38 (LC 16), 37=37 (LC 16), 38=38 (LC 16), 39=39 (LC 16), 40=83 (LC 16)  
Max Grav 2=127 (LC 36), 22=110 (LC 2), 24=121 (LC 41), 25=164 (LC 41), 26=159 (LC 2), 27=162 (LC 2), 28=159 (LC 41), 29=159 (LC 2), 30=186 (LC 24), 31=199 (LC 24), 32=166 (LC 37), 33=199 (LC 23), 34=186 (LC 23), 35=159 (LC 2), 36=159 (LC 40), 37=162 (LC 2), 38=159 (LC 2), 39=164 (LC 40), 40=121 (LC 40)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD  
1-2=-6/0, 2-3=-180/61, 3-4=-120/63, 4-5=-89/72, 5-6=-69/87, 6-7=-52/106, 7-8=-53/124, 8-10=-63/149, 10-11=-76/186, 11-12=-91/221, 12-13=-91/221, 13-14=-76/186, 14-16=-63/149, 16-17=-53/113, 17-18=-46/77, 18-19=-37/41, 19-20=-47/20, 20-21=-66/22, 21-22=-118/42, 22-23=-6/0  
BOT CHORD  
2-40=-36/111, 39-40=-36/111, 38-39=-36/111, 37-38=-36/111, 35-37=-37/112, 34-35=-37/112, 33-34=-37/112, 32-33=-37/112, 31-32=-37/112, 30-31=-37/112, 29-30=-37/112, 27-29=-37/112, 26-27=-36/111, 25-26=-36/111, 24-25=-36/111, 22-24=-36/111  
WEBS  
12-32=-126/11, 11-33=-159/67, 10-34=-146/74, 8-35=-125/70, 7-36=-124/71, 6-37=-125/71, 5-38=-124/71, 4-39=-127/82, 3-40=-107/126, 13-31=-159/67, 14-30=-146/74, 16-29=-125/70, 17-28=-124/71, 18-27=-125/71, 19-26=-124/71, 20-25=-127/82, 21-24=-107/123

**NOTES**  
1) Unbalanced roof live loads have been considered for this design.  
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) 0-10-8 to 2-6-13, Exterior(2N) 2-6-13 to 17-2-8, Corner(3R) 17-2-8 to 20-7-13, Exterior (2N) 20-7-13 to 35-3-8 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=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.



August 27, 2025

Continued on page 2

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

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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH
25080115-01	A1	Common Supported Gable	1	1	I75923856
Job Reference (optional)					

- 12) All bearings are assumed to be SP No.2 .
- 13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 2, 38 lb uplift at joint 33, 39 lb uplift at joint 34, 38 lb uplift at joint 35, 38 lb uplift at joint 36, 37 lb uplift at joint 37, 38 lb uplift at joint 38, 39 lb uplift at joint 39, 83 lb uplift at joint 40, 36 lb uplift at joint 31, 40 lb uplift at joint 30, 38 lb uplift at joint 29, 38 lb uplift at joint 28, 37 lb uplift at joint 27, 38 lb uplift at joint 26, 39 lb uplift at joint 25 and 65 lb uplift at joint 24.
- 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

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Edenton, NC 27932

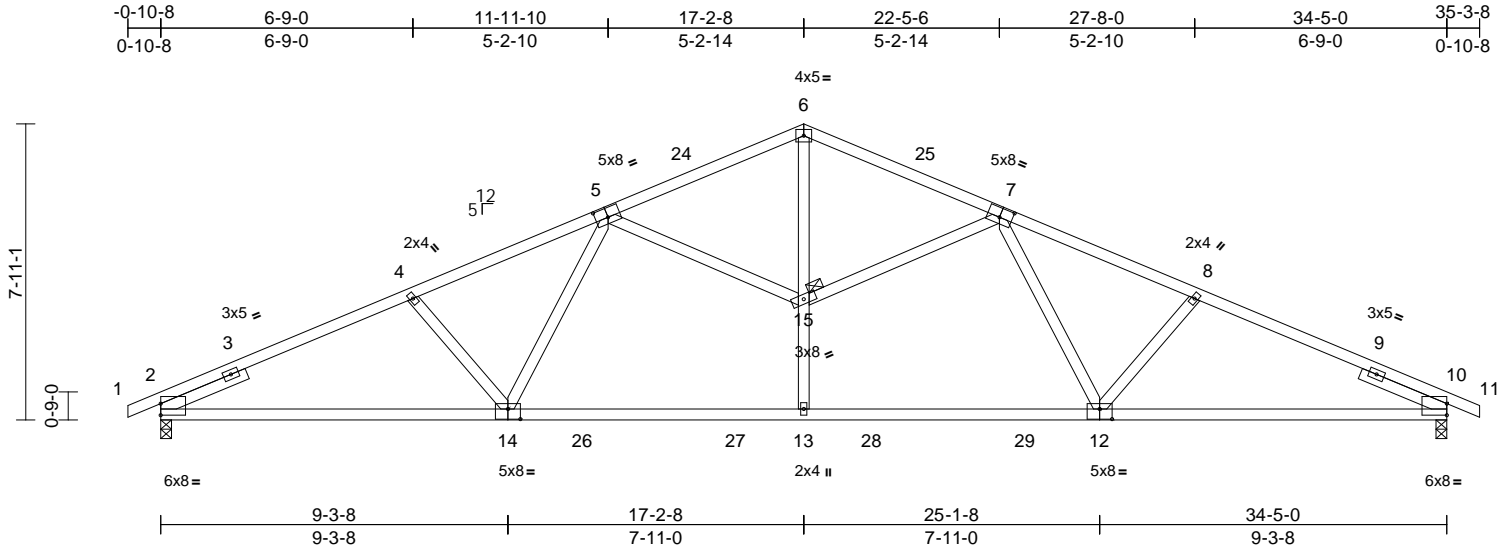
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH
25080115-01	A2	Common	9	1	175923857
Job Reference (optional)					

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

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Scale = 1:61.7

Plate Offsets (X, Y): [2:Edge,0-3-11], [5:0-4-0,0-3-0], [7:0-4-0,0-3-0], [10:Edge,0-3-11], [12:0-4-0,0-3-4], [14:0-4-0,0-3-4]

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	0.43	Vert(LL)	-0.39	12-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.50	12-13	>821	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.10	10	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 2400F 2.0E  
 BOT CHORD 2x4 SP 2400F 2.0E  
 WEBS 2x4 SP No.3 \*Except\* 13-6:2x4 SP 2400F 2.0E  
 SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

#### BRACING

TOP CHORD Sheathed or 4-2-14 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 JOINTS 1 Brace at Jt(s): 15

#### REACTIONS

(size) 2=0-3-8, 10=0-3-8  
 Max Horiz 2=-71 (LC 17)  
 Max Grav 2=1568 (LC 3), 10=1568 (LC 3)

#### FORCES

(lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-2=0/25, 2-4=-3153/243, 4-6=-2996/237, 6-8=-2996/237, 8-10=-3153/243, 10-11=0/25  
 BOT CHORD 2-13=-144/2830, 10-13=-147/2831  
 WEBS 13-15=0/422, 6-15=-24/1130, 7-15=-943/146, 7-12=0/490, 8-12=-301/117, 5-15=-943/146, 5-14=0/490, 4-14=-301/117

#### 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) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 17-2-8, Exterior(2R) 17-2-8 to 20-2-8, Interior (1) 20-2-8 to 35-3-8 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=1.33

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- 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



