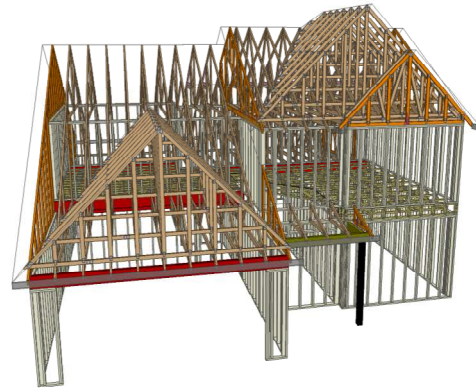




Carter Sanford Component Plant
298 Harvey Faulk Rd
Sanford, NC 27332

Phone #:919-775-1450

Builder: DRB HOMES
Model: 86 FaNC
MIDDLETON 6



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.

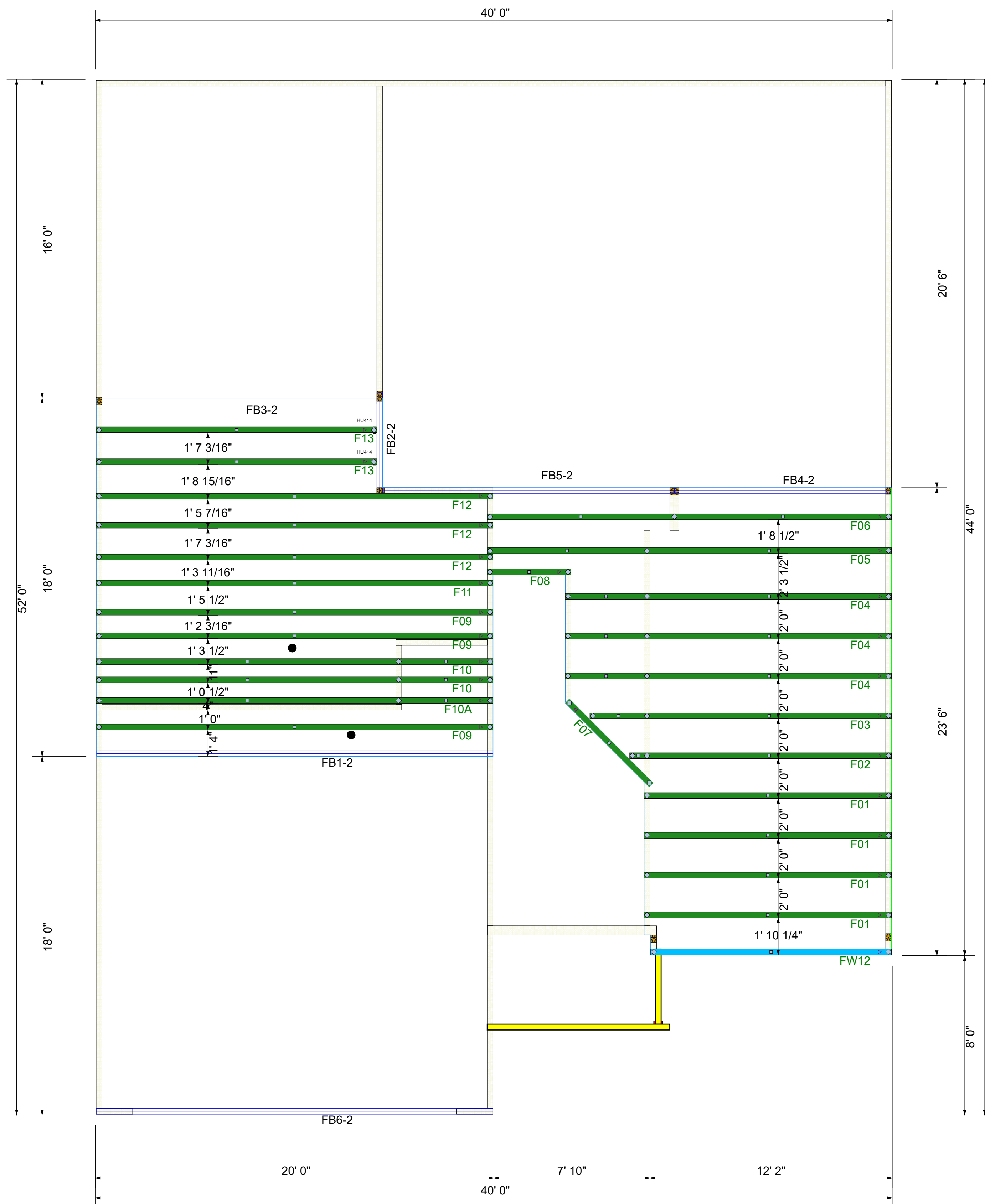
Approved by: _____

Date: _____

General Notes: ** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION. ** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

Fab Type	Net Qty	Plies	Products	Product	Length	PlotID
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 11-7/8	20' 0"	FB6-2	
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 14	16' 0"	FB3-2	
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 14	16' 0"	FB5-2	
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 14	12' 0"	FB4-2	
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 14	6' 0"	FB2-2	
FF	2	2	2.0 RigidLam DF LVL 1-3/4 x 18	20' 0"	FB1-2	

Truss Connector Total List			Connector Summary		
Qty	Product	Manuf	Product	Manuf	Qty
2	HU414	Simpson	HU416	Simpson	1



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

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

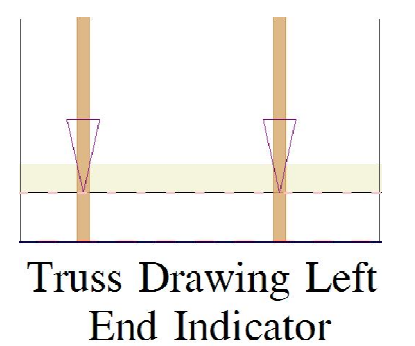


DRB HOMES
86 FARM AT NEILLS CREEK
MIDDLETON 6
COMPONENT PLAN
PLACEMENT PLAN

Scale: NTS
Date: 1/17/2024
Designer: ND
Project Number: 23120149
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. ** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS. ** DAMAGED COMPONENTS SHOULD NOT BE INSTALLED UNLESS TOLD TO BY THE COMPONENT PLANT. ** TRIANGULAR SYMBOL NEAR END OF TRUSS INDICATES LEFT END OF TRUSS AS SHOWN ON INDIVIDUAL TRUSS DRAWINGS. ** PLUMBING DROPS NOTED ARE IN THE APPROXIMATE LOCATIONS PER PLAN. BUILDER TO VERIFY LOCATIONS BEFORE SETTING TRUSSES. ** REFER TO FINAL TRUSS ENGINEERING SHEETS FOR PLY TO PLY CONNECTIONS.

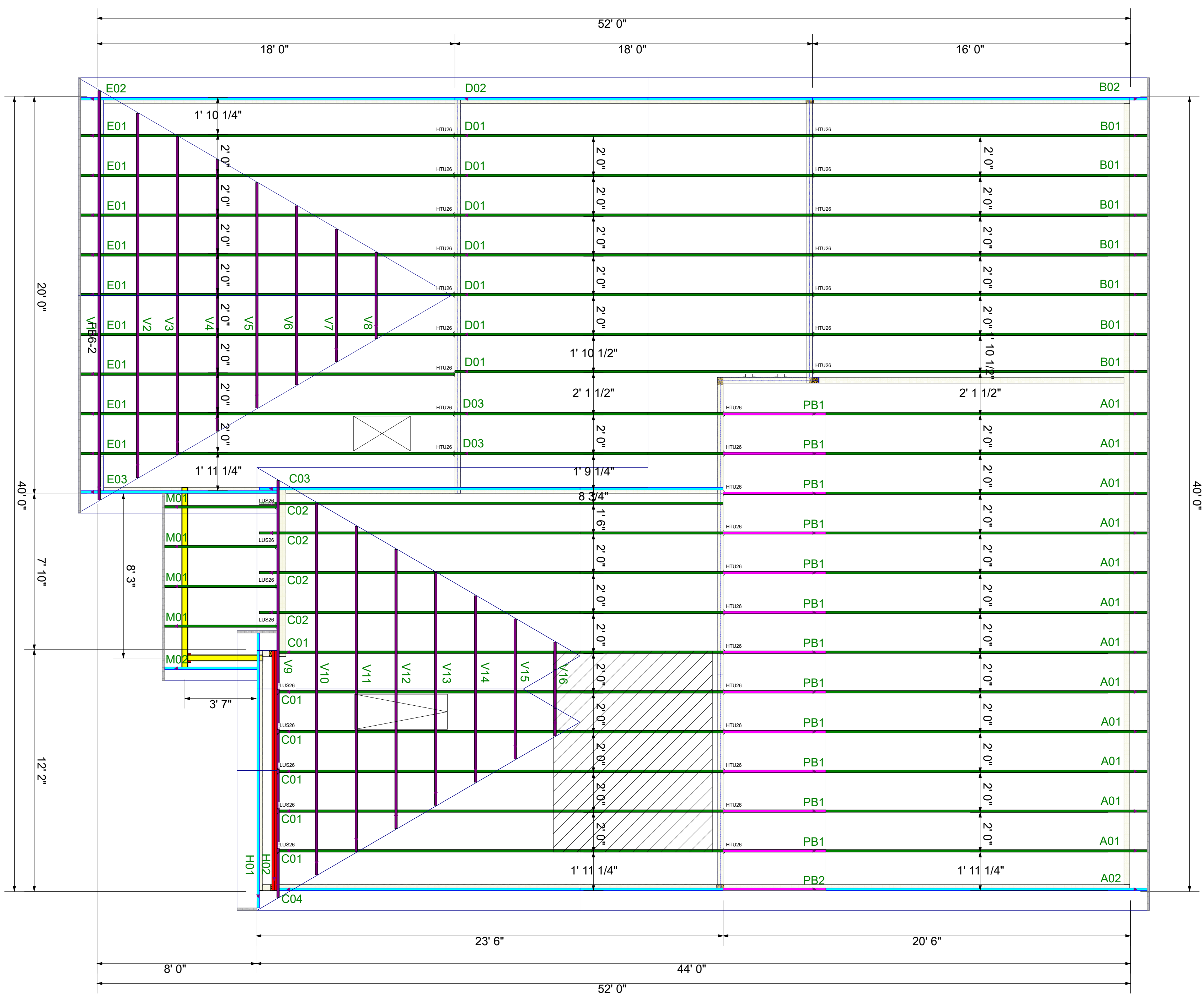


Truss Drawing Left End Indicator

** CUTTING OR DRILLING OF COMPONENTS SHOULD NOT BE DONE WITHOUT CONTACTING COMPONENT SUPPLIER FIRST. CUSTOMER TAKES FULL RESPONSIBILITY FOR COMPONENTS IF CUT BEFORE AUTHORIZATION.

