

# CARTER<sup>®</sup>

## Lumber

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

Phone #:919-775-1450

**Builder:** HH Hunt Homes Raleigh  
Durham

**Model:** 17 Magnolia Acres  
Greyson FA



#### THE PLACEMENT PLAN NOTES:

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

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

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

**General Notes:** \*\* CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION. \*\* ALL POINT LOADS FROM ABOVE MUST BE TRANSFERRED TO BEARING FROM UNDER SIDE OF SHEATHING.

Revisions	
00/00/00	Name

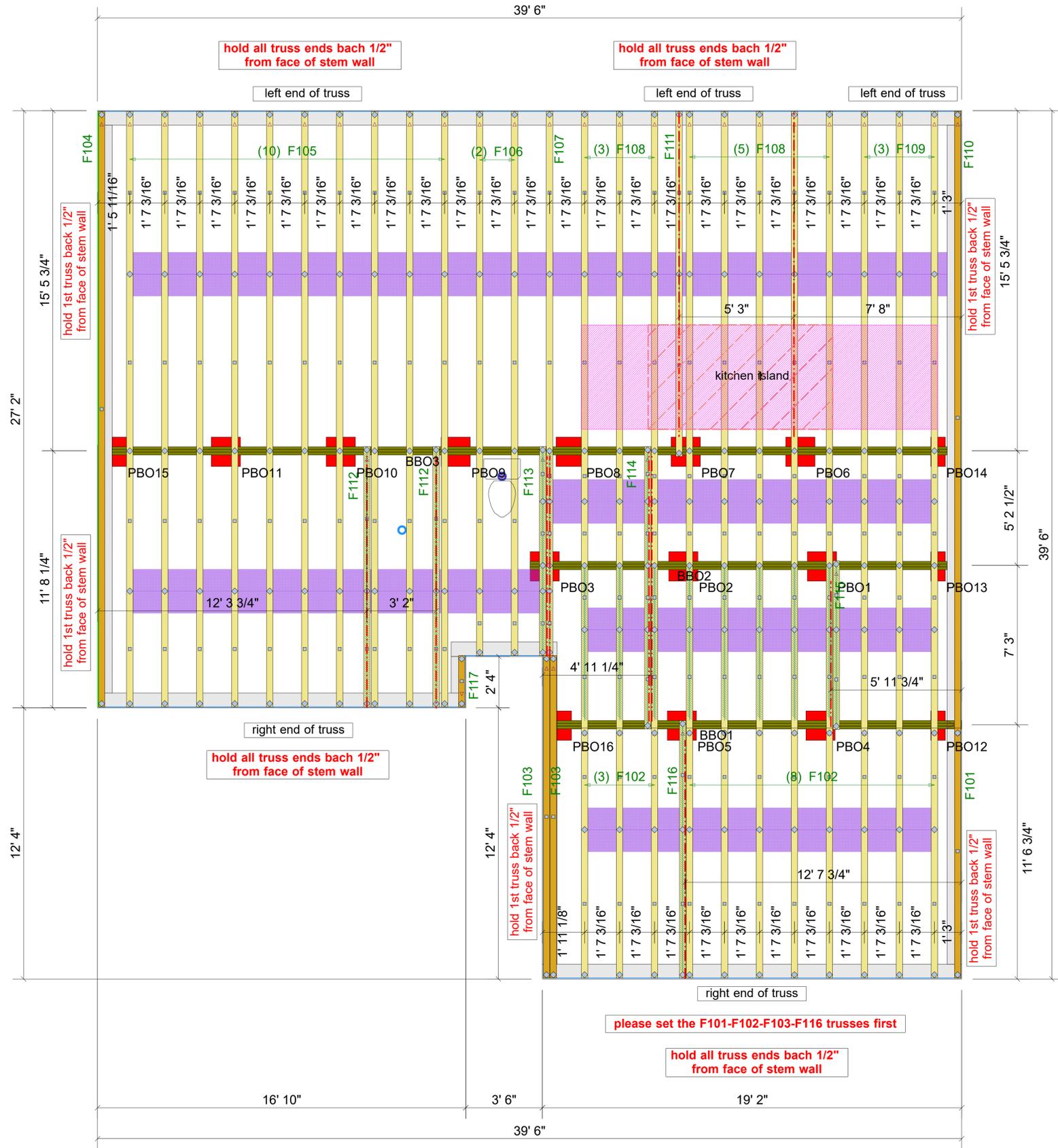
**THIS IS A TRUSS PLACEMENT DIAGRAM ONLY.** These trusses are designed as individual components to be incorporated into the building design at the specification of the building designer. See individual design sheets for each truss design identified on the placement drawing. The building designer is responsible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



HH Hunt Homes Raleigh Durham  
 17 Magnolia Acres  
 Greyson FA  
**FLOOR PLACEMENT PLAN**

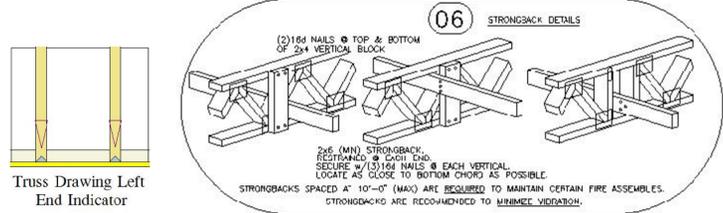
Scale: NTS  
 Date: 5/5/2025  
 Designer: Nate Donaldson  
 Project Number: 25040195-02  
 Sheet Number:

1/1



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

\*\* DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT. \*\* ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS. \*\* FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. \*\* TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS. \*\* PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES.



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

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: 25040195-02  
Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG SL GRH

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: I73186494 thru I73186510

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

North Carolina COA: C-0844



May 5, 2025

Gilbert, Eric

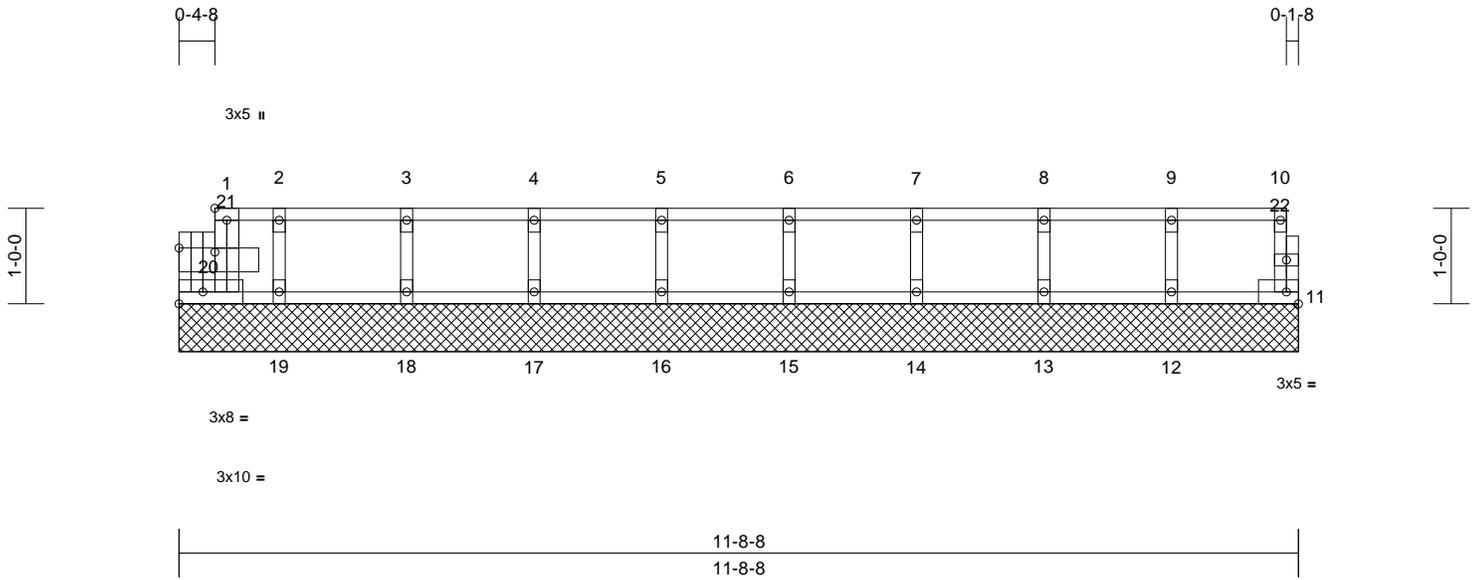
**IMPORTANT NOTE:** The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), 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 25040195-02	Truss F101	Truss Type Floor Supported Gable	Qty 1	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186494 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:10  
ID:?\_TH1qR3t\_61louVX7nNzTAT6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?#