August 27, 2025

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

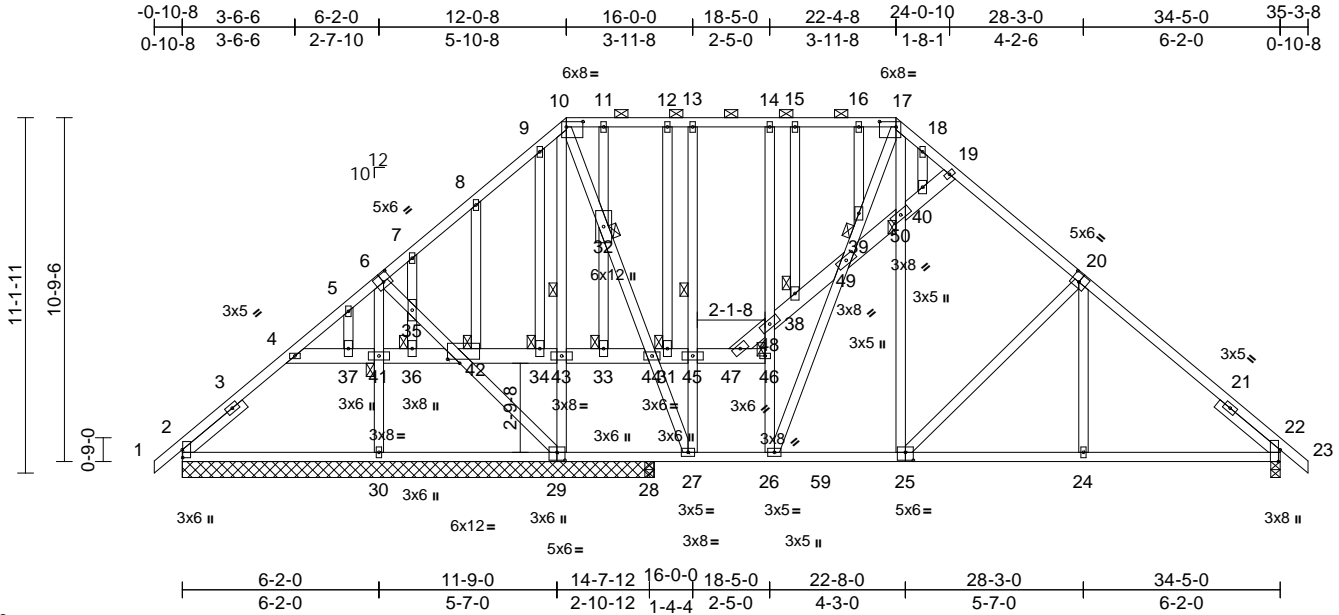
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923858
25080115-01	B1	Piggyback Base Structural Gable	1	1	Job Reference (optional)	

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

Run: 8.73 E Nov 16 2023 Print: 8.730 E Nov 16 2023 MiTek Industries, Inc. Wed Aug 27 13:34:26

Page: 1

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Scale = 1:72.2

Plate Offsets (X, Y): [2:0-2-15,0-0-3], [6:0-3-0,0-3-0], [10:0-6-4,0-2-0], [17:0-6-4,0-2-0], [20:0-3-0,0-3-0], [22:0-4-7,Edge], [25:0-3-0,0-3-0], [29:0-3-0,0-3-0], [42:0-4-9,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.07	25-26	>999	240	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.13	25-26	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.40	Horz(CT)	0.03	22	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 368 lb FT = 20%											

#### LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x6 SP No.2 *Except* 6-30,29-6,25-20,20-24:2x4 SP No.3, 29-10,25-17,26-17,27-10,27-13,14-26:2x4 SP No.2
OTHERS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-0-5 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 10-17.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 10-29, 13-27
JOINTS	1 Brace at Jt(s): 31, 32, 33, 34, 36, 38, 39, 41, 42, 46, 50

#### REACTIONS

All bearings	14-9-8. except 22=0-3-8, 28=0-3-8
(lb) - Max Horiz	2=-167 (LC 12), 55=-167 (LC 12)
Max Uplift	All uplift 100 (lb) or less at joint(s) 28
Max Grav	All reactions 250 (lb) or less at joint (s) 28 except 2=554 (LC 2), 22=1116 (LC 2), 29=676 (LC 2), 30=561 (LC 30), 55=554 (LC 2)

#### FORCES

(lb) - Max. Comp./Max. Ten. - All forces	250
(lb) or less except when shown.	

TOP CHORD	2-3=-374/6, 3-4=-480/84, 4-5=-354/99, 5-6=-320/100, 6-7=-473/53, 7-8=-489/89, 8-9=-465/161, 9-10=-465/193, 10-11=-575/181, 11-12=-575/181, 12-13=-575/181, 13-14=-574/181, 14-15=-585/181, 15-16=-585/181, 16-17=-585/181, 17-18=-761/188, 18-19=-850/182, 19-20=-1015/188, 20-21=-1207/133, 21-22=-489/0
BOT CHORD	2-30=-18/410, 29-30=-15/410, 28-29=0/390, 27-28=0/390, 26-27=0/650, 26-59=0/714, 25-59=0/714, 24-25=0/926, 22-24=0/927 30-41=-436/95, 6-41=-363/49, 29-43=-546/15, 10-43=-423/0, 25-50=-16/410, 17-50=-15/355, 20-25=-332/116, 10-32=-70/705, 32-44=-64/690, 27-44=-37/730, 27-45=-481/59, 13-45=-396/28, 47-48=-402/57
WEBS	

#### NOTES

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

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load; Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=18.9 psf (flat roof snow; Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10, Lu=50-0-0; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.



August 27, 2025

Continued on page 2

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

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ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH
25080115-01	B1	Piggyback Base Structural Gable	1	1	I75923858
					Job Reference (optional)

- 11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 28.
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- LOAD CASE(S) Standard

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

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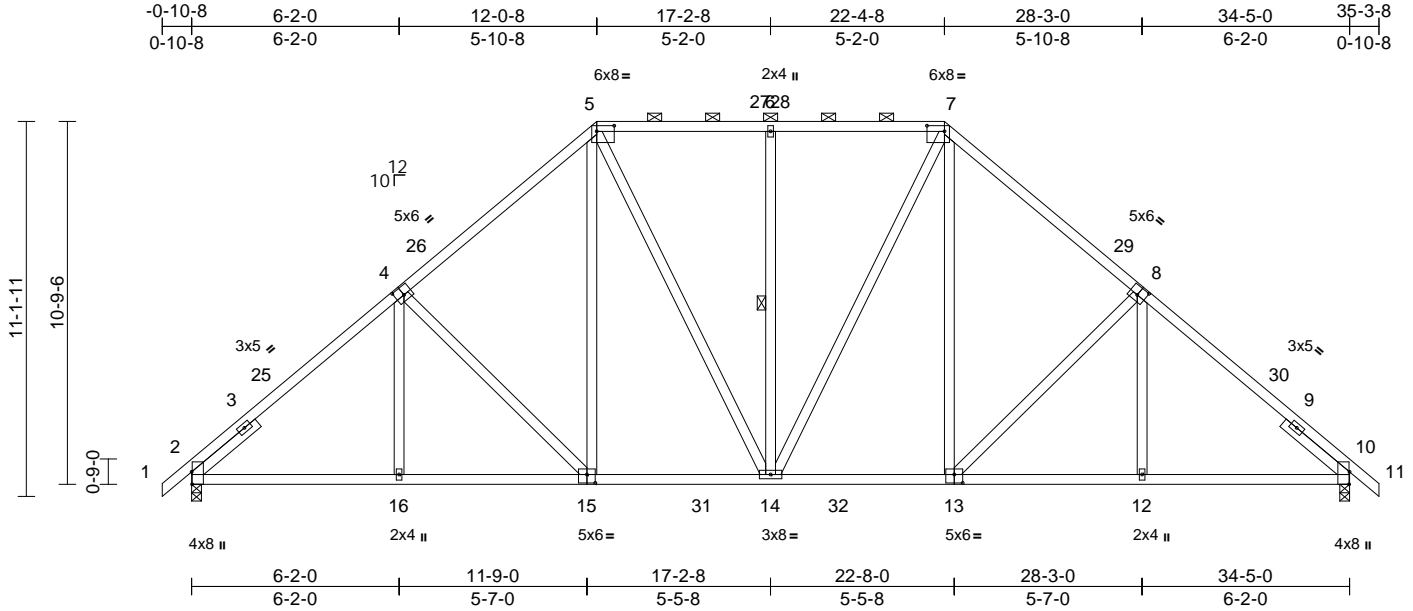
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923859
25080115-01	B2	Piggyback Base	2	1	Job Reference (optional)	

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

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Aug 26 13:42:50

Page: 1

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Scale = 1:68.5

Plate Offsets (X, Y): [2:0-4-7,Edge], [4:0-3-0,0-3-0], [5:0-6-4,0-2-0], [7:0-6-4,0-2-0], [8:0-3-0,0-3-0], [10:0-4-7,Edge], [13:0-3-0,0-3-0], [15:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.09	14-15	>999	240	244/190
Snow (Pf/Pg)	18.9/20.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.16	14-15	>999	180	
TCDL	10.0	Rep Stress Incr	YES	WB	0.51	Horz(CT)	0.08	10	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 242 lb FT = 20%											