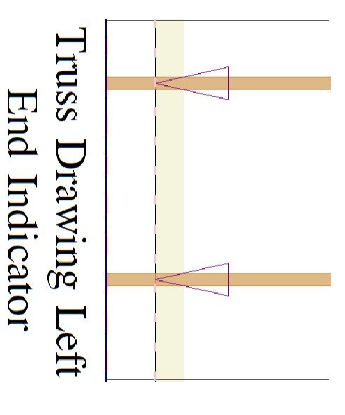
** ALL BEARING POINTS MUST BE INSTALLED PRIOR TO SETTING ANY COMPONENTS.

Truss Connector Total List			
Qty	Product	Manuf	
28	HTL26	Simpson	
10	LUS26	Simpson	



** FRAMER MUST REFER TO PLANS WHILE SETTING COMPONENTS.

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



** 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.

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

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

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

Scale:	NTS
Date:	1/17/2024
Designer:	ND
Project Number:	23120149
Sheet Number:	1/1

DRB HOMES
86 FARM AT NEILLS CREEK
MIDDLETON 6
**COMPONENT
PLACEMENT PLAN**



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

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

Trenco

818 Soundside Rd
Edenton, NC 27932

Re: 23120149
DRB GROUP - 86 FaNC

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: I63106364 thru I63106414

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

North Carolina COA: C-0844



January 19, 2024

Gilbert, Eric

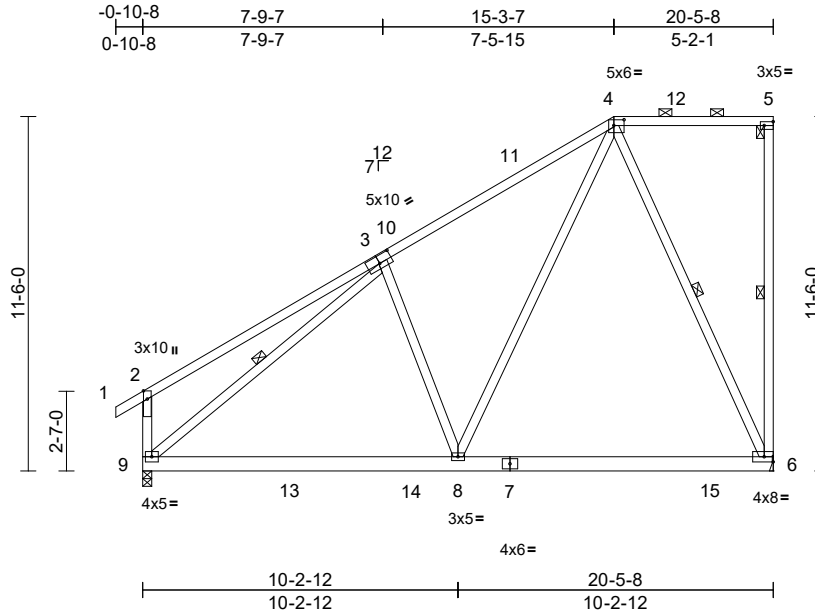
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	DRB GROUP - 86 FaNC	I63106364
23120149	A01	Piggyback Base	12	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:74.8

Plate Offsets (X, Y): [3:0-5-0,0-3-0], [4:0-4-0,0-2-4], [5:Edge,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	0.92	Vert(LL)	-0.14	6-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.22	6-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.01	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 162 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-4:2x4 SP No.1
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2 *Except* 9-2,9-3,8-3:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 4-5.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-6, 4-6, 3-9

REACTIONS

(size) 6= Mechanical, 9=0-3-8
 Max Horiz 9=404 (LC 11)
 Max Uplift 6=-148 (LC 11), 9=-85 (LC 14)
 Max Grav 6=976 (LC 40), 9=1074 (LC 40)

FORCES

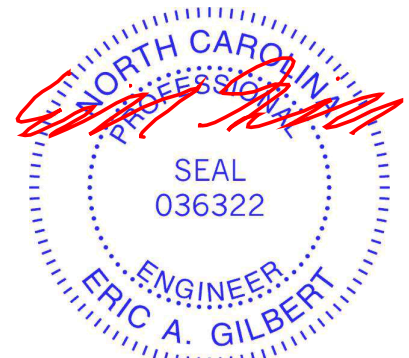
(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/31, 2-4=-986/227, 4-5=-141/187, 5-6=-215/87, 2-9=-359/161
 BOT CHORD 8-9=-207/950, 6-8=-150/406
 WEBS 4-6=-885/158, 3-9=-1008/51, 3-8=-395/289, 4-8=-151/971

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-3-7, Exterior(2R) 12-3-7 to 17-3-12, Exterior (2E) 17-3-12 to 20-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 148 lb uplift at joint 6.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 9. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 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



January 19, 2024

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.sbccomponents.com)



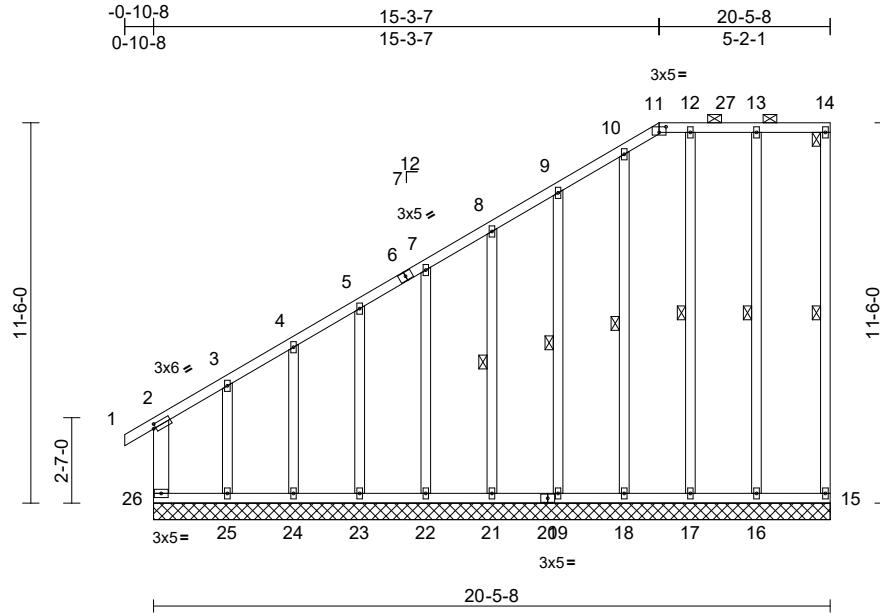
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss A02	Truss Type Piggyback Base Supported Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106365
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:69.7

Plate Offsets (X, Y): [2:0-0-14,0-1-8], [11:0-2-8,0-2-1]

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 191 lb	FT = 20%

LUMBER		
TOP CHORD	2x4 SP No.2	
BOT CHORD	2x4 SP No.2	
WEBS	2x6 SP No.2 *Except* 14-15:2x4 SP No.2	
OTHERS	2x4 SP No.3 *Except* 18-10,17-12,16-13:2x4 SP No.2	

BOT CHORD	WEBS
25-26=-3/2, 24-25=-3/2, 23-24=-3/2, 22-23=-3/2, 21-22=-3/2, 19-21=-3/2, 18-19=-3/2, 17-18=-3/2, 16-17=-3/2, 15-16=-3/2	8-21=-178/72, 7-22=-162/69, 5-23=-128/88, 4-24=-119/0, 3-25=-306/400, 9-19=-177/73, 10-18=-166/66, 12-17=-160/47, 13-16=-199/57

- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * 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 2-0-00 wide will fit between the bottom chord and any other members.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 199 lb uplift at joint 26, 24 lb uplift at joint 15, 50 lb uplift at joint 21, 41 lb uplift at joint 22, 83 lb uplift at joint 23, 634 lb uplift at joint 25, 50 lb uplift at joint 19, 42 lb uplift at joint 18, 26 lb uplift at joint 17 and 31 lb uplift at joint 16.
- 15) 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.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

BRACING		
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 11-14.	
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.	
WEBS	1 Row at midpt	14-15, 8-21, 9-19, 10-18, 12-17, 13-16

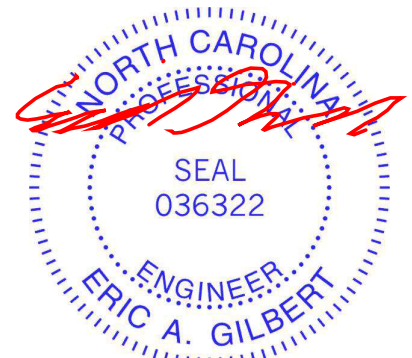
NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-2-12, Interior (1) 2-2-12 to 12-2-12, Exterior(2R) 12-2-12 to 17-3-12, Exterior(2E) 17-3-12 to 20-3-12 zone; cantilever left exposed; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 7) Provide adequate drainage to prevent water ponding.
- 8) All plates are 2x4 MT20 unless otherwise indicated.
- 9) Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).