Page: 1



Scale = 1:24

Plate Offsets (X, Y): [1:Edge,0-1-8], [21:0-4-8,0-0-8]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 50 lb	FT = 20%F, 11%E

**LUMBER**

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

6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard

**BRACING**

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

**REACTIONS** (size) 11=11-8-8, 12=11-8-8, 13=11-8-8, 14=11-8-8, 15=11-8-8, 16=11-8-8, 17=11-8-8, 18=11-8-8, 19=11-8-8, 20=11-8-8

Max Grav 11=42 (LC 1), 12=117 (LC 1), 13=118 (LC 1), 14=117 (LC 1), 15=117 (LC 1), 16=118 (LC 1), 17=116 (LC 1), 18=122 (LC 1), 19=89 (LC 1), 20=16 (LC 1)

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

TOP CHORD 1-20=-13/0, 10-11=-39/0, 1-2=-7/0, 2-3=-7/0, 3-4=-7/0, 4-5=-7/0, 5-6=-7/0, 6-7=-7/0, 7-8=-7/0, 8-9=-7/0, 9-10=-7/0

BOT CHORD 19-20=0/7, 18-19=0/7, 17-18=0/7, 16-17=0/7, 15-16=0/7, 14-15=0/7, 13-14=0/7, 12-13=0/7, 11-12=0/7

WEBS 9-12=-105/0, 8-13=-107/0, 7-14=-106/0, 6-15=-107/0, 5-16=-107/0, 4-17=-105/0, 3-18=-111/0, 2-19=-83/0

**NOTES**

- All plates are 1.5x3 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 1-4-0 oc.
- All bearings are assumed to be SP No.2.



May 5, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



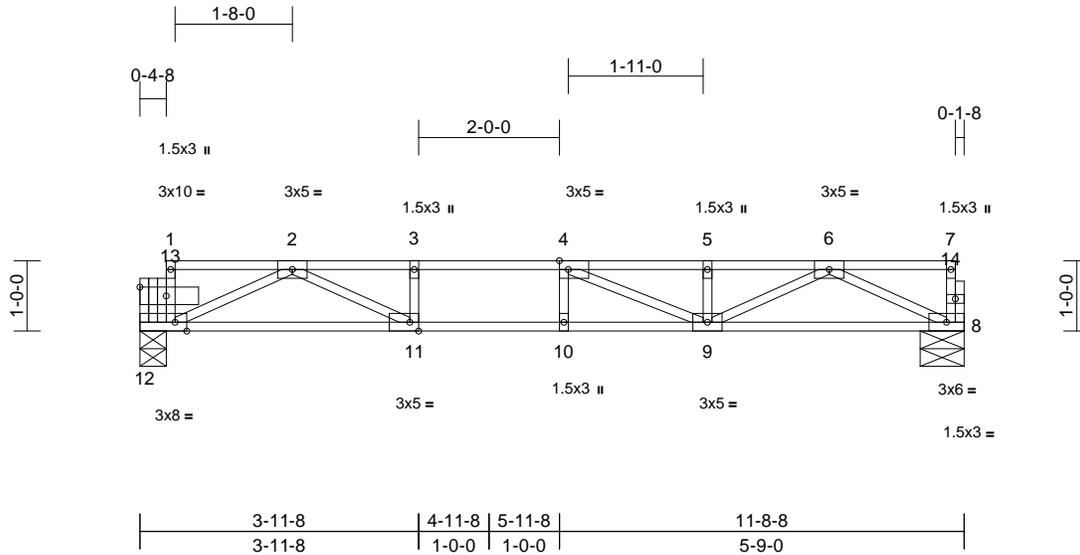
818 Soundside Road  
Edenton, NC 27932

Job 25040195-02	Truss F102	Truss Type Floor	Qty 11	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186495 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:11  
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Page: 1



Scale = 1:32.6

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.58	Vert(LL)	-0.14	9-10	>989	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.77	Vert(CT)	-0.18	9-10	>762	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.02	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 57 lb	FT = 20%F, 11%E

**LUMBER**

TOP CHORD 2x4 SP No.2(flat) Uniform Loads (lb/ft)  
 BOT CHORD 2x4 SP No.2(flat) Vert: 8-12=-8, 1-7=-80  
 WEBS 2x4 SP No.3(flat) Concentrated Loads (lb)  
 OTHERS 2x4 SP No.3(flat) Vert: 1=-223

**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) 8=0-7-8, 12=0-4-8  
 Max Grav 8=497 (LC 1), 12=703 (LC 1)

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

TOP CHORD 1-12=-317/0, 7-8=-60/0, 1-2=-67/0,  
 2-3=-1558/0, 3-4=-1558/0, 4-5=-1443/0,  
 5-6=-1443/0, 6-7=-4/0  
 BOT CHORD 11-12=0/959, 10-11=0/1558, 9-10=0/1558,  
 8-9=0/878  
 WEBS 3-11=-237/0, 4-10=-82/17, 2-12=-998/0,  
 2-11=0/712, 6-8=-973/0, 6-9=0/633,  
 5-9=-203/0, 4-9=-351/48

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.2 .
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 254 lb down and 50 lb up at 0-5-4 on top chord. The design/ selection of such connection device(s) is the responsibility of others.

**LOAD CASE(S)** Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,  
 Plate Increase=1.00



May 5, 2025

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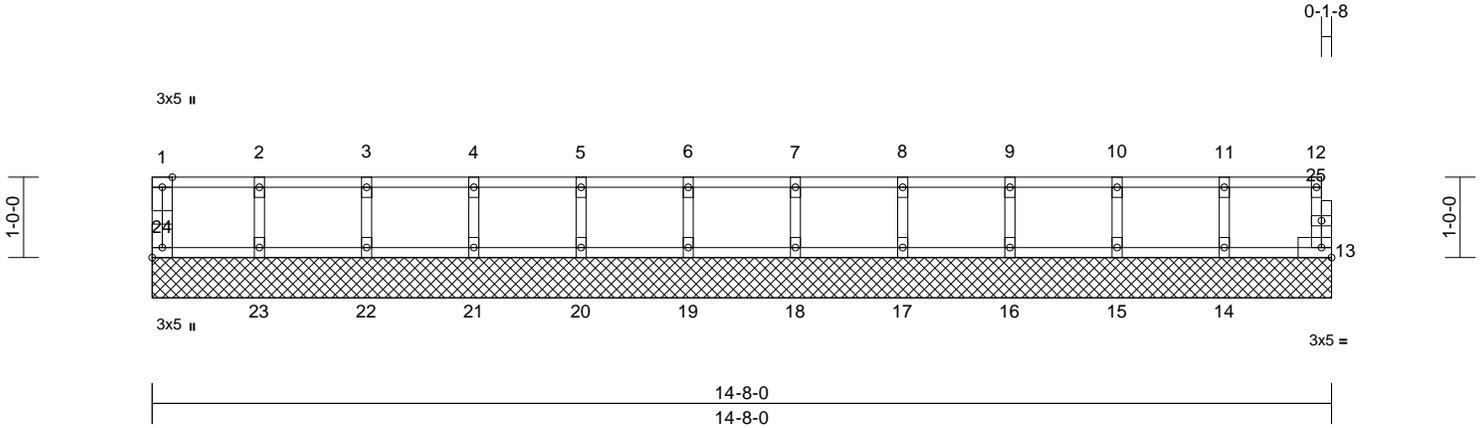
818 Soundside Road  
 Edenton, NC 27932

Job 25040195-02	Truss F103	Truss Type Floor Supported Gable	Qty 2	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186496 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:11  
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Page: 1