#### LUMBER

TOP CHORD 2x4 SP No.2  
BOT CHORD 2x4 SP No.2  
WEBS 2x4 SP No.2 \*Except\*  
4-16,15-4,13-8,8-12:2x4 SP No.3  
SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 3-7-13 oc purlins, except 2-0-0 oc purlins (4-8-3 max.): 5-7.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 6-14

#### REACTIONS

(size) 2=0-3-8, 10=0-3-8  
Max Horiz 2=-203 (LC 12)  
Max Grav 2=1558 (LC 3), 10=1558 (LC 3)

#### FORCES

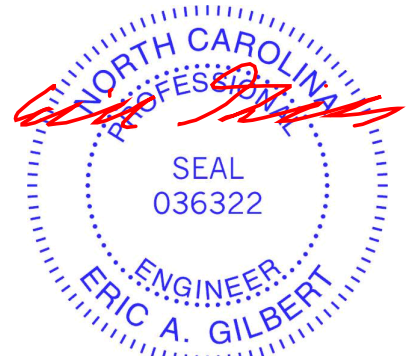
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/42, 2-5=-2148/201, 5-6=-1492/202, 6-7=-1492/202, 7-10=-2148/201, 10-11=0/42  
BOT CHORD 2-16=-158/1569, 14-16=-19/1568, 12-14=-1/1569, 10-12=-64/1570  
WEBS 4-16=0/209, 4-15=-425/132, 5-15=-26/541, 5-14=-90/354, 6-14=-342/83, 7-14=-90/354, 7-13=-26/541, 8-13=-425/132, 8-12=0/209

#### 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) and C-C Exterior(2E) -0-10-8 to 2-6-13, Interior (1) 2-6-13 to 12-0-8, Exterior(2R) 12-0-8 to 16-10-14, Interior (1) 16-10-14 to 22-4-8, Exterior(2R) 22-4-8 to 27-2-15, Interior (1) 27-2-15 to 35-3-8 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=1.33
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=18.9 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, Lu=50-0-0
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) Provide adequate drainage to prevent water ponding.
- 6) 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) All bearings are assumed to be SP No.2.
- 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.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



August 27, 2025

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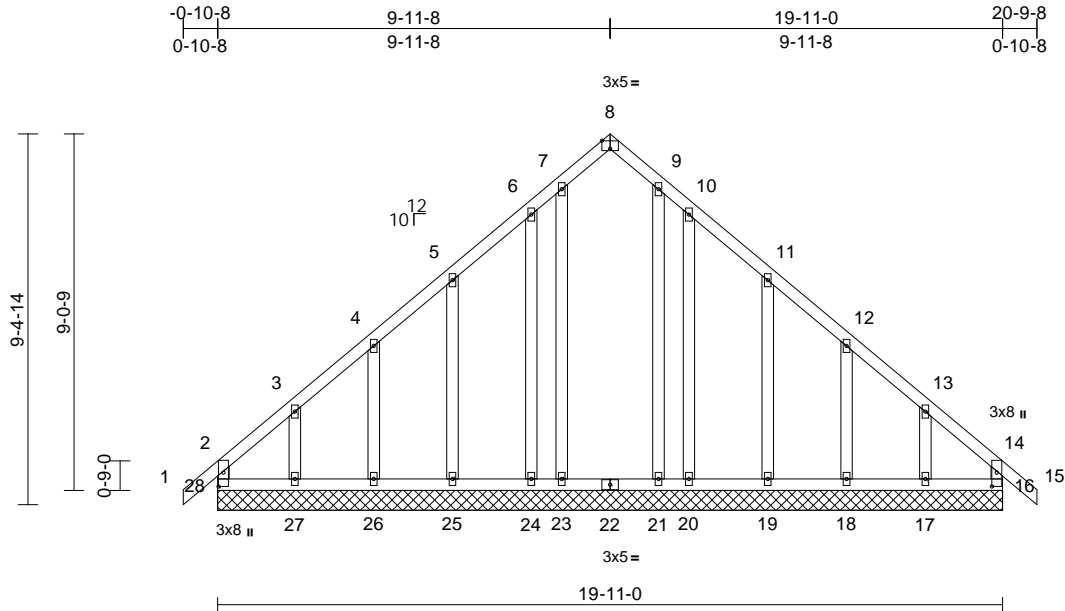
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923860
25080115-01	C1	Common Supported Gable	1	1	Job Reference (optional)	

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

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Scale = 1:58.5

Plate Offsets (X, Y): [8:0-2-8,Edge], [14:0-4-4,0-1-8], [28:0-4-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	16	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR							
BCDL	10.0										
Weight: 147 lb FT = 20%											

#### LUMBER

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

#### BRACING

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

REACTIONS	(size)	16=19-11-0, 17=19-11-0, 18=19-11-0, 19=19-11-0, 20=19-11-0, 21=19-11-0, 23=19-11-0, 24=19-11-0, 25=19-11-0, 26=19-11-0, 27=19-11-0, 28=19-11-0
	Max Horiz	28=230 (LC 12)
	Max Uplift	16=29 (LC 11), 17=160 (LC 15), 18=56 (LC 15), 19=89 (LC 15), 20=98 (LC 15), 24=93 (LC 14), 25=88 (LC 14), 26=55 (LC 14), 27=164 (LC 14), 28=50 (LC 10)
	Max Grav	16=222 (LC 33), 17=218 (LC 31), 18=198 (LC 31), 19=214 (LC 31), 20=119 (LC 31), 21=190 (LC 32), 23=201 (LC 33), 24=113 (LC 30), 25=214 (LC 30), 26=197 (LC 30), 27=225 (LC 30), 28=232 (LC 32)

#### FORCES

	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-28=-181/48, 1-2=0/49, 2-3=-258/146, 3-4=-152/104, 4-5=-115/79, 5-6=-99/85, 6-7=-100/163, 7-8=-94/111, 8-9=-94/111, 9-10=-100/163, 10-11=-87/76, 11-12=-97/54, 12-13=-139/80, 13-14=-243/120, 14-15=0/49, 14-16=-173/37

BOT CHORD	27-28=-105/225, 26-27=-105/225, 25-26=-105/225, 24-25=-105/225, 23-24=-105/225, 21-23=-105/225, 20-21=-105/225, 19-20=-105/225, 18-19=-105/225, 17-18=-105/225, 16-17=-105/225
WEBS	7-23=-106/17, 9-21=-96/17, 6-24=-120/127, 5-25=-159/120, 4-26=-150/97, 3-27=-158/148, 10-20=-120/127, 11-19=-159/120, 12-18=-150/97, 13-17=-158/148

#### 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 1-11-8, Exterior(2N) 1-11-8 to 9-11-8, Corner(3R) 9-11-8 to 12-11-8, Exterior (2N) 12-11-8 to 20-9-8 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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 28, 29 lb uplift at joint 16, 93 lb uplift at joint 24, 88 lb uplift at joint 25, 55 lb uplift at joint 26, 164 lb uplift at joint 27, 98 lb uplift at joint 20, 89 lb uplift at joint 19, 56 lb uplift at joint 18 and 160 lb uplift at joint 17.
- 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



August 27, 2025

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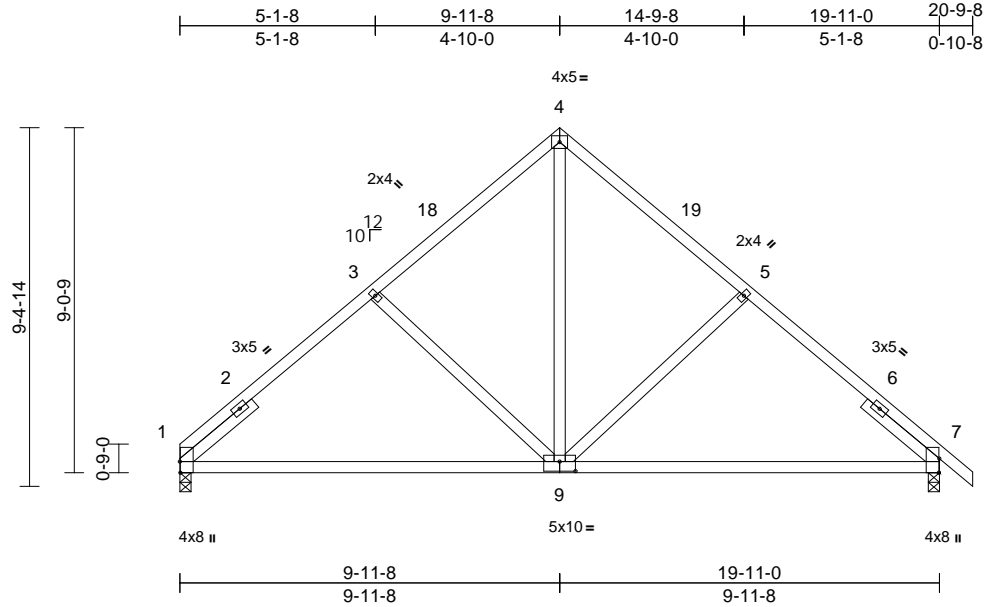
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923861
25080115-01	C2	Common	3	1	Job Reference (optional)	