REACTIONS	(size)	
Max Horiz	15=20-5-8, 16=20-5-8, 17=20-5-8, 18=20-5-8, 19=20-5-8, 21=20-5-8, 22=20-5-8, 23=20-5-8, 24=20-5-8, 25=20-5-8, 26=20-5-8	26=303 (LC 14)
Max Uplift	15=24 (LC 11), 16=31 (LC 10), 17=26 (LC 11), 18=42 (LC 14), 19=50 (LC 14), 21=50 (LC 14), 22=41 (LC 14), 23=83 (LC 14), 25=634 (LC 14), 26=199 (LC 12)	
Max Grav	15=94 (LC 35), 16=242 (LC 35), 17=197 (LC 35), 18=205 (LC 36), 19=216 (LC 36), 21=217 (LC 36), 22=201 (LC 36), 23=173 (LC 40), 24=159 (LC 26), 25=387 (LC 12), 26=604 (LC 14)	

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-26=-389/222, 1-2=0/32, 2-3=-475/279, 3-4=-261/143, 4-5=-250/143, 5-7=-196/112, 7-8=-149/87, 8-9=-101/61, 9-10=-61/47, 10-11=-41/3, 11-12=-2/3, 12-13=-2/3, 13-14=-2/3, 14-15=-77/27

LOAD CASE(S) Standard



January 19,2024

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

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



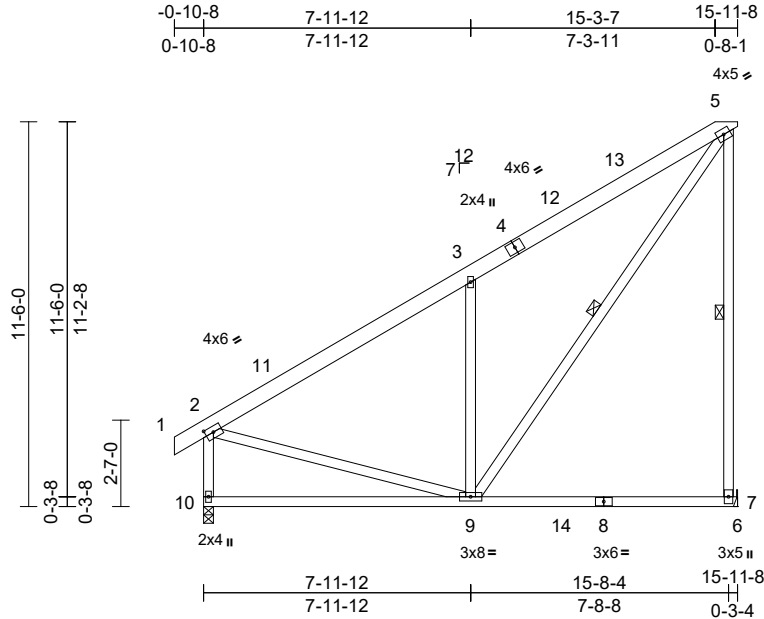
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss B01	Truss Type Monopitch	Qty 7	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	I63106366
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:04
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Page: 1



Scale = 1:68.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.50	Vert(LL)	-0.18	7-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.26	7-9	>714	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 129 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x4 SP No.2
 WEBS 2x4 SP No.3 *Except* 5-7,9-5:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 9-10-6 oc bracing.
 WEBS 1 Row at midpt 5-7, 5-9

REACTIONS

(size) 7= Mechanical, 10=0-3-8
 Max Horiz 10=323 (LC 14)
 Max Uplift 7=-240 (LC 14)
 Max Grav 7=851 (LC 24), 10=766 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/31, 2-3=-668/0, 3-5=-745/159,
 5-7=-713/280, 2-10=-653/12
 BOT CHORD 9-10=-345/220, 7-9=0/11, 6-7=0/0
 WEBS 3-9=-628/346, 5-9=-338/979, 2-9=0/460

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
 Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-8-4, Exterior(2E) 12-8-4 to 15-8-4 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 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 1.00 times flat roof load of 20.0 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, with BCDL = 10.0psf.
- 7) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 240 lb uplift at joint 7.
- 9) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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

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



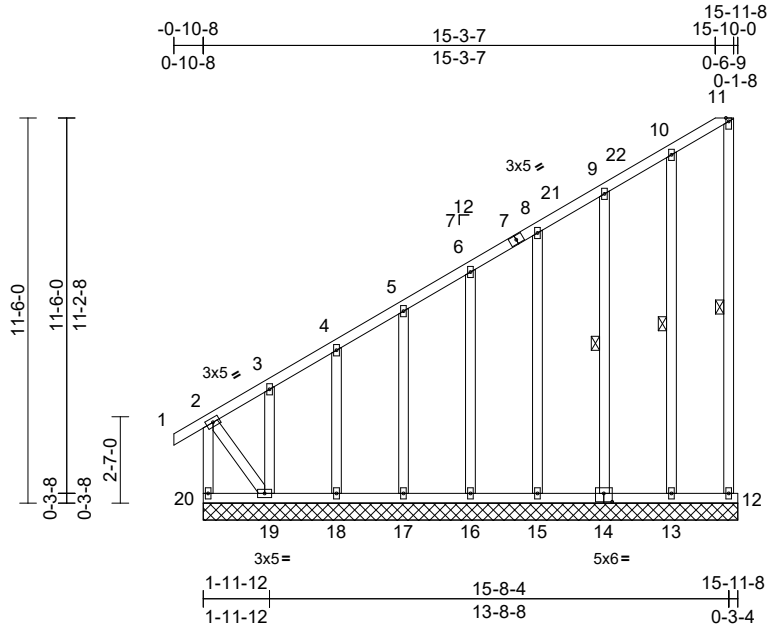
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss B02	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	I63106367
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:04
ID:2VuldpuPTJAcxqRvYVSG2yEN?u-RfC?PsB70Hq3NSgPqnL9w3ulTXbGKwRcDoi7J4zJC?f

Page: 1



Scale = 1:68.8

Plate Offsets (X, Y): [14:0-3-0,0-3-0]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 146 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2 *Except* 2-19:2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* 13-10:2x4 SP No.2

BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
	10-0-0 oc bracing: 13-14,12-13.
WEBS	1 Row at midpt 11-12, 9-14, 10-13

REACTIONS	(size)
	12=15-11-8, 13=15-11-8,
	14=15-11-8, 15=15-11-8,
	16=15-11-8, 17=15-11-8,
	18=15-11-8, 19=15-11-8,
	20=15-11-8
Max Horiz	20=322 (LC 14)
Max Uplift	12=-19 (LC 14), 13=-48 (LC 14),
	14=-51 (LC 14), 15=-50 (LC 14),
	16=-50 (LC 14), 17=-50 (LC 14),
	18=-53 (LC 14), 19=-473 (LC 14),
	20=-187 (LC 12)
Max Grav	12=81 (LC 21), 13=238 (LC 21),
	14=235 (LC 21), 15=173 (LC 21),
	16=167 (LC 24), 17=166 (LC 24),
	18=169 (LC 24), 19=309 (LC 12),
	20=577 (LC 14)

FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	2-20=-655/346, 1-2=0/31, 2-3=-448/215,
	3-4=-393/189, 4-5=-333/160, 5-6=-275/132,
	6-8=-217/104, 8-9=-159/76, 9-10=-98/49,
	10-11=-51/25, 11-12=-68/40
BOT CHORD	19-20=-414/220, 18-19=0/0, 17-18=0/0,
	16-17=0/0, 15-16=0/0, 13-15=0/0, 12-13=0/0

WEBS	
	6-16=-127/92, 5-17=-126/90, 4-18=-131/96,
	3-19=-110/86, 8-15=-133/90, 9-14=-196/97,
	10-13=-198/111, 2-19=-358/673

- NOTES**
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TC DL=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 1-11-12, Exterior (2N) 1-11-12 to 12-8-4, Corner(3E) 12-8-4 to 15-8-4 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - 4) Unbalanced snow loads have been considered for this design.
 - 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - 6) All plates are 2x4 MT20 unless otherwise indicated.
 - 7) Gable requires continuous bottom chord bearing.
 - 8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 9) Gable studs spaced at 2-0-0 oc.
 - 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 11) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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

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



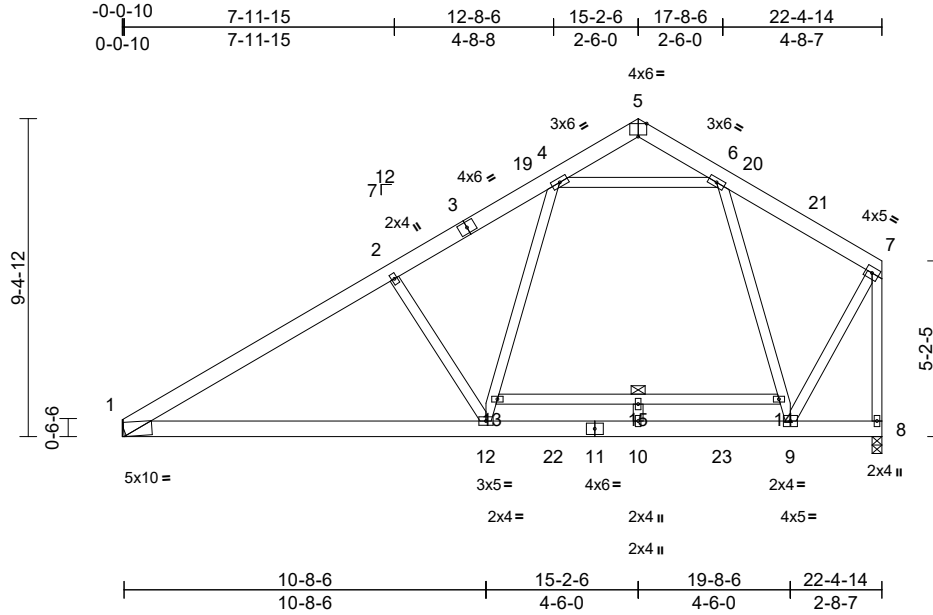
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss C01	Truss Type Common	Qty 6	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106368
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:05
ID:ecZulQRhcRtdtdrTWhtmsqdyEMuk-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC7f

Page: 1



Scale = 1:68.1

Plate Offsets (X, Y): [5:0-3-0,Edge]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.96	Vert(LL)	-0.25	12-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.44	12-18	>602	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 178 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 8-9.
WEBS 1 Row at midpt 13-14

REACTIONS

(size) 1= Mechanical, 8=0-3-8
Max Horiz 1=268 (LC 13)
Max Uplift 1=-30 (LC 14)
Max Grav 1=1006 (LC 21), 8=1032 (LC 22)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1469/23, 2-4=-1262/49, 4-5=-50/94, 5-6=-356/62, 6-7=-570/55, 7-8=-1224/0
BOT CHORD 1-12=-77/1238, 10-12=0/681, 9-10=0/681, 8-9=-64/88
WEBS 2-12=-667/255, 12-13=0/788, 4-13=0/794, 6-14=-489/115, 9-14=-492/105, 7-9=0/1187, 4-6=-554/89, 13-15=-16/0, 14-15=-16/0, 10-15=0/18

NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-10 to 3-0-10, Interior (1) 3-0-10 to 12-3-1, Exterior(2R) 12-3-1 to 18-3-1, Interior (1) 18-3-1 to 19-3-12, Exterior(2E) 19-3-12 to 22-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 4) Unbalanced snow loads have been considered for this design.
- 5) 200.0lb AC unit load placed on the bottom chord, 15-3-0 from left end, supported at two points, 5-0-0 apart.
- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 8) Refer to girder(s) for truss to truss connections.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 1.
- 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.