Scale = 1:28.5

Plate Offsets (X, Y): [24:Edge,0-1-8]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	Horiz(TL)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR						Weight: 59 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 13=14-8-0, 14=14-8-0, 15=14-8-0, 16=14-8-0, 17=14-8-0, 18=14-8-0, 19=14-8-0, 20=14-8-0, 21=14-8-0, 22=14-8-0, 23=14-8-0, 24=14-8-0  
 Max Grav 13=45 (LC 1), 14=114 (LC 1), 15=118 (LC 1), 16=117 (LC 1), 17=117 (LC 1), 18=117 (LC 1), 19=117 (LC 1), 20=117 (LC 1), 21=117 (LC 1), 22=118 (LC 1), 23=114 (LC 1), 24=50 (LC 1)

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

TOP CHORD 1-24=-45/0, 12-13=-41/0, 1-2=-9/0, 2-3=-9/0, 3-4=-9/0, 4-5=-9/0, 5-6=-9/0, 6-7=-9/0, 7-8=-9/0, 8-9=-9/0, 9-10=-9/0, 10-11=-9/0, 11-12=-9/0  
 BOT CHORD 23-24=0/9, 22-23=0/9, 21-22=0/9, 20-21=0/9, 19-20=0/9, 18-19=0/9, 17-18=0/9, 16-17=0/9, 15-16=0/9, 14-15=0/9, 13-14=0/9  
 WEBS 11-14=-104/0, 10-15=-107/0, 9-16=-106/0, 8-17=-107/0, 7-18=-107/0, 6-19=-107/0, 5-20=-107/0, 4-21=-106/0, 3-22=-107/0, 2-23=-104/0

**NOTES**

- 1) All plates are 1.5x3 MT20 unless otherwise indicated.
- 2) Gable requires continuous bottom chord bearing.
- 3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

- 4) Gable studs spaced at 1-4-0 oc.
  - 5) All bearings are assumed to be SP No.2 .
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard



May 5, 2025

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Edenton, NC 27932

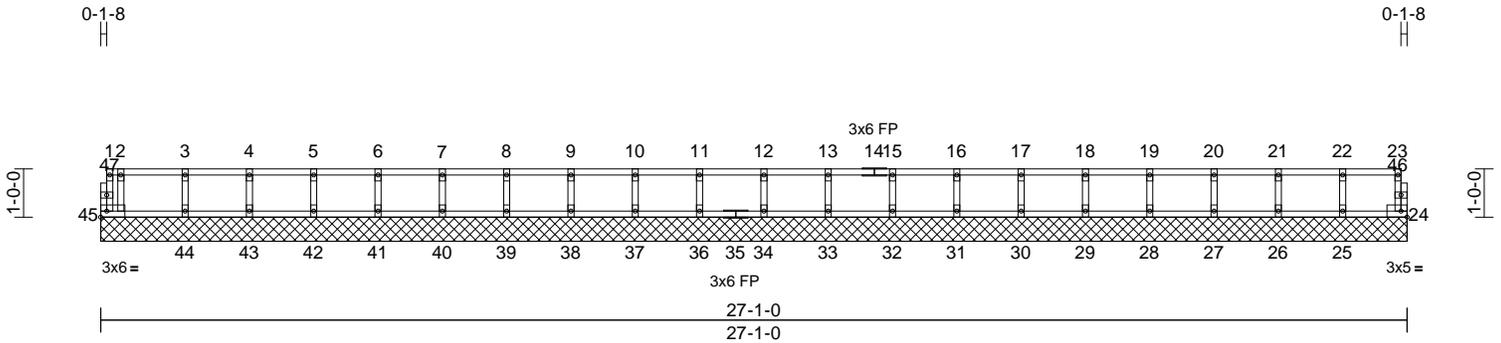
Job	Truss	Truss Type	Qty	Ply	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG 173186497
25040195-02	F104	Floor Supported Gable	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:11

Page: 1

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Scale = 1:47.5

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	24	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR							Weight: 106 lb	FT = 20%F, 11%E

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

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

**REACTIONS** (size) 24=27-1-0, 25=27-1-0, 26=27-1-0, 27=27-1-0, 28=27-1-0, 29=27-1-0, 30=27-1-0, 31=27-1-0, 32=27-1-0, 33=27-1-0, 34=27-1-0, 36=27-1-0, 37=27-1-0, 38=27-1-0, 39=27-1-0, 40=27-1-0, 41=27-1-0, 42=27-1-0, 43=27-1-0, 44=27-1-0, 45=27-1-0  
Max Grav 24=49 (LC 1), 25=109 (LC 1), 26=119 (LC 1), 27=117 (LC 1), 28=117 (LC 1), 29=117 (LC 1), 30=117 (LC 1), 31=117 (LC 1), 32=117 (LC 1), 33=117 (LC 1), 34=117 (LC 1), 36=117 (LC 1), 37=117 (LC 1), 38=117 (LC 1), 39=117 (LC 1), 40=117 (LC 1), 41=117 (LC 1), 42=118 (LC 1), 43=113 (LC 1), 44=131 (LC 1), 45=68 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 23-24=-43/0, 1-45=0/9, 1-2=0/1, 2-3=-14/0, 3-4=-14/0, 4-5=-14/0, 5-6=-14/0, 6-7=-14/0, 7-8=-14/0, 8-9=-14/0, 9-10=-14/0, 10-11=-14/0, 11-12=-14/0, 12-13=-14/0, 13-15=-14/0, 15-16=-14/0, 16-17=-14/0, 17-18=-14/0, 18-19=-14/0, 19-20=-14/0, 20-21=-14/0, 21-22=-14/0, 22-23=-14/0

**BOT CHORD** 44-45=0/14, 43-44=0/14, 42-43=0/14, 41-42=0/14, 40-41=0/14, 39-40=0/14, 38-39=0/14, 37-38=0/14, 36-37=0/14, 34-36=0/14, 33-34=0/14, 32-33=0/14, 31-32=0/14, 30-31=0/14, 29-30=0/14, 28-29=0/14, 27-28=0/14, 26-27=0/14, 25-26=0/14, 24-25=0/14  
**WEBS** 22-25=-102/0, 21-26=-108/0, 20-27=-106/0, 19-28=-107/0, 18-29=-107/0, 17-30=-107/0, 16-31=-107/0, 15-32=-107/0, 13-33=-107/0, 12-34=-107/0, 11-36=-107/0, 10-37=-107/0, 9-38=-107/0, 8-39=-107/0, 7-40=-107/0, 6-41=-106/0, 5-42=-107/0, 4-43=-104/0, 3-44=-115/0, 2-45=-75/0

**NOTES**  
1) All plates are 1.5x3 MT20 unless otherwise indicated.  
2) Gable requires continuous bottom chord bearing.  
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).  
4) Gable studs spaced at 1-4-0 oc.  
5) All bearings are assumed to be SP No.2.  
6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



May 5, 2025

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Edenton, NC 27932

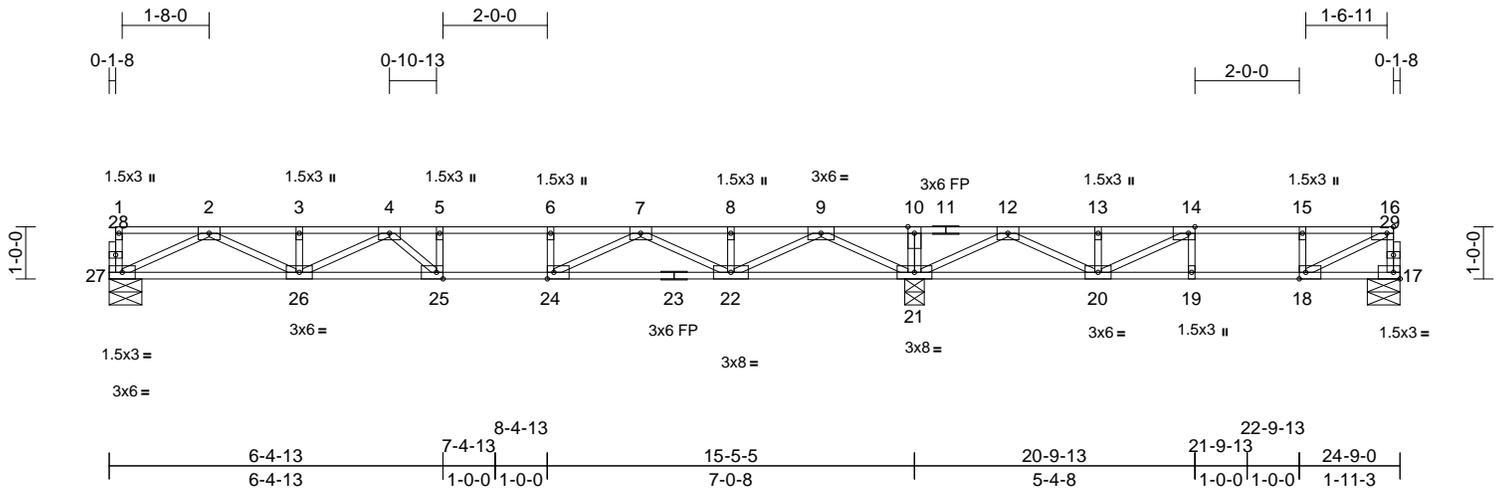


Job 25040195-02	Truss F106	Truss Type Floor	Qty 2	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG 173186499
					Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:11  
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Page: 1