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

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Aug 26 13:42:51

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Scale = 1:60.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.33	Vert(LL)	-0.14	9-16	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.28	9-12	>856	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.02	1	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 110 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

**REACTIONS** (size) 1=0-3-8, 7=0-3-8  
 Max Horiz 1=-165 (LC 12)  
 Max Grav 1=796 (LC 2), 7=850 (LC 2)

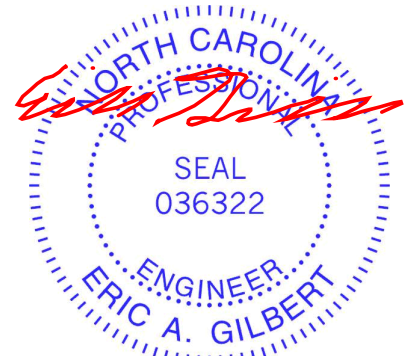
**FORCES** (lb) - Maximum Compression/Maximum Tension  
 TOP CHORD 1-3=-876/135, 3-4=-802/155, 4-5=-802/154, 5-7=-858/133, 7-8=0/42  
 BOT CHORD 1-7=-143/692  
 WEBS 4-9=-78/626, 5-9=-306/149, 3-9=-309/150

#### 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) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-11-8, Exterior(2R) 9-11-8 to 12-11-8, Interior (1) 12-11-8 to 20-9-8 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- 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



August 27, 2025

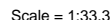
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[illegible]

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust)  
Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.

- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 7) Bearings are assumed to be: Joint 2 SP No.2 , Joint 5 SP No.3 .
- 8) Bearing at joint(s) 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 5.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 2.

## LOAD CASE(S) Standard



August 27, 2025

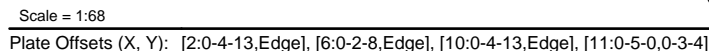


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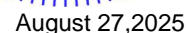


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Carter Components (Sanford, NC), Sanford, NC - 27332, Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Aug 26 13:42:51 Page: 1  
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<b>LUMBER</b>		2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed: MWFRS (envelope) and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-9-0, Exterior(2R) 11-9-0 to 14-9-0, Interior (1) 14-9-0 to 23-6-0 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=1.33
TOP CHORD	2x4 SP No.2	
BOT CHORD	2x4 SP No.1	3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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
WEBS	2x4 SP No.3	
SLIDER	Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3 -- 2-6-0	4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
<b>BRACING</b>		5) 200.0lb AC unit load placed on the bottom chord, 11-9-8 from left end, supported at two points, 5-0-0 apart.
TOP CHORD	Structural wood sheathing directly applied or 3-7-2 oc purlins.	6) All plates are 2x4 MT20 unless otherwise indicated.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.	7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
<b>REACTIONS</b>	(size) 2=0-3-8, 10=0-3-8 Max Horiz 2=154 (LC 13) Max Grav 2=1398 (LC 30), 10=1350 (LC 31)	8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-0 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
<b>FORCES</b>	(lb) - Maximum Compression/Maximum Tension	9) All bearings are assumed to be SP No.1 .
TOP CHORD	1-2=0/37, 2-4=-2078/20, 4-5=-1984/0, 5-6=-73/54, 6-7=-70/55, 7-8=-1988/0, 8-10=-2082/24	10) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
BOT CHORD	2-20=0/1643, 18-20=0/1345, 16-18=0/1345, 12-16=0/1345, 10-12=0/1648, 17-19=-58/0, 15-17=-58/0, 14-15=-58/0, 13-14=-58/0	
WEBS	4-20=-238/152, 19-20=0/647, 5-19=0/797, 7-13=0/805, 11-13=0/655, 8-11=-243/151, 5-7=-1421/20, 17-18=-59/29, 12-14=-60/28, 15-16=-7/17	
<b>NOTES</b>		
1) Unbalanced roof live loads have been considered for this design.		



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Edenton, NC 27932



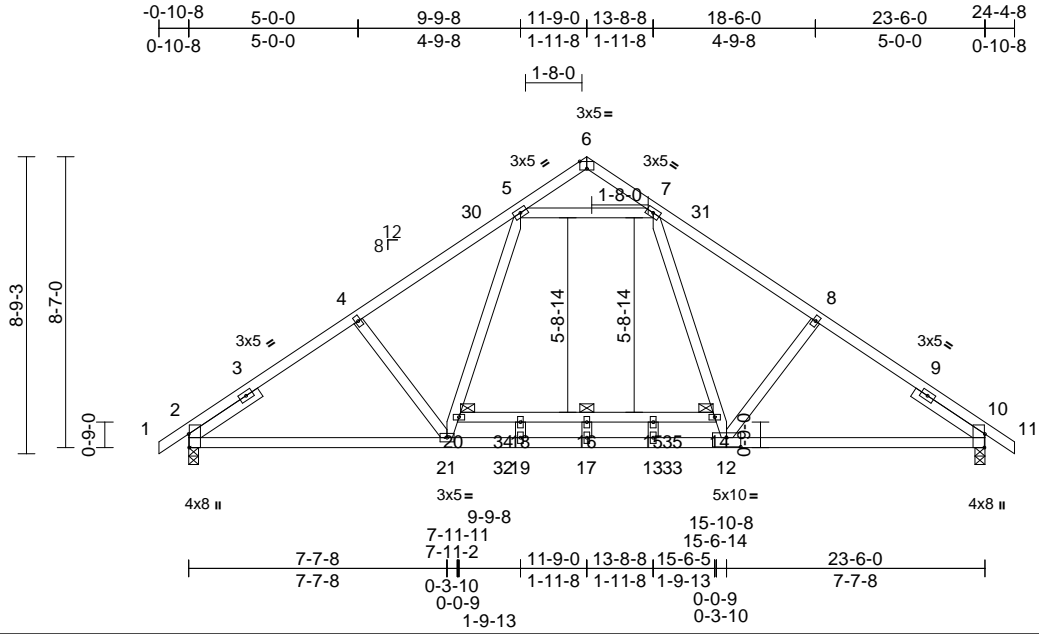
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923864
25080115-01	E2	Common	2	1	Job Reference (optional)	

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

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Aug 26 13:42:51

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Scale = 1:68

Plate Offsets (X, Y): [2:0-4-13,Edge], [6:0-2-8,Edge], [10:0-4-13,Edge], [12:0-5-0,0-3-4]

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	0.56	Vert(LL)	-0.29	17	>960	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.56	17	>505	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.44	Horz(CT)	0.06	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 141 lb	FT = 20%

#### LUMBER

TOP CHORD 2x4 SP No.2  
 BOT CHORD 2x4 SP No.1 \*Except\* 20-14:2x4 SP No.2 P  
 WEBS 2x4 SP No.3 \*Except\*  
 5-7,18-19,16-17,15-13:2x4 SP No.2 P  
 SLIDER Left 2x4 SP No.3 -- 2-6-0, Right 2x4 SP No.3  
 -- 2-6-0

#### BRACING

TOP CHORD Sheathed or 3-6-15 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc  
 bracing.