LOAD CASE(S) Standard



January 19, 2024

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

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



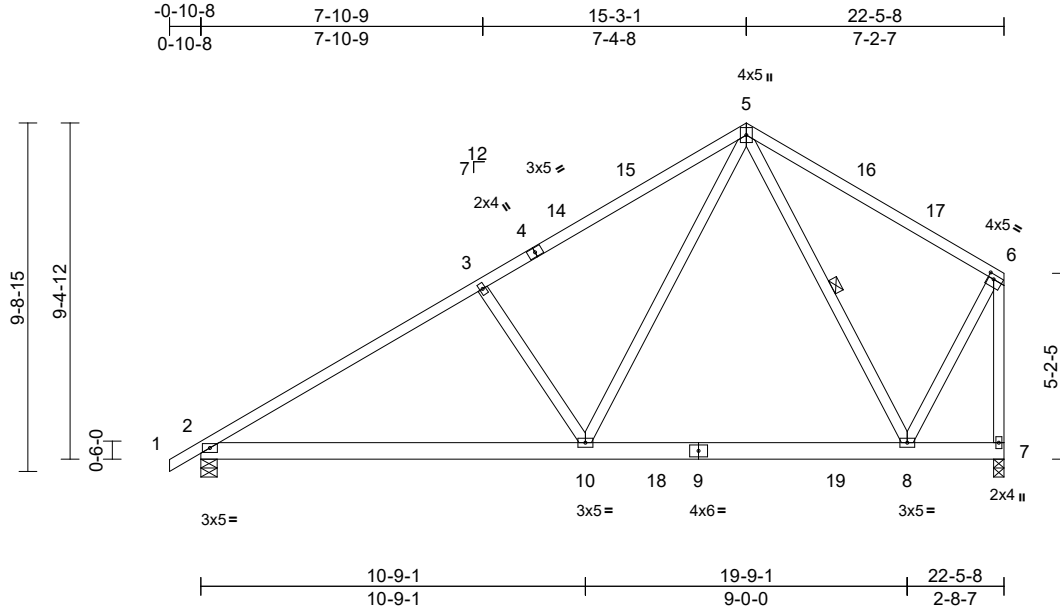
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss C02	Truss Type Common	Qty 4	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	I63106369
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:05
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Page: 1



Scale = 1:64.4

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.10	10-13	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.22	10-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 144 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 1-4:2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 5-8

REACTIONS

(size) 2=0-5-8, 7=0-3-8
 Max Horiz 2=270 (LC 13)
 Max Uplift 2=-107 (LC 14), 7=-75 (LC 14)
 Max Grav 2=1048 (LC 24), 7=1004 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/26, 2-3=-1399/159, 3-5=-1206/194, 5-6=-525/166, 6-7=-1018/79
 BOT CHORD 2-10=-185/1249, 8-10=-34/602, 7-8=-65/89
 WEBS 3-10=-484/251, 5-10=-115/917, 5-8=-476/88, 6-8=0/771

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-3-1, Exterior(2R) 12-3-1 to 18-3-1, Interior (1) 18-3-1 to 19-3-12, Exterior(2E) 19-3-12 to 22-3-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

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

LOAD CASE(S) Standard



January 19, 2024

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

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



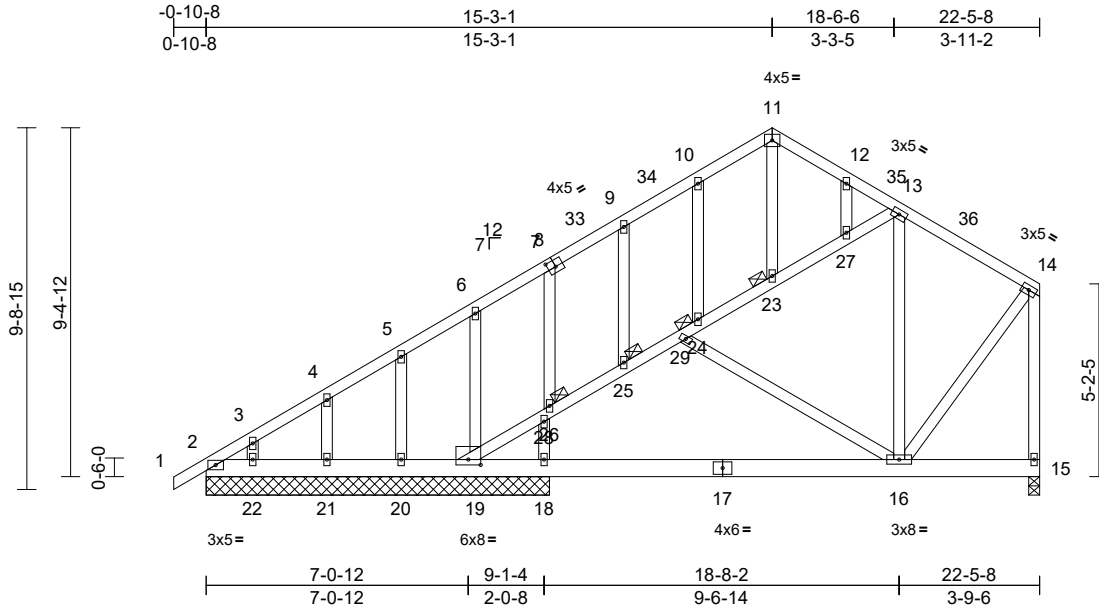
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss C03	Truss Type Common Structural Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106370
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:62.1

Plate Offsets (X, Y): [8:0-2-8,0-2-4], [19:0-4-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	-0.06	16-18	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.13	16-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.33	Horz(CT)	0.01	15	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 188 lb	FT = 20%

LUMBER	TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2	
WEBS	2x4 SP No.3 *Except* 13-19:2x4 SP No.2	
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.	
JOINTS	1 Brace at Jt(s): 23, 24, 25, 26	
REACTIONS	(size)	2=9-3-0, 15=0-3-8, 19=9-3-0, 20=9-3-0, 21=9-3-0, 22=9-3-0, 30=9-3-0
Max Horiz	2=278 (LC 13), 30=278 (LC 13)	
Max Uplift	2=-17 (LC 10), 15=-43 (LC 15), 19=-159 (LC 14), 20=-120 (LC 7), 21=-51 (LC 14), 22=-60 (LC 14), 30=-17 (LC 10)	
Max Grav	2=202 (LC 26), 15=702 (LC 22), 19=860 (LC 21), 20=-36 (LC 11), 21=230 (LC 24), 22=112 (LC 24), 30=202 (LC 26)	
FORCES	(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=0/26, 2-3=-279/110, 3-4=-252/100, 4-5=-230/74, 5-6=-189/76, 6-7=-204/34, 7-9=-177/47, 9-10=-171/58, 10-11=-195/103, 11-12=-196/101, 12-13=-251/74, 13-14=-418/109, 14-15=-704/34	
BOT CHORD	2-22=-131/205, 21-22=-131/205, 20-21=-131/205, 19-20=-131/205, 18-19=-48/573, 16-18=-48/573, 15-16=-63/93	

WEBS	11-23=-38/24, 10-24=-269/85, 9-25=-146/45, 7-26=-79/104, 6-19=-211/61, 5-20=-84/77, 4-21=-141/76, 3-22=-101/65, 12-27=-51/28, 19-28=-584/151, 26-28=-587/198, 25-26=-547/154, 25-29=-473/139, 24-29=-296/109, 23-24=-234/76, 23-27=-242/95, 13-27=-227/81, 14-16=0/525, 13-16=-169/148, 18-28=-16/158, 16-29=-371/94
9)	This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10)	* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
11)	N/A

- NOTES**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-10-8 to 2-1-8, Interior (1) 2-1-8 to 12-3-1, Exterior(2R) 12-3-1 to 18-3-1, Interior (1) 18-3-1 to 19-3-12, Exterior(2E) 19-3-12 to 22-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.

12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard



January 19, 2024

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.sbccomponents.com)

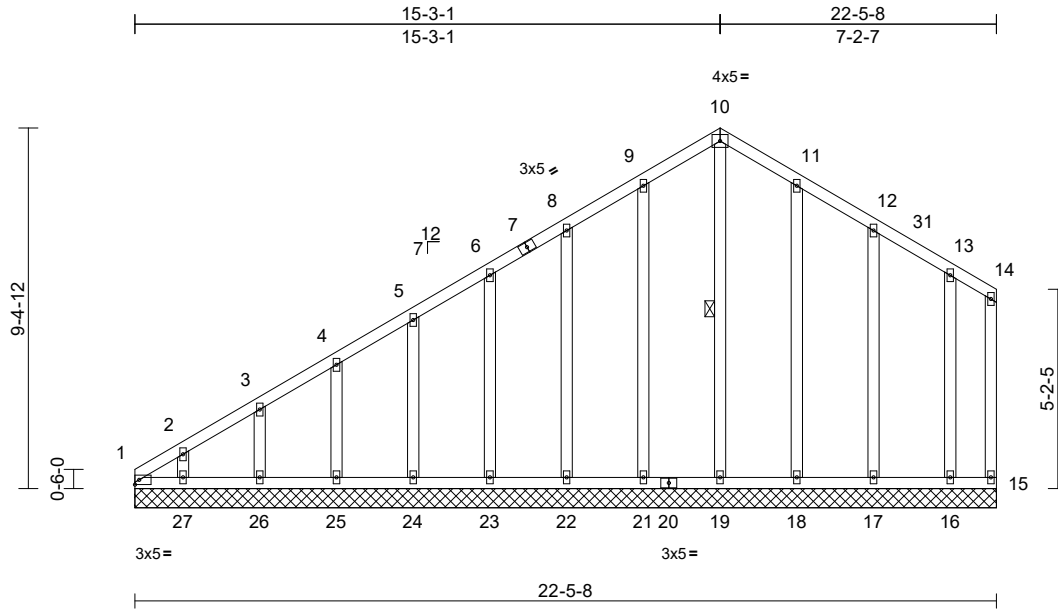


Job 23120149	Truss C04	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106371
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:06
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Page: 1



Scale = 1:60.1

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.00	15	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 165 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.
WEBS	1 Row at midpt 10-19

REACTIONS	(size)
Max Horiz	1=264 (LC 13), 28=264 (LC 13)
Max Uplift	1=-110 (LC 12), 15=-22 (LC 14), 16=-37 (LC 15), 17=-55 (LC 15), 18=-46 (LC 15), 19=-46 (LC 13), 21=-46 (LC 14), 22=-51 (LC 14), 23=-48 (LC 14), 24=-49 (LC 14), 25=-50 (LC 14), 26=-45 (LC 14), 27=-82 (LC 14), 28=-110 (LC 12)
Max Grav	1=169 (LC 11), 15=45 (LC 24), 16=145 (LC 24), 17=225 (LC 21), 18=243 (LC 21), 19=180 (LC 23), 21=244 (LC 20), 22=221 (LC 20), 23=163 (LC 20), 24=161 (LC 23), 25=161 (LC 23), 26=161 (LC 23), 27=172 (LC 23), 28=169 (LC 11)