Scale = 1:44

Plate Offsets (X, Y): [14:0-1-8,Edge], [16:0-1-8,Edge], [18:0-1-8,Edge], [24:0-1-8,Edge], [25:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.67	Vert(LL)	-0.18	25	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.83	Vert(CT)	-0.24	25-26	>766	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.03	21	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 119 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 17=0-7-8, 21=0-4-8, 27=0-7-8  
Max Uplift 17=19 (LC 3)  
Max Grav 17=304 (LC 4), 21=1358 (LC 1), 27=591 (LC 3)

**FORCES**

(lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-27=-57/0, 16-17=-316/50, 1-2=-4/0, 2-3=-1799/0, 3-4=-1799/0, 4-5=-2256/0, 5-6=-2256/0, 6-7=-2256/0, 7-8=-1067/185, 8-9=-1067/185, 9-10=0/1806, 10-12=0/1806, 12-13=-426/567, 13-14=-426/567, 14-15=-567/171, 15-16=-567/171  
BOT CHORD 26-27=0/1073, 25-26=0/2184, 24-25=0/2256, 22-24=0/1770, 21-22=-550/46, 20-21=-902/0, 19-20=-171/567, 18-19=-171/567, 17-18=-4/23  
WEBS 10-21=-166/0, 16-18=-189/614, 5-25=-143/71, 6-24=-258/0, 14-19=-37/86, 15-18=-219/37, 2-27=-1189/0, 2-26=0/814, 3-26=-136/0, 4-26=-431/0, 4-25=-201/249, 9-21=-1540/0, 9-22=0/1217, 8-22=-151/0, 7-22=-854/0, 7-24=0/780, 12-21=-1087/0, 12-20=0/764, 13-20=-163/21, 14-20=-593/0

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.2.

- 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 17.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard



May 5, 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)



818 Soundside Road  
Edenton, NC 27932



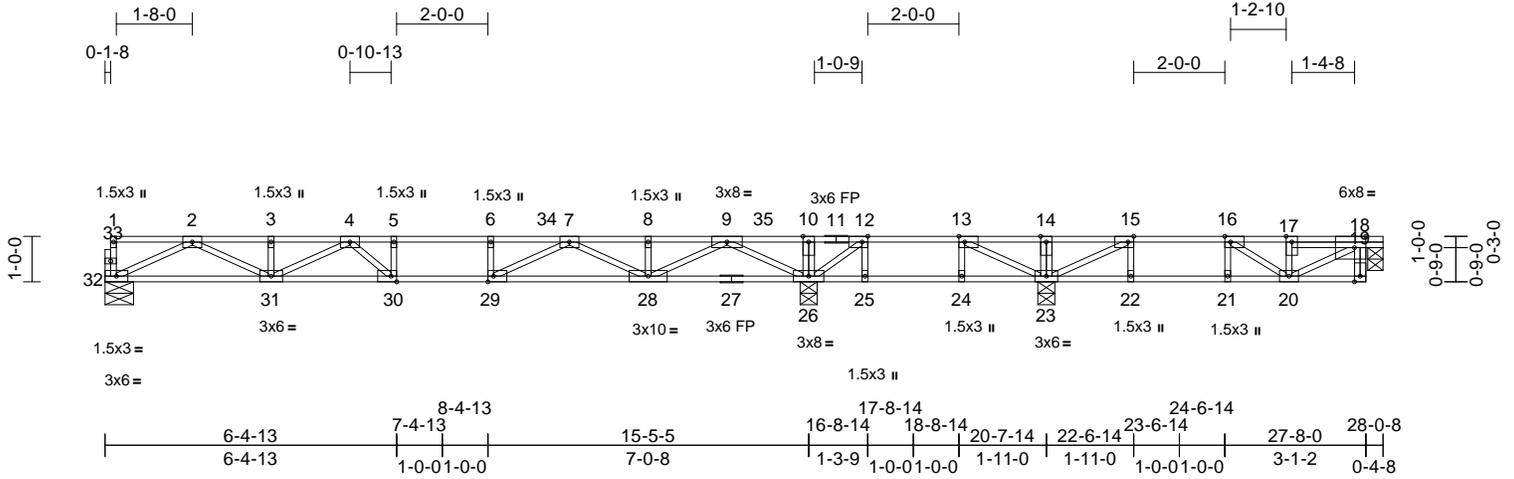


Job 25040195-02	Truss F109	Truss Type Floor	Qty 3	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG 173186502 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
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Page: 1



Scale = 1:50.3

Plate Offsets (X, Y): [12:0-1-8,Edge], [13:0-1-8,Edge], [15:0-1-8,Edge], [16:0-1-8,Edge], [18:0-3-0,Edge], [29:0-1-8,Edge], [30:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.96	Vert(LL)	-0.18	29-30	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.84	Vert(CT)	-0.28	29-30	>659	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.65	Horz(CT)	0.04	26	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH								
											Weight: 136 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size)

18=0-4-0, 23=0-4-8, 26=0-4-8, 32=0-7-8
Max Uplift 18=-11 (LC 3)
Max Grav 18=262 (LC 4), 23=538 (LC 4), 26=1258 (LC 16), 32=644 (LC 16)

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

TOP CHORD	1-32=-58/0, 18-19=-5/1, 1-2=-4/0, 2-3=-2007/0, 3-4=-2007/0, 4-5=-2697/0, 5-6=-2697/0, 6-7=-2697/0, 7-8=-1665/0, 8-9=-1665/0, 9-10=0/1350, 10-12=0/1350, 12-13=0/918, 13-14=0/757, 14-15=0/757, 15-16=-359/282, 16-17=-385/8, 17-18=-386/10
BOT CHORD	31-32=0/1177, 30-31=0/2505, 29-30=0/2697, 28-29=0/2379, 26-28=0/457, 25-26=-918/0, 24-25=-918/0, 23-24=-918/0, 22-23=-282/359, 21-22=-282/359, 20-21=-282/359, 19-20=0/0
WEBS	17-20=-199/0, 18-20=-9/434, 10-26=-56/0, 14-23=-153/0, 12-26=-726/0, 13-23=-206/354, 16-20=0/327, 5-30=-259/0, 6-29=-175/1, 12-25=0/147, 13-24=-94/0, 15-22=0/124, 16-21=-132/0, 2-32=-1305/0, 2-31=0/930, 3-31=-143/0, 4-31=-557/0, 4-30=0/487, 9-26=-1913/0, 9-28=0/1367, 8-28=-220/0, 7-28=-813/0, 7-29=0/510, 15-23=-892/0

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All plates are 3x5 MT20 unless otherwise indicated.
  - 3) All bearings are assumed to be SP No.2.
  - 4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 18.
  - 5) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - 6) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - 7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
  - 8) CAUTION, Do not erect truss backwards.