#### REACTIONS

(size) 2=0-3-8, 10=0-3-8  
 Max Horiz 2=158 (LC 12)  
 Max Grav 2=1398 (LC 30), 10=1399 (LC 31)

#### FORCES

(lb) - Maximum Compression/Maximum  
 Tension  
 TOP CHORD 1-2=0/37, 2-4=-2079/24, 4-5=-1985/0,  
 5-6=-70/55, 6-7=-69/56, 7-8=-1987/0,  
 8-10=-2081/23, 10-11=0/37  
 BOT CHORD 2-21=0/1648, 19-21=0/1349, 17-19=0/1349,  
 13-17=0/1349, 10-13=0/1651, 18-20=-55/0,  
 16-18=-55/0, 15-16=-55/0, 14-15=-55/0  
 WEBS 4-21=-237/152, 20-21=0/659, 5-20=0/798,  
 7-14=0/802, 12-14=0/663, 8-12=-237/152,  
 5-7=-1424/19, 18-19=-66/25, 16-17=-8/9,  
 13-15=-66/24

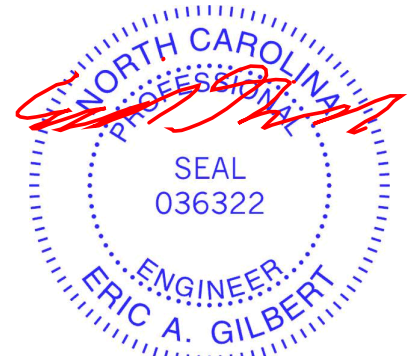
#### NOTES

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

- Wind: ASCE 7-16; Vult=130mph (3-second gust)  
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat.  
 II; Exp B; Enclosed; MWFRS (envelope) and C-C  
 Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 11-9-0,  
 Exterior(2R) 11-9-0 to 14-9-0, Interior (1) 14-9-0 to  
 24-4-8 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=1.33
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15  
 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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
- This truss has been designed for greater of min roof live  
 load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on  
 overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 11-9-8  
 from left end, supported at two points, 5-0-0 apart.
- All plates are 2x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom  
 chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf  
 on the bottom chord in all areas where a rectangle  
 3-06-00 tall by 2-00-00 wide will fit between the bottom  
 chord and any other members, with BCDL = 10.0psf.
- Lumber designated with a "P" is pressure-treated with  
 preservatives. Plate lateral resistance values have been  
 reduced 20% where used in this lumber. Plates should  
 be protected from corrosion per the recommendation of  
 the treatment company. Borate or other suitable  
 treatment may be used if it does not corrode the plates.  
 If ACQ, CBA, or CA-B treated lumber is used, improved  
 corrosion protection is required, and G185 galvanized  
 plates may be used with this design. Incising factors  
 have not been considered for this design. Building  
 designer to verify suitability of this product for its  
 intended use.
- All bearings are assumed to be SP No.1 .

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



August 27, 2025

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

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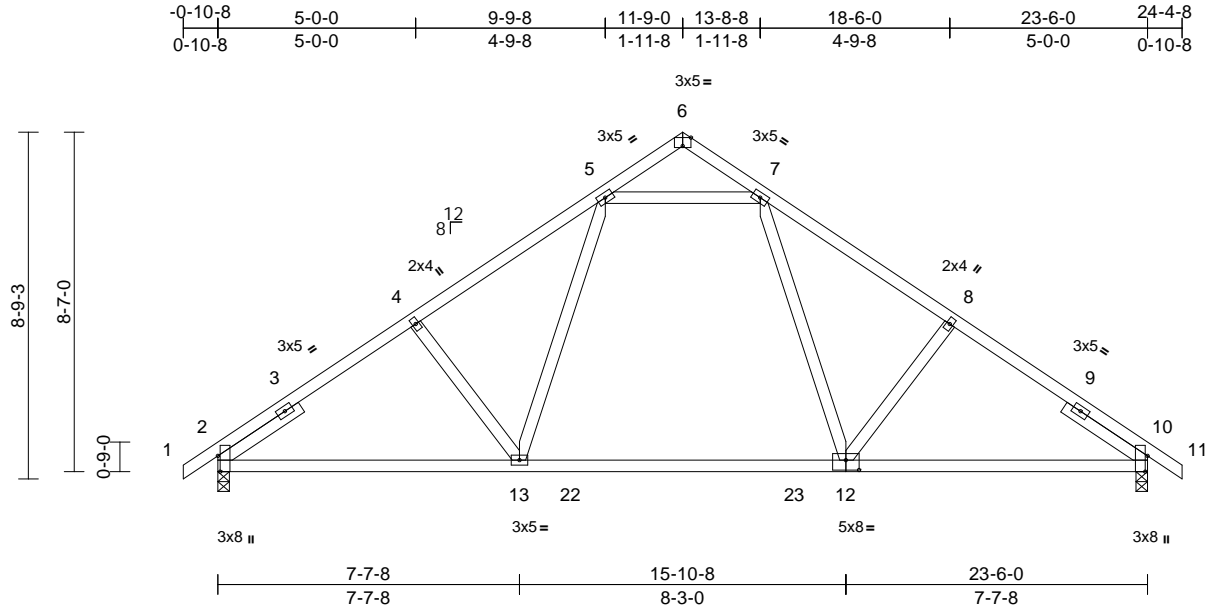
818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923865
25080115-01	E3	Common	8	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:58.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.26	12-13	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.37	12-13	>755	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.04	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 128 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD Structural wood sheathing directly applied or 4-10-12 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 2=0-3-8, 10=0-3-8  
Max Horiz 2=130 (LC 12)  
Max Grav 2=993 (LC 2), 10=993 (LC 2)

#### FORCES

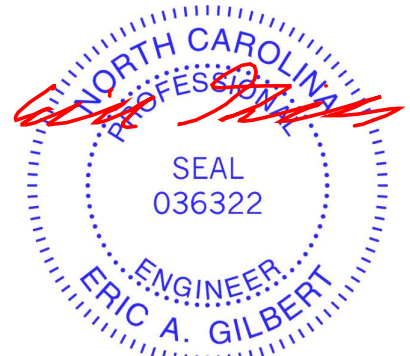
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/37, 2-4=-1269/115, 4-5=-1174/143, 5-6=-77/49, 6-7=-77/49, 7-8=-1174/143, 8-10=-1269/115, 10-11=0/37  
BOT CHORD 2-13=-64/1101, 10-13=-66/1003  
WEBS 8-12=-268/117, 4-13=-268/117, 5-13=0/434, 7-12=0/434, 5-7=-814/183

#### NOTES

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

- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- All bearings are assumed to be SP No.2.

**LOAD CASE(S)** Standard



August 27, 2025

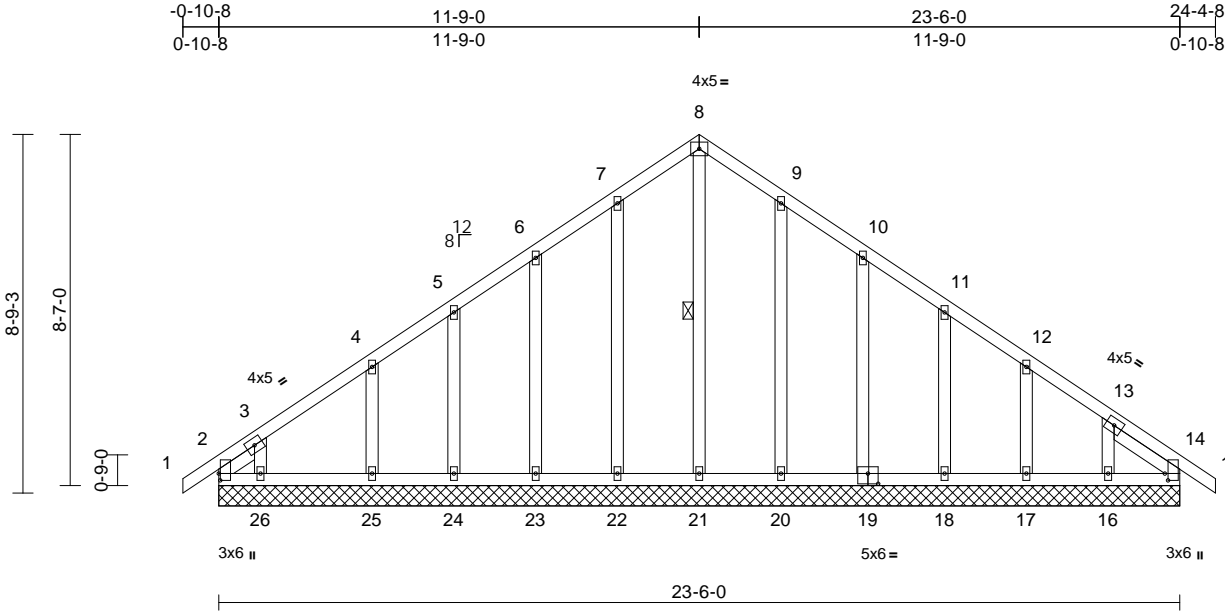
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.**