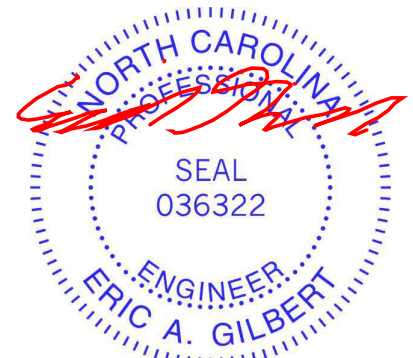
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-264/214, 2-3=-235/193, 3-4=-215/176, 4-5=-201/170, 5-6=-187/167, 6-8=-174/193, 8-9=-162/243, 9-10=-143/285, 10-11=-132/285, 11-12=-116/244, 12-13=-96/188, 13-14=-88/164, 14-15=-72/126

BOT CHORD	WEBS
1-27=-136/148, 26-27=-63/113, 25-26=-63/113, 24-25=-63/113, 23-24=-63/113, 22-23=-63/113, 21-22=-63/113, 19-21=-63/113, 18-19=-63/113, 17-18=-63/113, 16-17=-63/113, 15-16=-63/113	10-19=-225/85, 9-21=-205/70, 8-22=-182/77, 6-23=-124/72, 5-24=-123/72, 4-25=-122/72, 3-26=-124/80, 2-27=-119/80, 11-18=-205/70, 12-17=-184/88, 13-16=-113/74

- 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) 0-0-0 to 3-3-1, Exterior(2N) 3-3-1 to 12-3-1, Corner(3R) 12-3-1 to 18-3-1, Exterior (2N) 18-3-1 to 19-3-1, Corner(3E) 19-3-1 to 22-3-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 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.
- N/A

- 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



January 19, 2024

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818 Soundside Road
Edenton, NC 27932

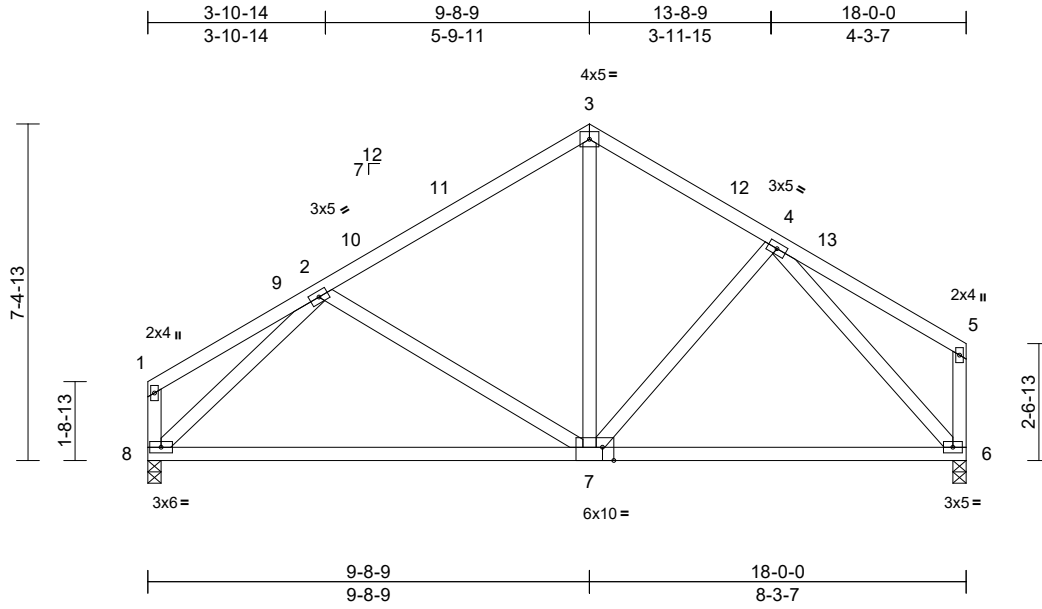
Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 86 FaNC	163106372
23120149	D01	Common	7	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:06

Page: 1

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Scale = 1:50.7

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.19	7-8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.38	7-8	>557	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.02	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											

Weight: 108 lb FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 6=0-3-8, 8=0-3-8
 Max Horiz 8=193 (LC 11)
 Max Uplift 6=-56 (LC 15), 8=-63 (LC 14)
 Max Grav 6=765 (LC 21), 8=769 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=-136/30, 2-3=-715/124, 3-4=-656/135,
 4-5=-121/96, 5-6=-145/72, 1-8=-114/16
 BOT CHORD 6-8=-125/665
 WEBS 2-7=-198/175, 3-7=-13/348, 4-7=-92/134,
 4-6=-768/56, 2-8=-868/166

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
 Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-1-7 to 5-1-7, Interior (1) 5-1-7 to 8-8-5, Exterior(2R) 8-8-5 to 14-8-5, Interior (1) 14-8-5 to 16-9-15, Exterior(2E) 16-9-15 to 19-9-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10

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

LOAD CASE(S) Standard



January 19, 2024

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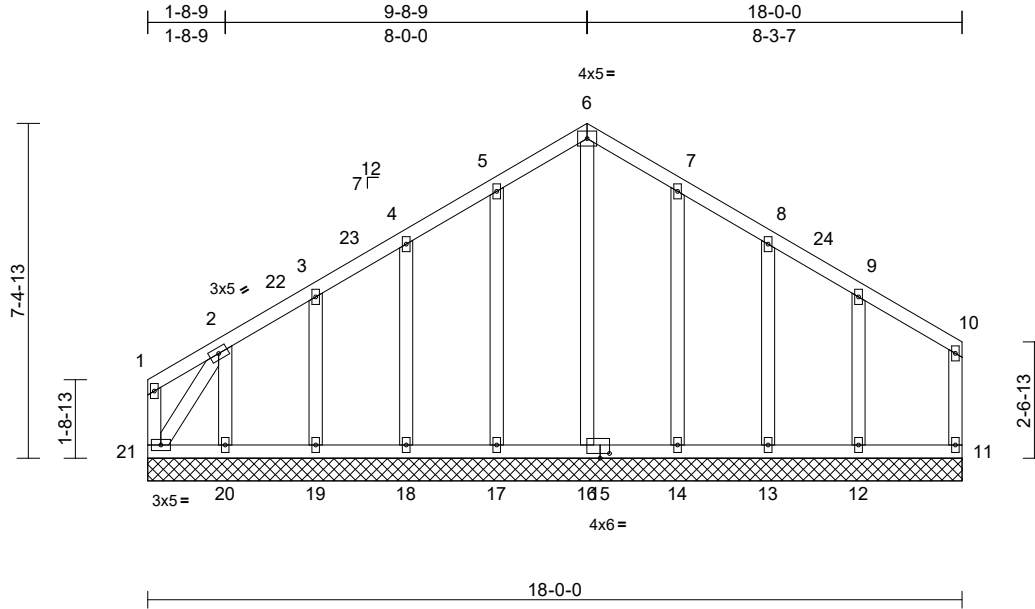
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss D02	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106373
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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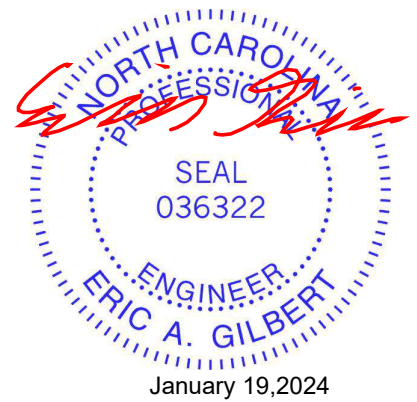
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Plate Offsets (X, Y): [15:0-2-8-0-1-4]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.00	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 121 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)	11=18-0-0, 12=18-0-0, 13=18-0-0, 14=18-0-0, 16=18-0-0, 17=18-0-0, 18=18-0-0, 19=18-0-0, 20=18-0-0, 21=18-0-0
Max Horiz	21=193 (LC 11)
Max Uplift	11=-15 (LC 14), 12=-63 (LC 15), 13=-49 (LC 15), 14=-49 (LC 15), 16=-21 (LC 13), 17=-50 (LC 14), 18=-51 (LC 14), 19=-51 (LC 14), 20=-160 (LC 11), 21=-197 (LC 10)
Max Grav	11=87 (LC 24), 12=194 (LC 24), 13=221 (LC 21), 14=254 (LC 21), 16=174 (LC 23), 17=253 (LC 20), 18=226 (LC 20), 19=169 (LC 23), 20=266 (LC 23), 21=251 (LC 13)
FORCES	
(lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-41/31, 2-3=-164/154, 3-4=-149/166, 4-5=-137/223, 5-6=-118/274, 6-7=-107/274, 7-8=-89/223, 8-9=-75/166, 9-10=-57/96, 10-11=-73/79, 1-21=-45/22
BOT CHORD	20-21=-32/58, 19-20=-32/58, 18-19=-32/58, 17-18=-32/58, 16-17=-32/58, 14-16=-32/58, 13-14=-32/58, 12-13=-32/58, 11-12=-32/58
WEBS	6-16=-207/61, 5-17=-213/78, 4-18=-186/88, 3-19=-130/89, 2-20=-222/176, 7-14=-213/78, 8-13=-183/88, 9-12=-143/115, 2-21=-279/260

- 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) 2-1-7 to 5-1-7, Exterior(2N) 5-1-7 to 8-8-5, Corner(3R) 8-8-5 to 14-8-5, Exterior(2N) 14-8-5 to 16-9-15, Corner(3E) 16-9-15 to 19-9-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - 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.