**LOAD CASE(S)** Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 19-32=-8, 1-34=-80, 34-35=-127, 18-35=-80



May 5, 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/TPI Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacompnents.com)



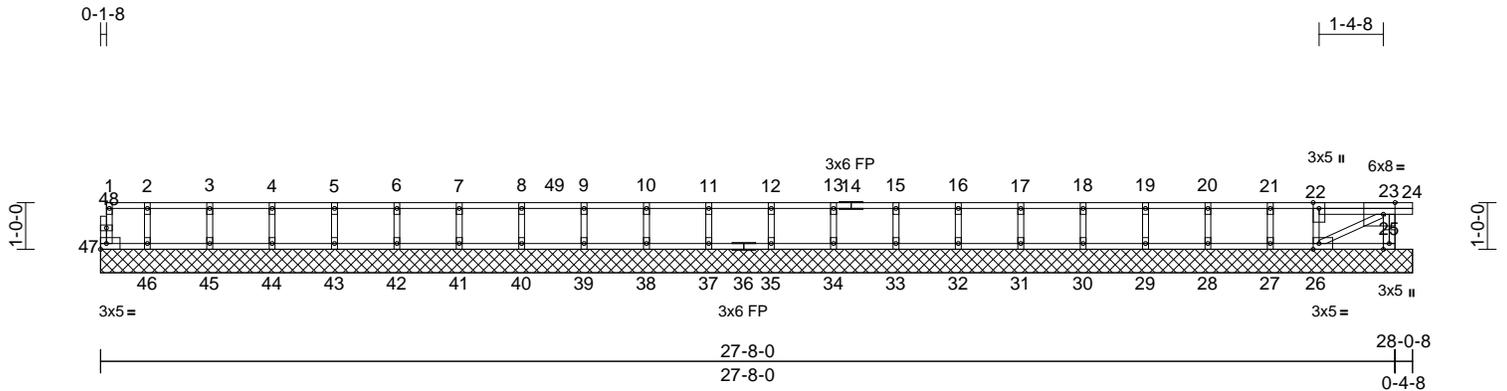
818 Soundside Road  
Edenton, NC 27932

Job 25040195-02	Truss F110	Truss Type Floor Supported Gable	Qty 1	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186503 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
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Page: 1



Scale = 1:49

Plate Offsets (X, Y): [23:0-3-0,Edge], [26:0-1-8,Edge]

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.00	25	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 114 lb	FT = 20%F, 11%E

LUMBER		BOT CHORD	
TOP CHORD	2x4 SP No.2(flat)	46-47=0/1, 45-46=0/1, 44-45=0/1, 43-44=0/1,	
BOT CHORD	2x4 SP No.2(flat)	42-43=0/1, 41-42=0/1, 40-41=0/1, 39-40=0/1,	
WEBS	2x4 SP No.3(flat)	38-39=0/1, 37-38=0/1, 35-37=0/1, 34-35=0/1,	
OTHERS	2x4 SP No.3(flat)	33-34=0/1, 32-33=0/1, 31-32=0/1, 30-31=0/1,	
		29-30=0/1, 28-29=0/1, 27-28=0/1, 26-27=0/1,	
		25-26=0/0	
		22-26=-100/0, 23-26=0/2, 21-27=-90/0,	
		20-28=-110/0, 19-29=-106/0, 18-30=-107/0,	
		17-31=-107/0, 16-32=-107/0, 15-33=-107/0,	
		13-34=-107/0, 12-35=-107/0, 11-37=-107/0,	
		10-38=-107/0, 9-39=-107/0, 8-40=-107/0,	
		7-41=-107/0, 6-42=-107/0, 5-43=-107/0,	
		4-44=-106/0, 3-45=-109/0, 2-46=-95/0	

REACTIONS	(size)	
		25=28-0-8, 26=28-0-8, 27=28-0-8,
		28=28-0-8, 29=28-0-8, 30=28-0-8,
		31=28-0-8, 32=28-0-8, 33=28-0-8,
		34=28-0-8, 35=28-0-8, 37=28-0-8,
		38=28-0-8, 39=28-0-8, 40=28-0-8,
		41=28-0-8, 42=28-0-8, 43=28-0-8,
		44=28-0-8, 45=28-0-8, 46=28-0-8,
		47=28-0-8
Max Grav		25=109 (LC 1), 26=112 (LC 1),
		27=98 (LC 1), 28=121 (LC 1),
		29=116 (LC 1), 30=118 (LC 1),
		31=117 (LC 1), 32=117 (LC 1),
		33=117 (LC 1), 34=117 (LC 1),
		35=118 (LC 1), 37=118 (LC 1),
		38=118 (LC 1), 39=118 (LC 1),
		40=117 (LC 1), 41=117 (LC 1),
		42=117 (LC 1), 43=117 (LC 1),
		44=116 (LC 1), 45=120 (LC 1),
		46=105 (LC 1), 47=23 (LC 1)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-47=-21/0, 23-25=-104/0, 1-2=-1/0, 2-3=-1/0,
	3-4=-1/0, 4-5=-1/0, 5-6=-1/0, 6-7=-1/0,
	7-8=-1/0, 8-9=-1/0, 9-10=-1/0, 10-11=-1/0,
	11-12=-1/0, 12-13=-1/0, 13-15=-1/0,
	15-16=-1/0, 16-17=-1/0, 17-18=-1/0,
	18-19=-1/0, 19-20=-1/0, 20-21=-1/0,
	21-22=-1/0, 22-23=-4/1, 23-24=0/0

- NOTES**
- All plates are 1.5x3 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 1-4-0 oc.
  - All bearings are assumed to be SP No.2 .
  - Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
  - CAUTION, Do not erect truss backwards.
- LOAD CASE(S)** Standard
- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 25-47=-8, 1-49=-80, 12-49=-80, 12-23=-80, 23-24=-80



**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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**TRENCO**  
A MiTek Affiliate

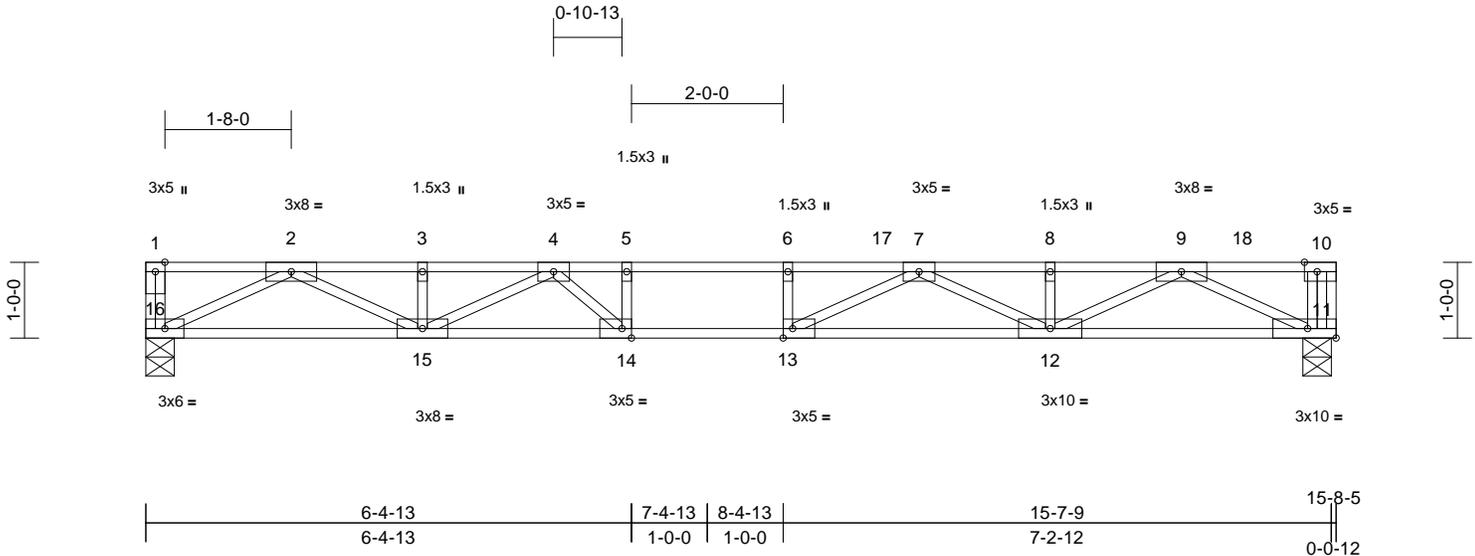
818 Soundside Road  
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186504
25040195-02	F111	Floor	1	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
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Page: 1



Scale = 1:30.2

Plate Offsets (X, Y): [10:0-2-0,Edge], [13:0-1-8,Edge], [14:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.64	Vert(LL)	-0.24	12-13	>781	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	1.00	Vert(CT)	-0.38	12-13	>481	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.67	Horz(CT)	0.06	11	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 77 lb	FT = 20%F, 11%E