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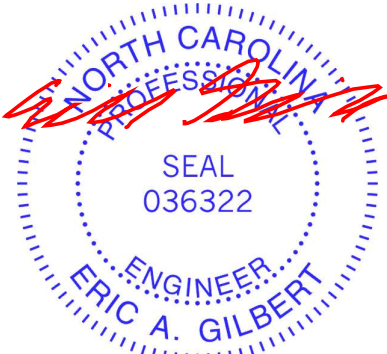
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH
25080115-01	E4	Common Supported Gable	2	1	175923866
Job Reference (optional)					



Scale = 1:56.3									
Plate Offsets (X, Y): [2:0-2-0,0-0-7], [14:0-2-0,0-0-15], [19:0-3-0,0-3-0]									
<b>Loading</b>	(psf)	<b>Spacing</b>	2-0-0	<b>CSI</b>		<b>DEFL</b>	in	(loc)	l/defl
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	999
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	999
TCDL	10.0	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	14	n/a
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH					
BCDL	10.0								
Weight: 156 lb FT = 20%									

<b>LUMBER</b>		<b>TOP CHORD</b>		1-2=0/37, 2-3=-65/104, 3-4=-113/93, 4-5=-97/70, 5-6=-86/70, 6-7=-104/110, 7-8=-141/152, 8-9=-141/152, 9-10=-104/109, 10-11=-62/61, 11-12=-57/30, 12-13=-63/44, 13-14=-32/29, 14-15=0/37	6) All plates are 2x4 MT20 unless otherwise indicated.
TOP CHORD	2x4 SP No.2	<b>BOT CHORD</b>		2-26=73/107, 25-26=73/107, 24-25=73/107, 23-24=73/107, 22-23=73/107, 21-22=73/107, 20-21=73/107, 18-20=76/109, 17-18=76/109, 16-17=76/109, 14-16=76/109	7) Gable requires continuous bottom chord bearing.
BOT CHORD	2x4 SP No.2	<b>WEBS</b>		3-26=148/100, 8-21=125/57, 7-22=128/53, 6-23=121/62, 5-24=112/54, 4-25=150/72, 9-20=128/54, 10-19=122/62, 11-18=120/58, 12-17=-123/59, 13-16=123/72	8) Gable studs spaced at 2-0-0 oc.
OTHERS	2x4 SP No.3	<b>NOTES</b>		1) Unbalanced roof live loads have been considered for this design.	9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
SLIDER	Left 2x4 SP No.3 -- 1-1-5, Right 2x4 SP No.3 -- 1-11-14	<b>LOAD CASE(S)</b>		2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33	10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
<b>BRACING</b>		<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.	11) All bearings are assumed to be SP No.2 .
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.	(size)		4) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10	12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 2, 56 lb uplift at joint 26, 11 lb uplift at joint 22, 14 lb uplift at joint 23, 12 lb uplift at joint 24, 15 lb uplift at joint 25, 9 lb uplift at joint 20, 15 lb uplift at joint 19, 14 lb uplift at joint 18, 10 lb uplift at joint 17, 34 lb uplift at joint 16 and 57 lb uplift at joint 2.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	2=23-6-0, 14=23-6-0, 16=23-6-0, 17=23-6-0, 18=23-6-0, 19=23-6-0, 20=23-6-0, 21=23-6-0, 22=23-6-0, 23=23-6-0, 24=23-6-0, 25=23-6-0, 26=23-6-0		5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.	
WEBS	1 Row at midpt	2=130 (LC 12)			
<b>FORCES</b>		Max Uplift			
(lb) - Maximum Compression/Maximum Tension		2=57 (LC 10), 16=34 (LC 15), 17=10 (LC 15), 18=14 (LC 15), 19=15 (LC 15), 20=9 (LC 15), 22=11 (LC 14), 23=14 (LC 14), 24=12 (LC 14), 25=15 (LC 14), 26=56 (LC 14)			
		Max Grav			
		2=130 (LC 27), 14=135 (LC 2), 16=157 (LC 27), 17=163 (LC 2), 18=158 (LC 27), 19=162 (LC 27), 20=170 (LC 31), 21=146 (LC 29), 22=167 (LC 30), 23=162 (LC 26), 24=148 (LC 26), 25=200 (LC 2), 26=193 (LC 26)			



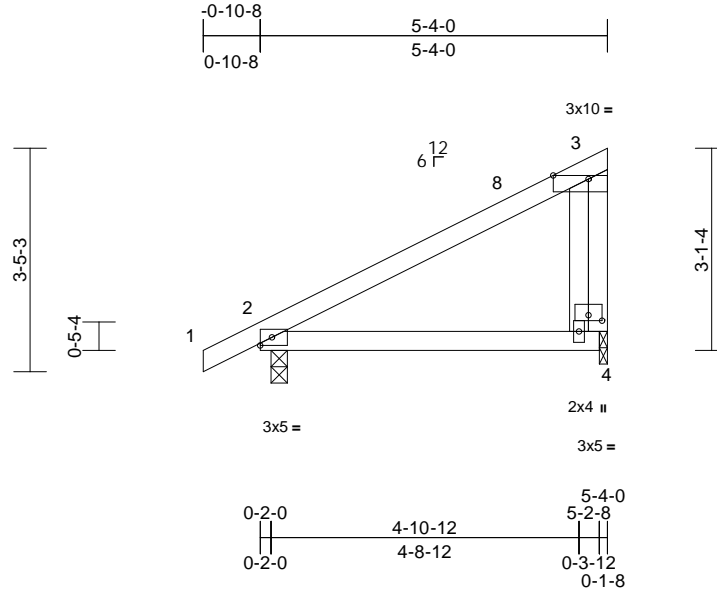
August 27,2025

Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH
25080115-01	J5	Jack-Closed	6	1	I75923867
Job Reference (optional)					

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

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Page: 1



Scale = 1:35.4

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.38	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	4-7	>934	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 25 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 5-4-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS	(size)	2=0-3-0, 4=0-1-8
	Max Horiz	2=68 (LC 15)
	Max Grav	2=259 (LC 2), 4=197 (LC 2)

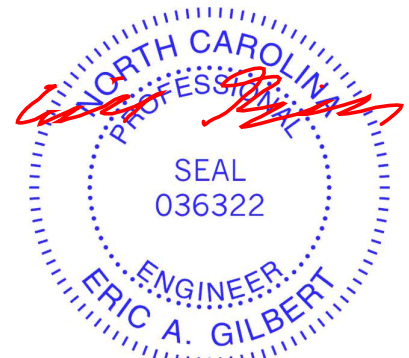
FORCES	(lb) - Maximum Compression/Maximum Tension
--------	--

TOP CHORD	1-2=0/30, 2-3=-104/70, 3-4=-132/104
BOT CHORD	2-4=-91/71

#### NOTES

- 1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior (2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- 2) TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- 3) Unbalanced snow loads have been considered for this design.
- 4) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.

- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
  - 7) Bearings are assumed to be: Joint 2 SP No.2, Joint 4 SP No.3.
  - 8) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
  - 9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- LOAD CASE(S)** Standard



August 27, 2025

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

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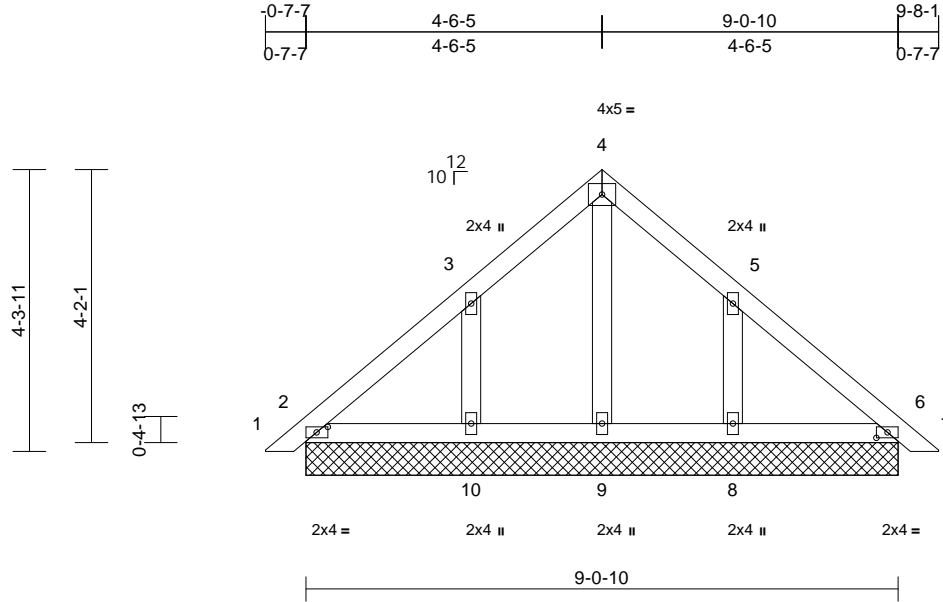
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923868
25080115-01	PB1	Piggyback	1	1	Job Reference (optional)	

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

Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Aug 26 13:42:51  
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Page: 1



Scale = 1:35.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999	
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a	
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MSH							
BCDL	10.0										
										Weight: 44 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" oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10'-0" oc bracing.