- 12) N/A
- 13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard

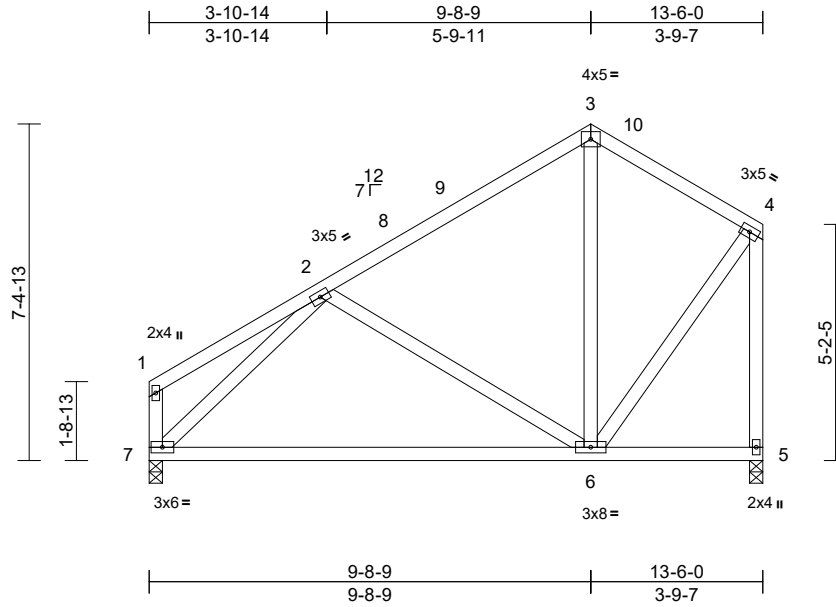


Job 23120149	Truss D03	Truss Type Common	Qty 2	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106374
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:50.7

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	0.61	Vert(LL)	-0.21	6-7	>752	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.42	6-7	>374	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 89 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 5=0-3-8, 7=0-3-8
Max Horiz 7=225 (LC 11)
Max Uplift 5=-63 (LC 14), 7=-47 (LC 14)
Max Grav 5=552 (LC 21), 7=575 (LC 20)

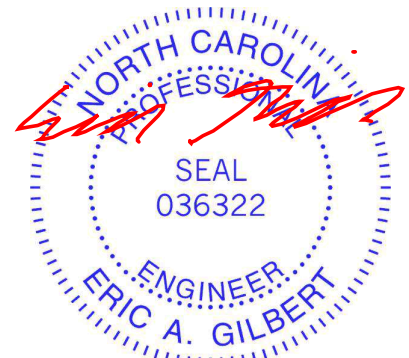
FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-142/22, 2-3=-419/123, 3-4=-320/140, 4-5=-555/77, 1-7=-114/14
BOT CHORD 6-7=-138/468, 5-6=-63/90
WEBS 2-6=-246/180, 3-6=-45/126, 4-6=-12/431, 2-7=-577/183

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 2-1-7 to 5-1-7, Interior (1) 5-1-7 to 8-8-5, Exterior(2R) 8-8-5 to 12-3-15, Exterior (2E) 12-3-15 to 15-3-15 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 5 and 7. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



January 19, 2024

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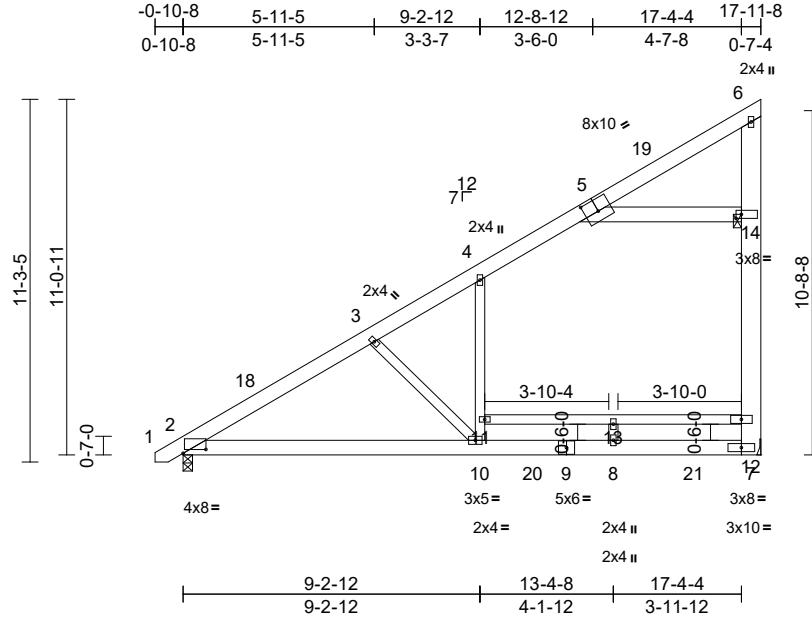
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss E01	Truss Type Monopitch	Qty 9	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106375
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:07
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Page: 1



Scale = 1:71.6

Plate Offsets (X, Y): [2:0-8-8,0-1-7], [5:0-5-0,0-4-8], [14:0-2-0,0-1-8]

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	0.60	Vert(LL)	0.40	10-17	>529	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.84	8-10	>253	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.96	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 163 lb	FT = 20%

LUMBER

TOP CHORD 2x6 SP No.2 *Except* 1-5:2x6 SP 2400F 2.0E
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except* 5-14:2x6 SP No.2, 6-7:2x8 SP 2400F 2.0E

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.
 JOINTS 1 Brace at Jt(s): 14

REACTIONS

(size) 2=0-3-8, 7= Mechanical
 Max Horiz 2=390 (LC 14)
 Max Uplift 7=-72 (LC 14)
 Max Grav 2=821 (LC 21), 7=1018 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-2=0/20, 2-3=-1111/0, 3-4=-748/0, 4-6=-280/1076
 BOT CHORD 2-10=-189/960, 8-10=-34/304, 7-8=-34/304
 WEBS 3-10=-868/185, 10-11=0/793, 4-11=0/829, 11-13=-29/76, 12-13=-29/76, 8-13=0/70, 5-14=-1241/201, 7-12=-823/184, 12-14=-789/193, 6-14=-713/181

NOTES

1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
 Vasd=103mph; TCDL=6.0psf; BCCL=6.0psf; h=25ft;
 Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) -0-8-1 to 2-3-15, Interior (1) 2-3-15 to 14-7-14, Exterior(2E) 14-7-14 to 17-7-14 zone; cantilever left exposed; end vertical left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 200.0lb AC unit load placed on the bottom chord, 13-4-8 from left end, supported at two points, 5-0-0 apart.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 7.
- 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



January 19, 2024

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

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



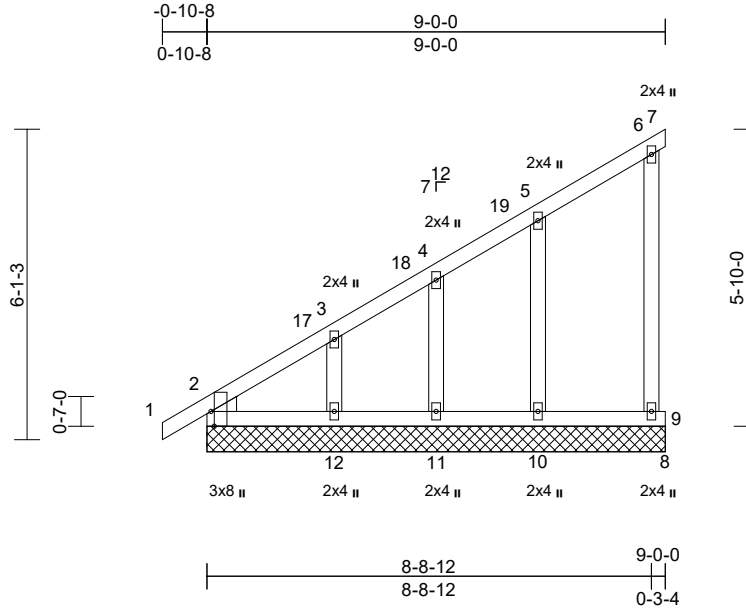
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss E03	Truss Type Monopitch Supported Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106377
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:08
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Page: 1



Scale = 1:45.3

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 51 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
 WEDGE Left: 2x4 SP No.3

BRACING

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

REACTIONS

(size) 2=9-0-0, 9=9-0-0, 10=9-0-0, 11=9-0-0, 12=9-0-0, 13=9-0-0
 Max Horiz 2=200 (LC 13), 13=200 (LC 13)
 Max Uplift 2=-17 (LC 10), 9=-27 (LC 11), 10=-61 (LC 14), 11=-37 (LC 14), 12=-88 (LC 14), 13=-17 (LC 10)
 Max Grav 2=168 (LC 29), 9=146 (LC 21), 10=280 (LC 21), 11=194 (LC 21), 12=219 (LC 28), 13=168 (LC 29)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/26, 2-3=-160/263, 3-4=-128/206, 4-5=-117/183, 5-6=-92/119, 6-7=-13/0, 6-9=-120/33
 BOT CHORD 2-12=-95/182, 11-12=-68/122, 10-11=-68/122, 9-10=-68/122, 8-9=0/0
 WEBS 4-11=-162/118, 3-12=-154/154, 5-10=-233/126

NOTES

- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner(3E) -0-10-8 to 2-1-8, Exterior(2N) 2-1-8 to 6-0-0, Corner(3E) 6-0-0 to 9-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof live load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- 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.
- N/A

13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard

12) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 13.



January 19,2024

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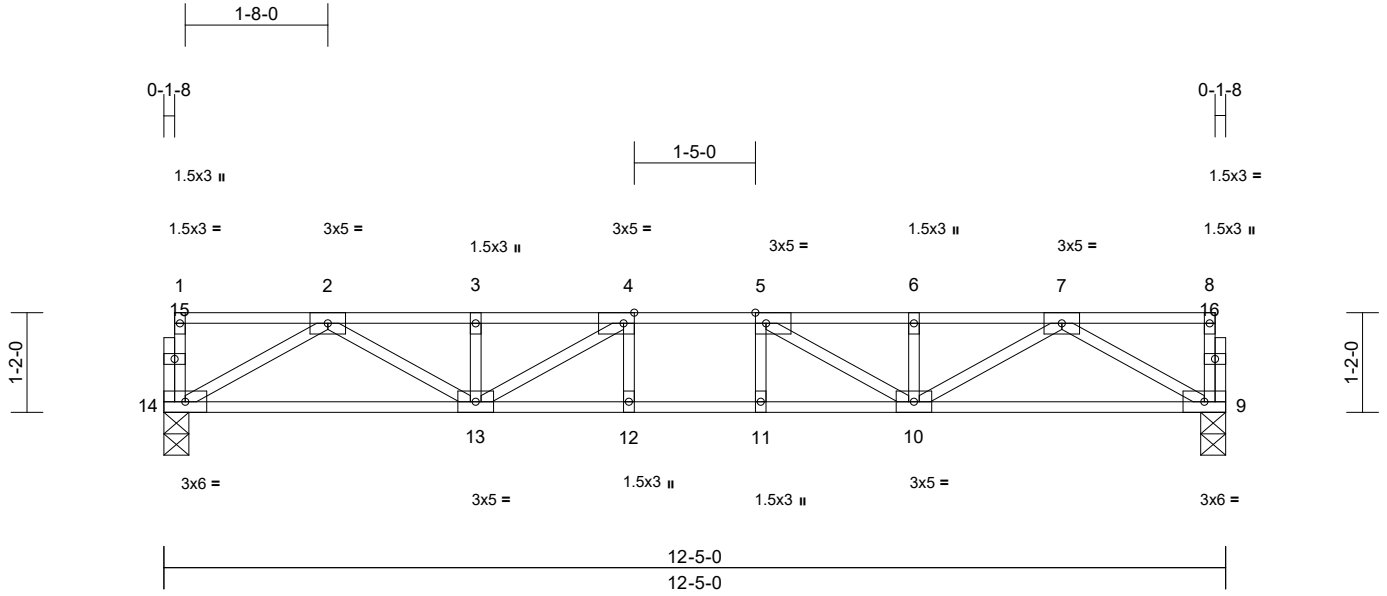
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss F01	Truss Type Floor	Qty 4	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106378
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:08
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Page: 1