- LUMBER**  
TOP CHORD 2x4 SP 2400F 2.0E(flat)  
BOT CHORD 2x4 SP No.1(flat)  
WEBS 2x4 SP No.3(flat)
- BRACING**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
- REACTIONS** (size) 11=0-4-8, 16=0-4-8  
Max Grav 11=993 (LC 1), 16=888 (LC 1)
- FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-16=-77/0, 10-11=-82/0, 1-2=0/0,  
2-3=-2812/0, 3-4=-2812/0, 4-5=-4005/0,  
5-6=-4005/0, 6-7=-4005/0, 7-8=-3147/0,  
8-9=-3147/0, 9-10=0/0  
BOT CHORD 15-16=0/1622, 14-15=0/3585, 13-14=0/4005,  
12-13=0/3841, 11-12=0/1897  
WEBS 5-14=-457/0, 6-13=-183/20, 2-16=-1805/0,  
2-15=0/1334, 3-15=-192/0, 4-15=-866/0,  
4-14=0/846, 7-13=-170/507, 7-12=-778/0,  
8-12=-230/0, 9-12=0/1400, 9-11=-2099/0

Vert: 11-16=-10, 1-17=-100, 17-18=-140, 10-18=-100

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
  - 2) All bearings are assumed to be SP No.1 .
  - 3) Load case(s) 1 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
  - 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

- LOAD CASE(S)** Standard
- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)



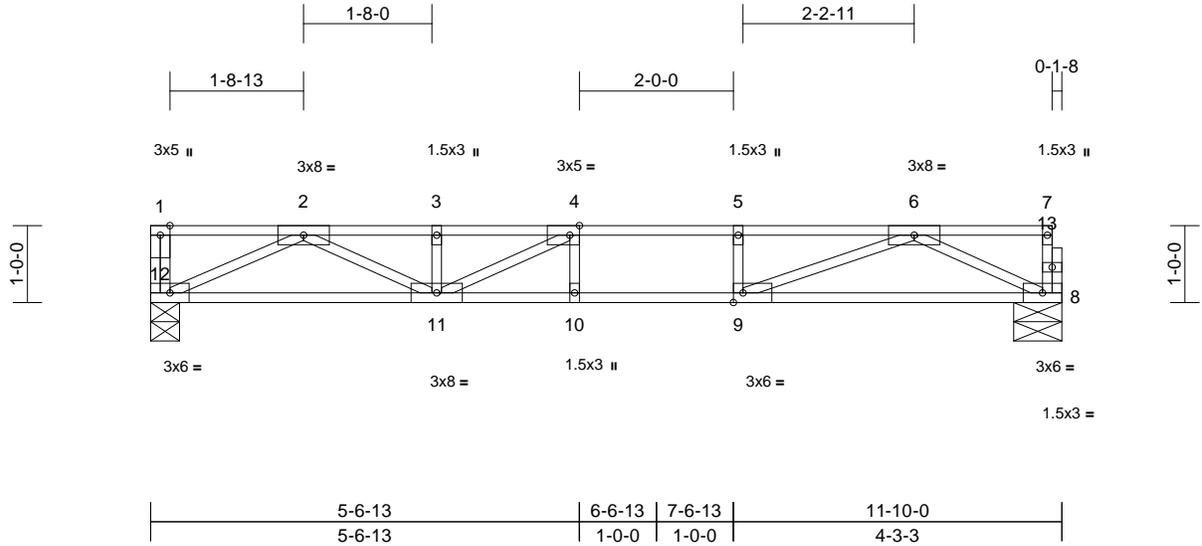
May 5, 2025

Job	Truss	Truss Type	Qty	Ply	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186505
25040195-02	F112	Floor	2	1	Job Reference (optional)

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

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
ID:XovvVhpplasFPbAcKn0uEazTAT7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:29.8

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.93	Vert(LL)	-0.22	10-11	>620	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.79	Vert(CT)	-0.29	10-11	>479	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.79	Horz(CT)	0.03	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 57 lb	FT = 20%F, 11%E

**LUMBER**  
TOP CHORD 2x4 SP No.1(flat)  
BOT CHORD 2x4 SP 2400F 2.0E(flat)  
WEBS 2x4 SP No.3(flat)  
OTHERS 2x4 SP No.3(flat)

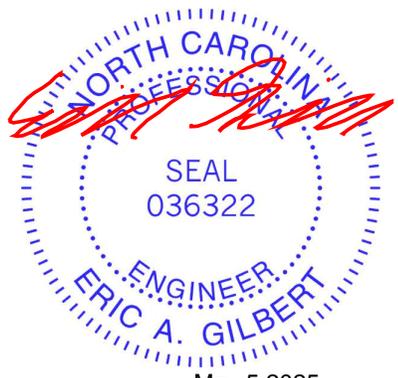
**BRACING**  
TOP CHORD Structural wood sheathing directly applied or 4-11-7 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 8=0-7-8, 12=0-4-8  
Max Grav 8=1089 (LC 1), 12=1101 (LC 1)

**FORCES** (lb) - Maximum Compression/Maximum Tension  
TOP CHORD 1-12=-141/0, 7-8=-125/0, 1-2=0/0,  
2-3=-3174/0, 3-4=-3174/0, 4-5=-3512/0,  
5-6=-3512/0, 6-7=-9/0  
BOT CHORD 11-12=0/2011, 10-11=0/3512, 9-10=0/3512,  
8-9=0/1966  
WEBS 4-10=-198/68, 5-9=-488/0, 6-8=-2178/0,  
6-9=0/1660, 4-11=-835/45, 3-11=-393/0,  
2-11=0/1303, 2-12=-2222/0

**NOTES**  
1) Unbalanced floor live loads have been considered for this design.  
2) All bearings are assumed to be SP 2400F 2.0E .  
3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.  
4) CAUTION, Do not erect truss backwards.  
5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard  
1) Dead + Floor Live (balanced): Lumber Increase=1.00,  
Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 8-12=-10, 1-7=-180 (F=-80)



**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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute (www.tpinst.org) and **BCSI Building Component Safety Information** available from the Structural Building Component Association (www.sbcacomponents.com)

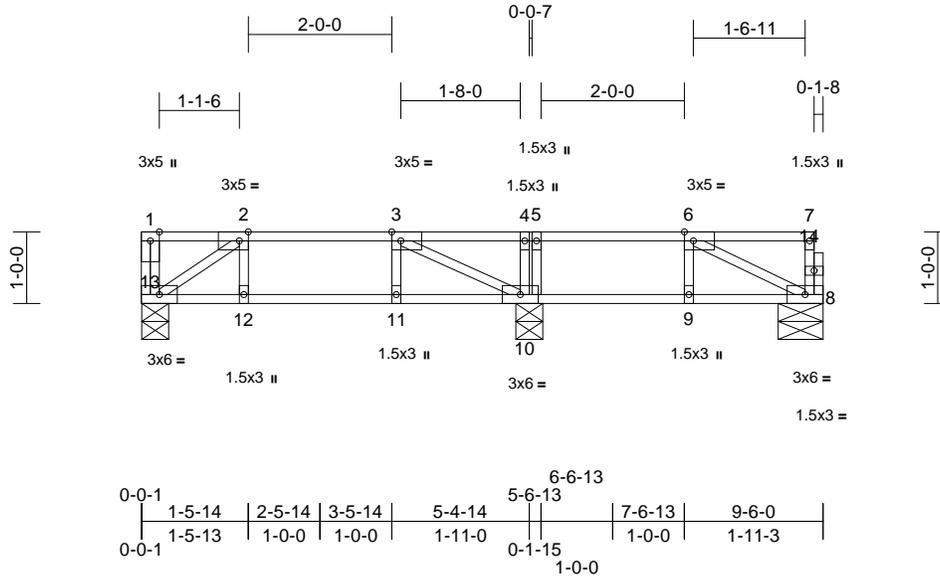


Job 25040195-02	Truss F113	Truss Type Floor	Qty 1	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186506 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
ID:XovvVhpplaspFPbAcKn0uEazTAT7-RfC?PsB70Hq3NSgPqnL8w3uITxBGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:32

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.82	Vert(LL)	-0.05	8-9	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.65	Vert(CT)	-0.06	8-9	>789	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.24	Horz(CT)	0.01	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 45 lb	FT = 20%F, 11%E

**LUMBER**

Vert: 8-13=-10, 1-7=-180 (F=-80)