#### REACTIONS

(size) 2=9'-0"-10, 6=9'-0"-10, 8=9'-0"-10, 9=9'-0"-10, 10=9'-0"-10  
Max Horiz 2=-64 (LC 12)  
Max Uplift 8=-34 (LC 15), 10=-35 (LC 14)  
Max Grav 2=129 (LC 2), 6=129 (LC 2), 8=224 (LC 27), 9=87 (LC 29), 10=225 (LC 26)

#### FORCES

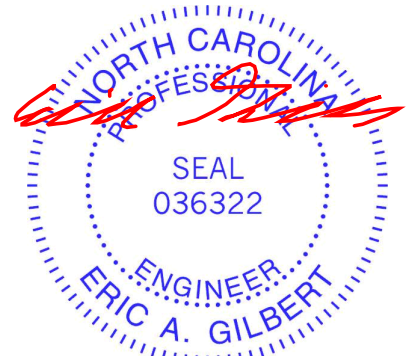
(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-2=0/19, 2-3=-75/44, 3-4=-84/71, 4-5=-84/71, 5-6=-61/31, 6-7=0/19  
BOT CHORD 2-10=-31/61, 9-10=-31/61, 8-9=-31/61, 6-8=-31/61  
WEBS 4-9=-59/14, 3-10=-157/96, 5-8=-157/96

#### NOTES

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

- TCLL: ASCE 7-10; Pr=20.0 psf (roof live load: Lumber DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=13.9 psf (flat roof snow: Lumber DOL=1.15 Plate DOL=1.15); Category II; Exp B; Fully Exp.; Ct=1.10
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2'-0" oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3'-0"-0" tall by 2'-0"-0" wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 10 and 34 lb uplift at joint 8.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



August 27, 2025

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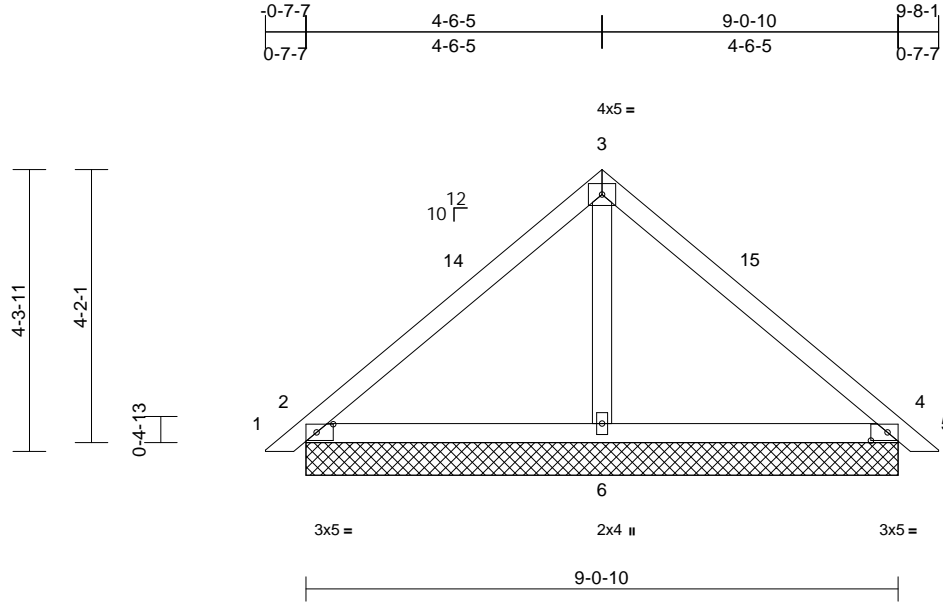


Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	I75923869
25080115-01	PB2	Piggyback	2	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:35.2

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.24	Vert(LL)	n/a	-	n/a	999	MT20
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	n/a	-	n/a	999	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a	
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0										
Weight: 39 lb FT = 20%											

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size) 2=9-0-10, 4=9-0-10, 6=9-0-10  
Max Horiz 2=-77 (LC 12)  
Max Uplift 2=-11 (LC 14), 4=-18 (LC 15)  
Max Grav 2=252 (LC 2), 4=252 (LC 2), 6=269 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/19, 2-3=-213/140, 3-4=-213/134, 4-5=0/19

BOT CHORD 2-6=-53/104, 4-6=-42/104

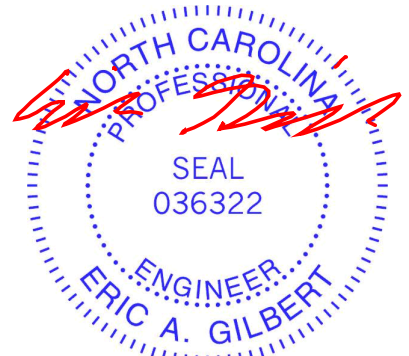
WEBS 3-6=-109/4

#### 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) and C-C Exterior(2E) 0-2-14 to 3-2-14, Interior (1) 3-2-14 to 5-2-0, Exterior(2R) 5-2-0 to 9-4-7, Interior (1) 9-4-7 to 10-1-3 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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 13.9 psf on overhangs non-concurrent with other live loads.
- 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.
- All bearings are assumed to be SP No.2 .
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 2, 18 lb uplift at joint 4, 11 lb uplift at joint 2 and 18 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.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



August 27, 2025

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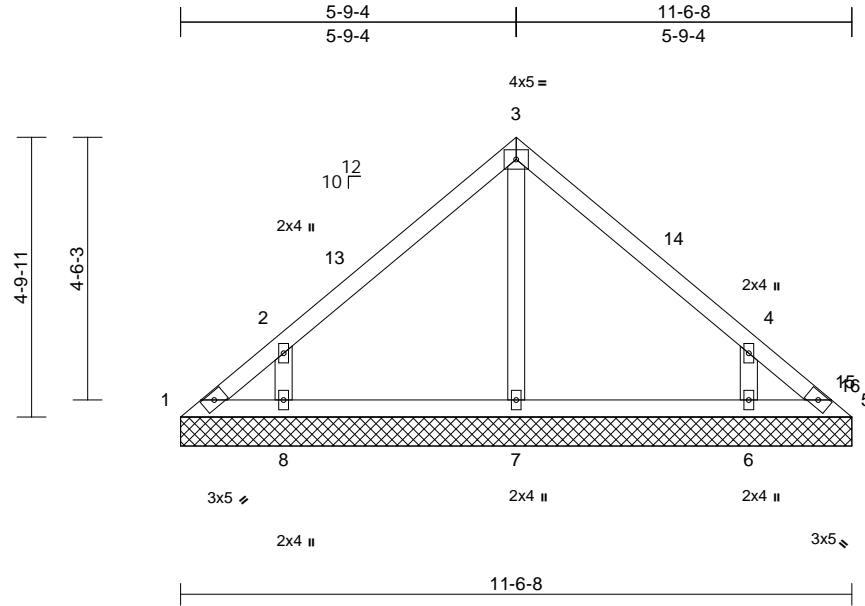
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH	175923870
25080115-01	V1	Valley	1	1	Job Reference (optional)	

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

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Scale = 1:39.6

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	0.18	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.12	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH							
BCDL	10.0									Weight: 47 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size)	1=11-6-8, 5=11-6-8, 6=11-6-8, 7=11-6-8, 8=11-6-8
Max Horiz	1=87 (LC 11)
Max Uplift	1=-25 (LC 10), 5=-13 (LC 13), 6=-66 (LC 15), 8=-69 (LC 14)
Max Grav	1=71 (LC 30), 5=40 (LC 29), 6=309 (LC 30), 7=234 (LC 2), 8=315 (LC 29)