Scale = 1:26.9

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,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	0.30	Vert(LL)	-0.08	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.11	11-12	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 64 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 9=0-3-8, 14=0-3-8
Max Grav 9=663 (LC 1), 14=663 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-14=-72/0, 8-9=-72/0, 1-2=-4/0,
2-3=-1632/0, 3-4=-1632/0, 4-5=-1934/0,
5-6=-1632/0, 6-7=-1632/0, 7-8=-4/0
BOT CHORD 13-14=0/996, 12-13=0/1934, 11-12=0/1934,
10-11=0/1934, 9-10=0/996
WEBS 7-9=-1147/0, 2-14=-1147/0, 7-10=0/743,
2-13=0/743, 6-10=-206/7, 3-13=-206/7,
5-10=-506/0, 4-13=-506/0, 4-12=-65/85,
5-11=-65/85

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



January 19, 2024

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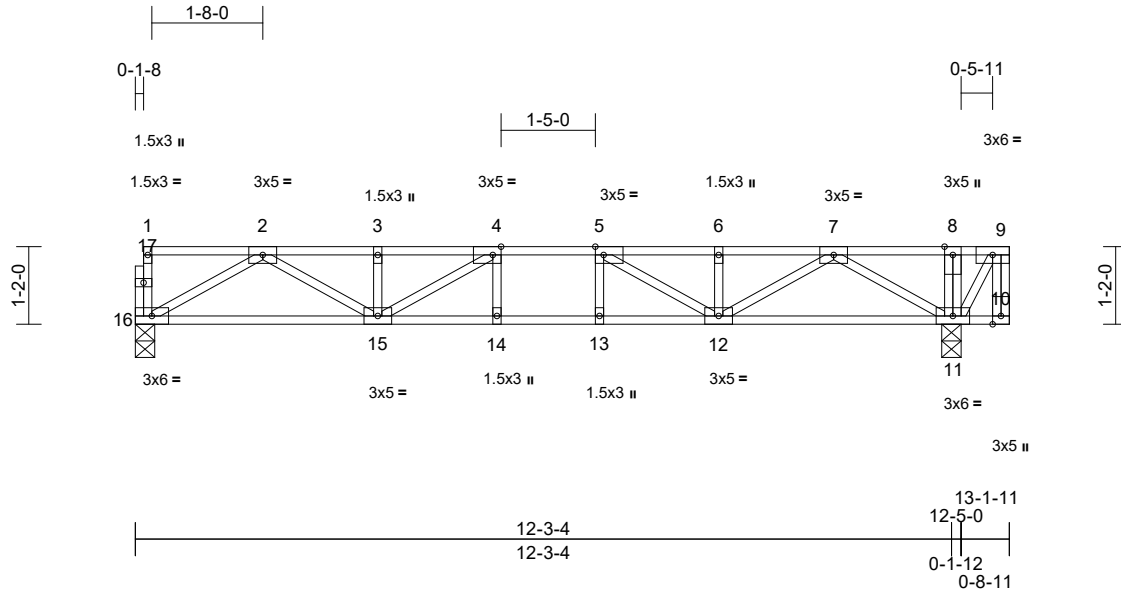
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss F02	Truss Type Floor	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106379
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:08
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Page: 1



Scale = 1:34.6

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,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	0.31	Vert(LL)	-0.08	13-14	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.11	13-14	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.03	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 71 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 11=0-3-8, 16=0-3-8
 Max Grav 11=751 (LC 1), 16=662 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-16=-72/0, 9-10=-16/0, 1-2=-4/0,
 2-3=-1630/0, 3-4=-1630/0, 4-5=-1931/0,
 5-6=-1624/0, 6-7=-1624/0, 7-8=-28/10,
 8-9=-28/10

BOT CHORD 15-16=0/995, 14-15=0/1931, 13-14=0/1931,
 12-13=0/1931, 11-12=0/989, 10-11=0/0

WEBS 8-11=-165/0, 7-11=-1112/0, 2-16=-1146/0,
 7-12=0/745, 2-15=0/742, 6-12=-210/5,
 3-15=-207/7, 5-12=-518/0, 4-15=-504/0,
 4-14=-67/84, 5-13=-61/91, 9-11=-18/50

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



January 19, 2024

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

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



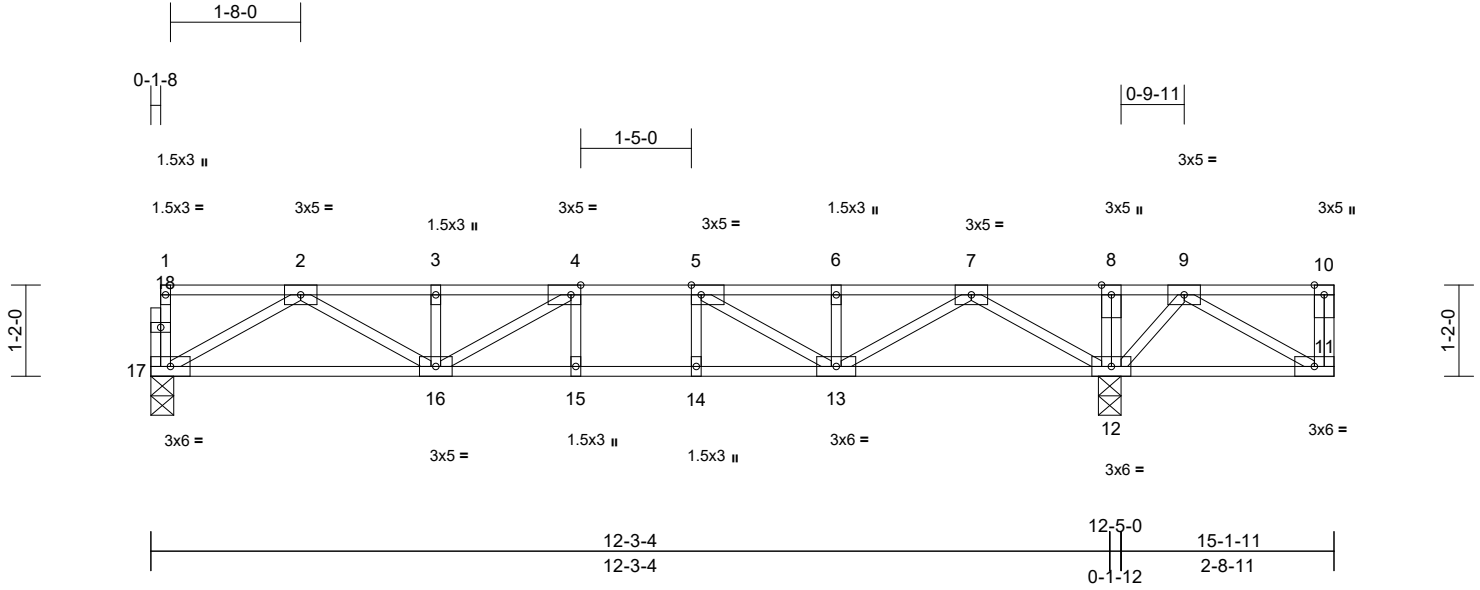
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss F03	Truss Type Floor	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106380
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:08
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Page: 1



Scale = 1:29.5

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.38	Vert(LL)	-0.08	14-15	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	-0.11	14-15	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.03	12	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 80 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) 12=0-3-8, 17=0-3-8
 Max Grav 12=1002 (LC 1), 17=654 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-17=-72/0, 10-11=-75/0, 1-2=-4/0,
 2-3=-1603/0, 3-4=-1603/0, 4-5=-1882/0,
 5-6=-1552/0, 6-7=-1552/0, 7-8=0/373,
 8-9=0/373, 9-10=0/0
 BOT CHORD 16-17=0/980, 15-16=0/1882, 14-15=0/1882,
 13-14=0/1882, 12-13=-67/905, 11-12=-143/0
 WEBS 8-12=-133/0, 7-12=-1178/0, 2-17=-1129/0,
 7-13=0/798, 2-16=0/727, 6-13=-207/17,
 3-16=-217/4, 5-13=-612/0, 4-16=-479/36,
 4-15=-90/78, 5-14=-55/113, 9-11=0/165,
 9-12=-349/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



January 19, 2024

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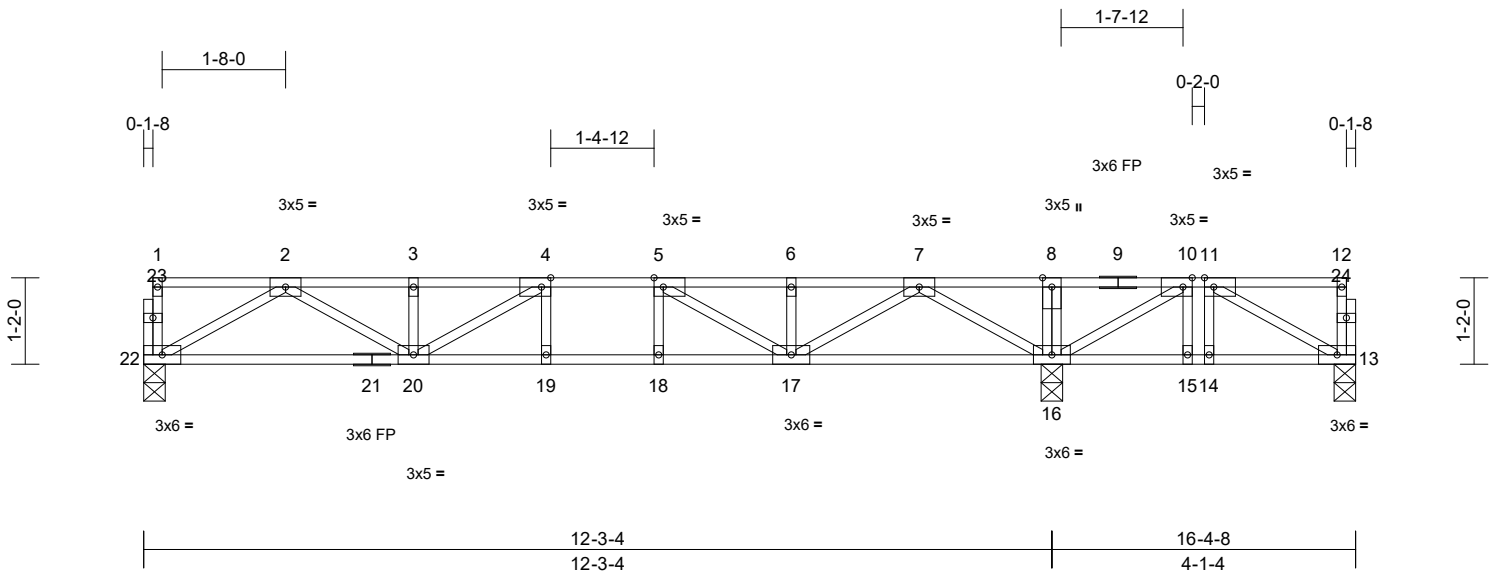
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss F04	Truss Type Floor	Qty 3	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106381
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:09
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Page: 1