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

**BRACING**

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

**REACTIONS**

- (size) 8=0-7-8, 10=0-4-8, 13=0-4-8
- Max Grav 8=447 (LC 7), 10=803 (LC 9), 13=533 (LC 10)

**FORCES**

(lb) - Maximum Compression/Maximum Tension

- TOP CHORD 1-13=-60/47, 7-8=-149/0, 1-2=0/0, 2-3=-772/0, 3-4=-420/0, 4-5=-420/0, 5-6=-570/0, 6-7=-11/0
- BOT CHORD 12-13=0/772, 11-12=0/772, 10-11=0/772, 9-10=0/570, 8-9=0/570
- WEBS 2-12=0/116, 3-11=-108/0, 4-10=-152/501, 5-10=-818/0, 6-9=-59/0, 2-13=-930/0, 3-10=-673/99, 6-8=-626/0

**NOTES**

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- CAUTION, Do not erect truss backwards.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)



May 5, 2025

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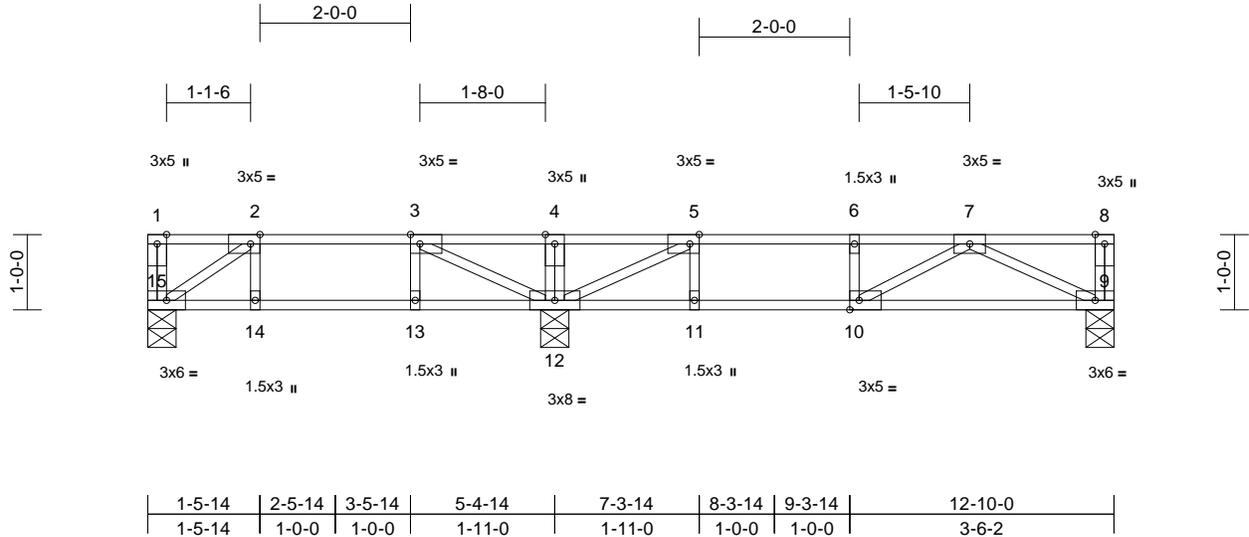
818 Soundside Road  
Edenton, NC 27932

Job 25040195-02	Truss F114	Truss Type Floor	Qty 1	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG 173186507 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
ID:XovvVhpplaspFPbAcKn0uEazTAT7-RfC?PsB70Hq3NSgPqnL8w3uITXbGkWrCDoi7J4zJC?f

Page: 1



Scale = 1:30.5

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [5:0-1-8,Edge], [10:0-1-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.98	Vert(LL)	-0.13	9-10	>673	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.18	9-10	>490	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.02	9	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 62 lb	FT = 20%F, 11%E

**LUMBER**

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

Uniform Loads (lb/ft)

Vert: 9-15=-10, 1-8=-180 (F=-80)

**BRACING**

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

**REACTIONS** (size) 9=0-4-8, 12=0-4-8, 15=0-4-8  
Max Grav 9=709 (LC 7), 12=1208 (LC 8), 15=514 (LC 10)

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

TOP CHORD 1-15=-70/33, 8-9=-126/0, 1-2=0/0, 2-3=-734/0, 3-4=-140/194, 4-5=-140/194, 5-6=-1410/0, 6-7=-1410/0, 7-8=0/0

BOT CHORD 14-15=0/734, 13-14=0/734, 12-13=0/734, 11-12=0/1410, 10-11=0/1410, 9-10=0/1133

WEBS 2-14=0/85, 3-13=-35/8, 4-12=-302/0, 5-11=0/138, 6-10=-190/0, 2-15=-884/0, 3-12=-854/0, 5-12=-1476/0, 7-9=-1261/0, 7-10=0/350

**NOTES**

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 3) All bearings are assumed to be SP No.2.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.
- 6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00



May 5, 2025

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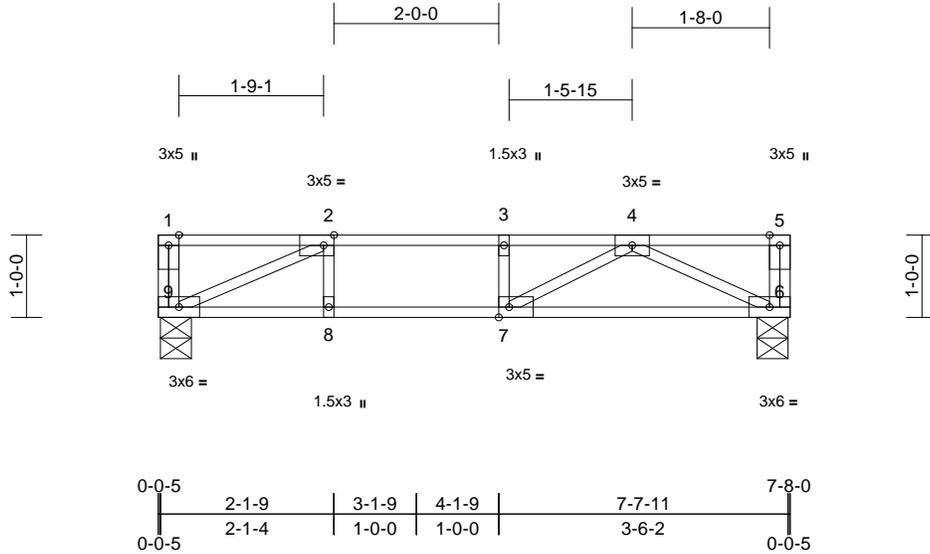
818 Soundside Road  
Edenton, NC 27932

Job 25040195-02	Truss F115	Truss Type Floor	Qty 1	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186508 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
ID: ?\_TH1qR3t\_61louVX7nNzTAT6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:27.8

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.90	Vert(LL)	-0.12	6-7	>723	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.85	Vert(CT)	-0.16	6-7	>543	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.33	Horz(CT)	0.01	6	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 38 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

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

**REACTIONS** (size) 6=0-4-8, 9=0-4-8  
Max Grav 6=623 (LC 1), 9=623 (LC 1)

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

TOP CHORD 1-9=-117/28, 5-6=-111/0, 1-2=0/0,  
2-3=-1224/0, 3-4=-1224/0, 4-5=0/0  
BOT CHORD 8-9=0/1224, 7-8=0/1224, 6-7=0/995  
WEBS 2-8=0/120, 3-7=-186/0, 2-9=-1343/0,  
4-6=-1107/0, 4-7=0/423

**NOTES**

- Unbalanced floor live loads have been considered for this design.
- All bearings are assumed to be SP No.2.
- Recommend 2x6 strongbacks, on edge, spaced at 10'-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)** Standard

- Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00  
Uniform Loads (lb/ft)  
Vert: 6-9=-8, 1-5=-160 (F=-80)