#### FORCES

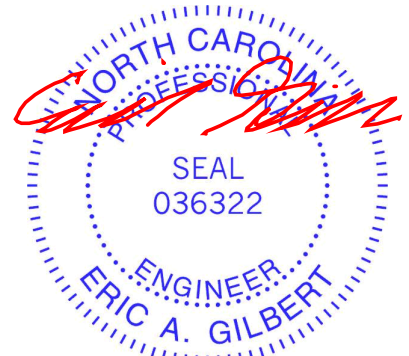
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-107/81, 2-3=-153/117, 3-4=-153/108, 4-5=-97/54
BOT CHORD	1-8=-21/61, 7-8=-16/61, 6-7=-16/61, 5-6=-25/66
WEBS	3-7=-147/0, 2-8=-294/251, 4-6=-293/250

#### 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) and C-C Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 5-9-4, Exterior(2R) 5-9-4 to 9-9-4, Interior (1) 9-9-4 to 11-1-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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
- 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.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 25 lb uplift at joint 1, 13 lb uplift at joint 5, 69 lb uplift at joint 8 and 66 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



August 27, 2025

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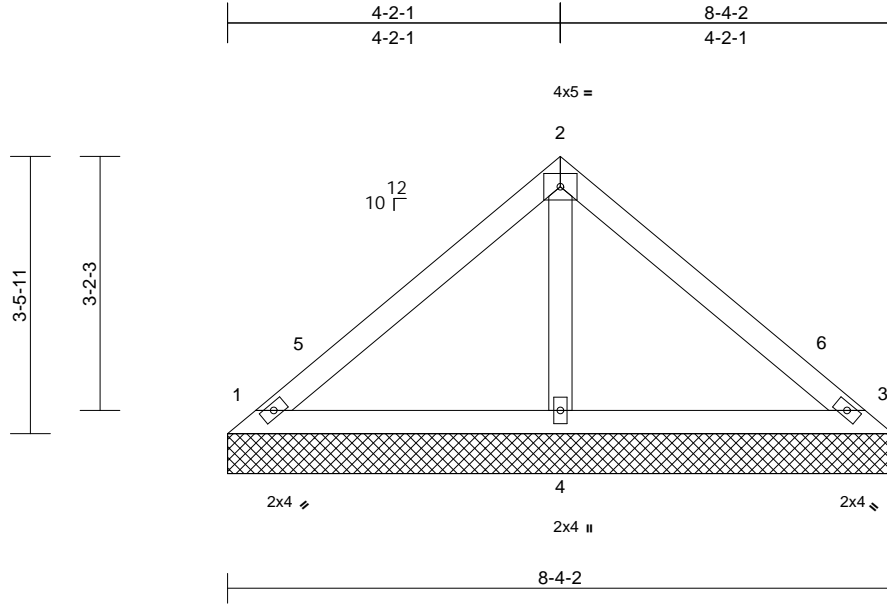
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH
25080115-01	V2	Valley	1	1	175923871
Job Reference (optional)					

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

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Scale = 1:28.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-P								
BCDL	10.0											
											Weight: 31 lb	FT = 20%

#### LUMBER

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

#### BRACING

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

#### REACTIONS

(size)	1=8-4-2, 3=8-4-2, 4=8-4-2
Max Horiz	1=-59 (LC 12)
Max Uplift	1=-11 (LC 15), 3=-16 (LC 15)
Max Grav	1=173 (LC 2), 3=173 (LC 2), 4=257 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-116/73, 2-3=-116/69
BOT CHORD	1-4=-11/48, 3-4=-11/48
WEBS	2-4=-179/77

#### 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) and C-C Exterior(2E) 0-4-13 to 3-4-13, Interior (1) 3-4-13 to 4-2-1, Exterior(2R) 4-2-1 to 7-2-1, Interior (1) 7-2-1 to 7-11-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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

- 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.
- All bearings are assumed to be SP No.2.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 16 lb uplift at joint 3.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



August 27, 2025

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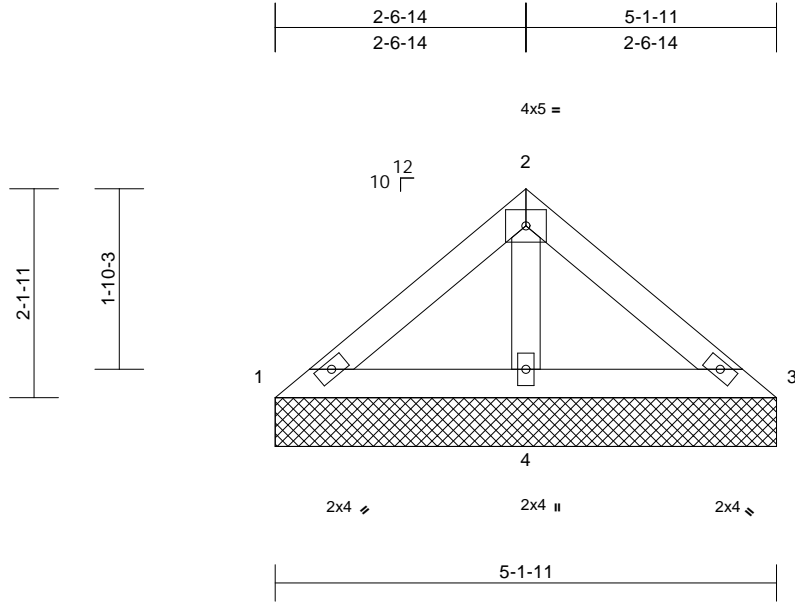
Job	Truss	Truss Type	Qty	Ply	44 Magnolia Acres-Roof-Taylor HA FL GLH
25080115-01	V3	Valley	1	1	Job Reference (optional)
					I75923872

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Run: 8.73 S Aug 13 2025 Print: 8.730 S Aug 13 2025 MiTek Industries, Inc. Tue Aug 26 13:42:52

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Scale = 1:23.6

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	0.07	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	13.9/20.0	Lumber DOL	1.15	BC	0.08	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP							
BCDL	10.0										
										Weight: 18 lb	FT = 20%

#### LUMBER

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

#### BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-1-11 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

#### REACTIONS

(size)	1=5-1-11, 3=5-1-11, 4=5-1-11
Max Horiz	1=-37 (LC 10)
Max Grav	1=62 (LC 35), 3=62 (LC 36), 4=313 (LC 2)

#### FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-56/108, 2-3=-56/108
BOT CHORD	1-4=-96/98, 3-4=-96/98
WEBS	2-4=-236/120

#### 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) 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=1.33
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=13.9 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
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- All bearings are assumed to be SP No.2.
- 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



August 27, 2025

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

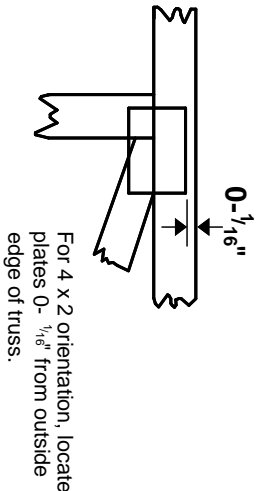
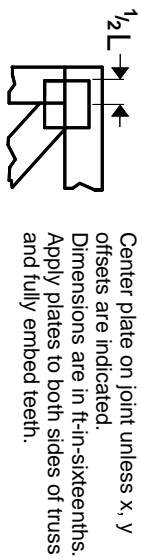
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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

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A MiTek Affiliate

818 Soundside Road  
Edenton, NC 27932

# Symbols

## PLATE LOCATION AND ORIENTATION



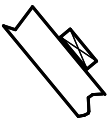
\* Plate location details available in MITek software or upon request.

## PLATE SIZE

**4 X 4**

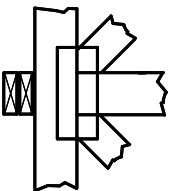
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING

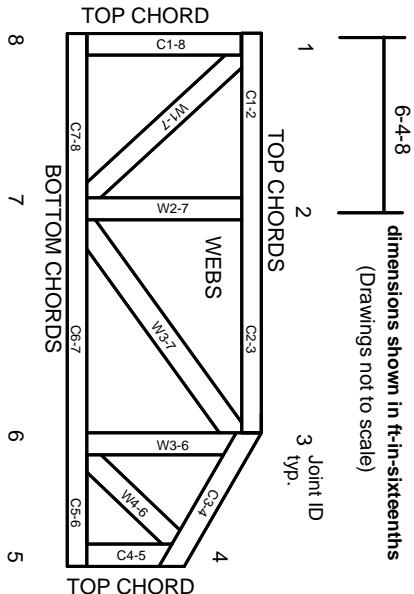


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

## Industry Standards:

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

# Numbering System



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

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

# Product Code Approvals

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

# Design General Notes

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

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# General Safety Notes

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

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

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