May 5, 2025

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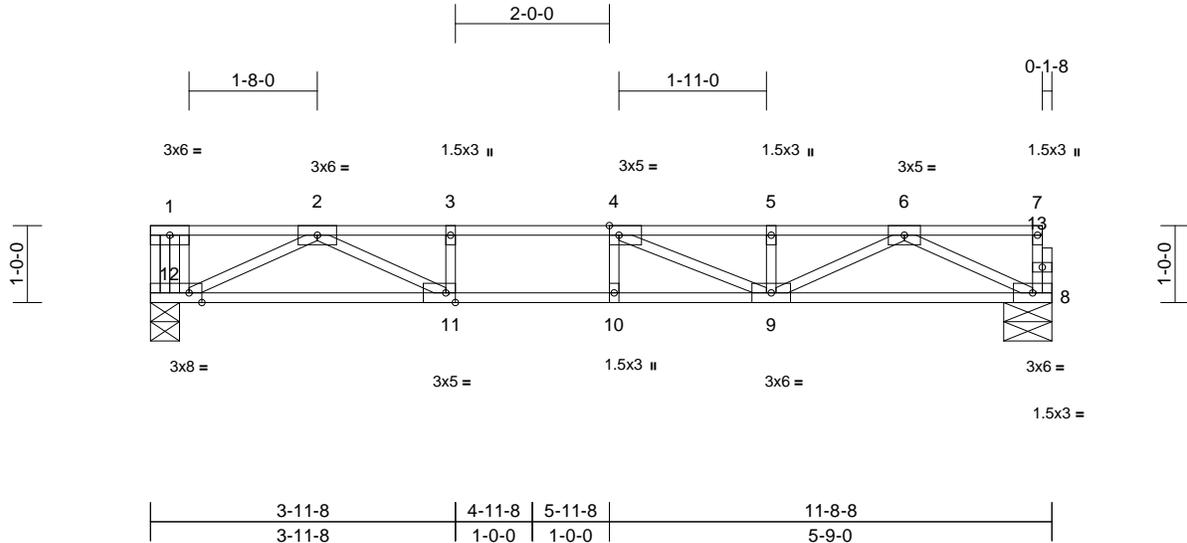
818 Soundside Road  
Edenton, NC 27932

Job 25040195-02	Truss F116	Truss Type Floor	Qty 1	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186509 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
ID:?\_TH1qR3t\_61louVX7nNzTAT6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:29.8

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

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.80	Vert(LL)	-0.19	9-10	>713	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.96	Vert(CT)	-0.25	9-10	>543	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.53	Horz(CT)	0.03	8	n/a	n/a		
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MSH							Weight: 58 lb	FT = 20%F, 11%E

#### LUMBER

TOP CHORD 2x4 SP No.1(flat)  
 BOT CHORD 2x4 SP No.1(flat)  
 WEBS 2x4 SP No.3(flat)  
 OTHERS 2x4 SP No.3(flat)

#### BRACING

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

REACTIONS (size) 8=0-7-8, 12=0-4-8

Max Grav 8=774 (LC 1), 12=782 (LC 1)

FORCES (lb) - Maximum Compression/Maximum  
 Tension

TOP CHORD 1-12=-115/0, 7-8=-97/0, 1-2=0/0,  
 2-3=-2399/0, 3-4=-2399/0, 4-5=-2239/0,  
 5-6=-2239/0, 6-7=-7/0

BOT CHORD 11-12=0/1461, 10-11=0/2399, 9-10=0/2399,  
 8-9=0/1373

WEBS 3-11=-375/0, 4-10=-136/16, 6-8=-1520/0,  
 6-9=0/971, 5-9=-328/0, 4-9=-524/77,  
 2-12=-1606/0, 2-11=0/1106

#### NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All bearings are assumed to be SP No.1 .
- 3) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 4) CAUTION, Do not erect truss backwards.
- 5) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

#### LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00,  
 Plate Increase=1.00  
 Uniform Loads (lb/ft)  
 Vert: 8-12=-8, 1-7=-130 (F=-50)



May 5, 2025

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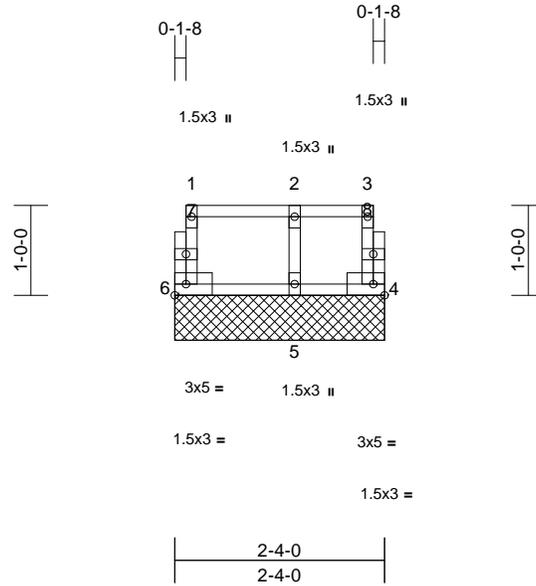
818 Soundside Road  
 Edenton, NC 27932

Job 25040195-02	Truss F117	Truss Type Floor Supported Gable	Qty 1	Ply 1	Install 17 Magnolia Acres-Crawl-Greyson FA 3FL SP 3CG I73186510 Job Reference (optional)
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.73 S Feb 19 2025 Print: 8.730 S Feb 19 2025 MiTek Industries, Inc. Thu May 01 16:20:12  
ID: ?\_TH1qR3t\_61louVX7nNzTAT6-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?#

Page: 1



Scale = 1:25.5

Loading	(psf)	Spacing	1-7-3	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.04	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.02	Vert(TL)	n/a	-	n/a	999	
BCLL	0.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	4	n/a	n/a	
BCDL	5.0	Code	IRC2021/TPI2014	Matrix-MR						Weight: 12 lb	FT = 20%F, 11%E

**LUMBER**

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

**BRACING**

TOP CHORD Structural wood sheathing directly applied or 2-4-0 oc purlins, except end verticals.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS** (size) 4=2-4-0, 5=2-4-0, 6=2-4-0  
Max Grav 4=33 (LC 1), 5=93 (LC 1), 6=48 (LC 1)

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

TOP CHORD 1-6=-44/0, 3-4=-28/0, 1-2=-9/0, 2-3=-9/0  
BOT CHORD 5-6=0/9, 4-5=0/9  
WEBS 2-5=-86/0

**NOTES**

- 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 1-4-0 oc.
- All bearings are assumed to be SP No.2 .
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

**LOAD CASE(S)** Standard



May 5, 2025

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

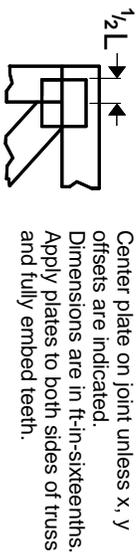
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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/TP1 Quality Criteria and DSB-22** available from Truss Plate Institute ([www.tpinst.org](http://www.tpinst.org)) and **BCSI Building Component Safety Information** available from the Structural Building Component Association ([www.sbcacomponents.com](http://www.sbcacomponents.com))



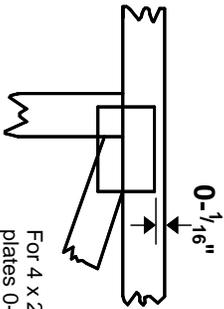
818 Soundside Road  
Edenton, NC 27932

# Symbols

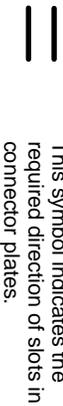
## PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0-  $\frac{1}{16}$ \" from outside edge of truss.



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

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

## PLATE SIZE

4 X 4

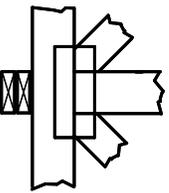
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



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

## BEARING



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

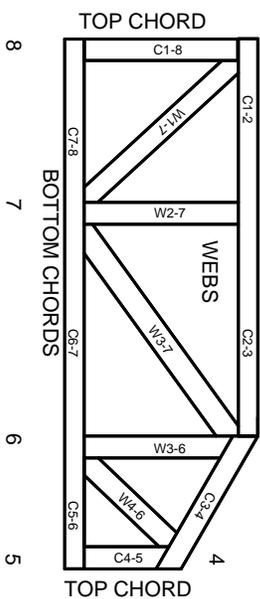
## Industry Standards:

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

# Numbering System



1 TOP CHORDS  
2 JOINT ID TYP.



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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**MITek**

ENGINEERING BY  
**TRENGO**  
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MITek Engineering Reference Sheet: MIL-7473 rev. 1/2/2023

# General Safety Notes

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

1. Additional stability/bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/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.