Scale = 1:31.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [10:0-1-8,Edge], [11:0-1-8,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	0.47	Vert(LL)	-0.08	19-20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.66	Vert(CT)	-0.11	19-20	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.42	Horz(CT)	0.02	16	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 87 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) 13=0-3-8, 16=0-3-8, 22=0-3-8
Max Uplift 13=193 (LC 3)
Max Grav 13=136 (LC 4), 16=1228 (LC 1), 22=581 (LC 10)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-22=-72/0, 12-13=-89/0, 1-2=-4/0, 2-3=-1367/0, 3-4=-1367/0, 4-5=-1457/0, 5-6=-944/0, 6-7=-944/0, 7-8=0/950, 8-10=0/950, 10-11=-88/420, 11-12=-5/0
BOT CHORD 20-22=0/855, 19-20=0/1457, 18-19=0/1457, 17-18=0/1457, 16-17=0/190, 15-16=-420/88, 14-15=-420/88, 13-14=-420/88
WEBS 8-16=-185/0, 7-16=-1283/0, 2-22=-984/0, 7-17=0/891, 2-20=0/598, 6-17=-184/15, 3-20=-219/0, 5-17=-626/0, 4-20=-262/57, 4-19=-94/26, 5-18=-4/118, 10-16=-780/0, 11-13=-96/484, 11-14=-186/0, 10-15=0/203

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 13. This connection is for uplift only and does not consider lateral forces.

- 4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



January 19, 2024

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

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



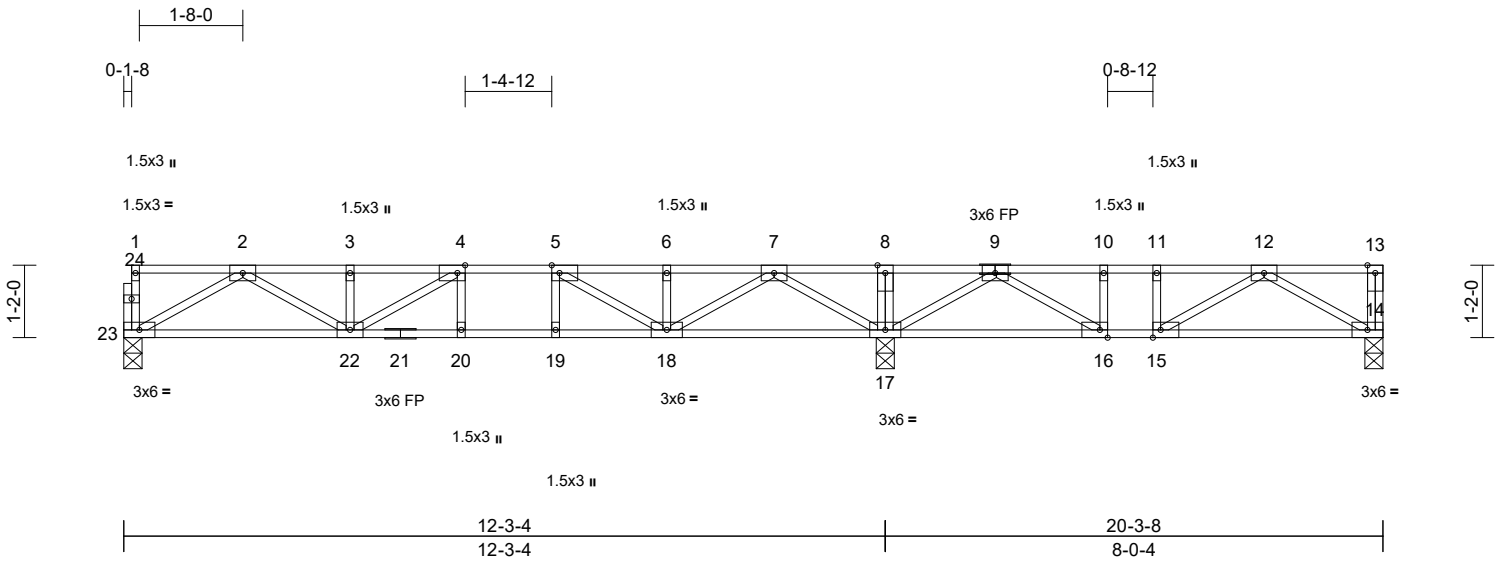
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss F05	Truss Type Floor	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106382
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:09
ID:x5Hu?cP6nb14tw1VWBg8Q4zuONN-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:37.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [5:0-1-8,Edge], [15:0-1-8,Edge], [16:0-1-8,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	0.45	Vert(LL)	-0.08	20-22	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.67	Vert(CT)	-0.11	20-22	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.02	17	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH								
											Weight: 105 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)

- 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.

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.

LOAD CASE(S) Standard

REACTIONS

(size) 14=0-3-8, 17=0-3-8, 23=0-3-8
Max Grav 14=376 (LC 4), 17=1326 (LC 1), 23=588 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-23=-72/0, 13-14=-69/0, 1-2=-4/0, 2-3=-1390/0, 3-4=-1390/0, 4-5=-1498/0, 5-6=-1003/0, 6-7=-1003/0, 7-8=0/983, 8-10=-611/983, 10-11=-611/198, 11-12=-611/198, 12-13=0/0
BOT CHORD 22-23=0/867, 20-22=0/1498, 19-20=0/1498, 18-19=0/1498, 17-18=-114/258, 16-17=-518/251, 15-16=-198/611, 14-15=-42/498
WEBS 8-17=-201/0, 7-17=-1267/0, 2-23=-998/0, 7-18=0/899, 2-22=0/610, 6-18=-184/18, 3-22=-223/0, 5-18=-658/0, 4-22=-248/88, 4-20=-102/22, 5-19=0/125, 9-17=-894/0, 12-14=-576/48, 9-16=0/612, 12-15=-182/131, 10-16=-248/0, 11-15=-60/81

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 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.



January 19, 2024

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

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



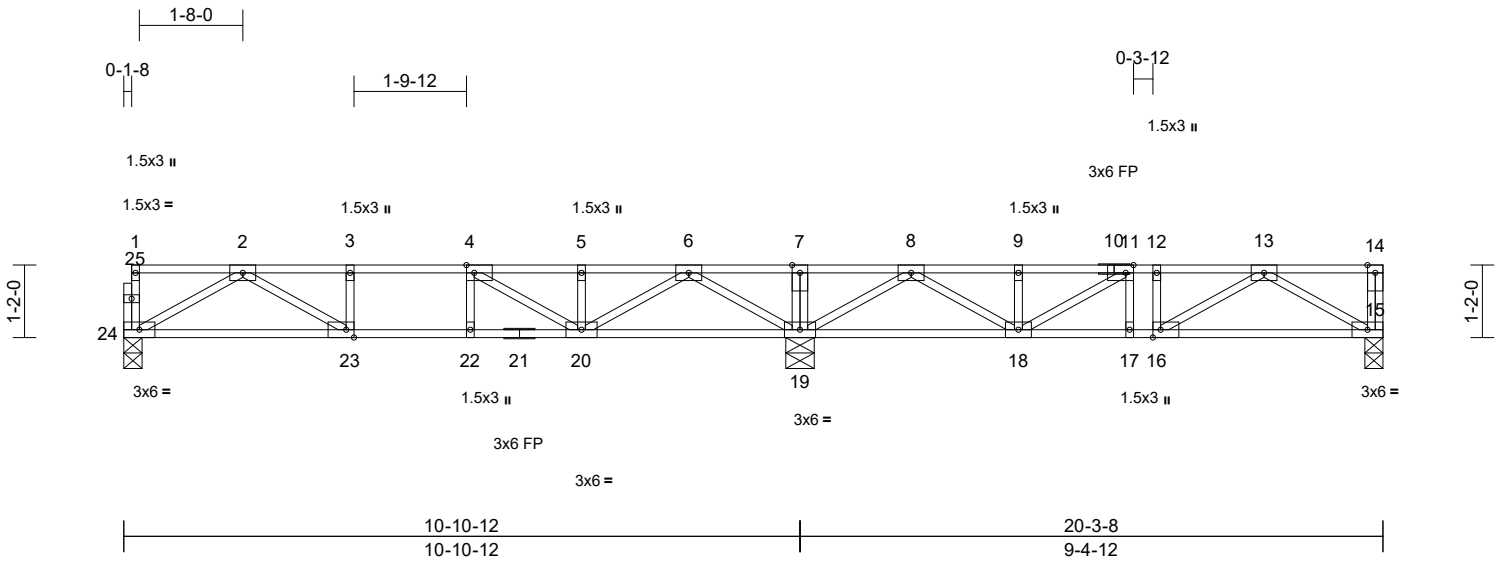
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss F06	Truss Type Floor	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106383
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:09
ID:qtWPq_ScrqoWMXLHI14awzuONJ-RFC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:37.1

Plate Offsets (X, Y): [4:0-1-8,Edge], [11:0-1-8,Edge], [16:0-1-8,Edge], [23:0-1-8,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	0.50	Vert(LL)	-0.06	23-24	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.41	Vert(CT)	-0.08	23-24	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.38	Horz(CT)	0.02	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 105 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)

- 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.

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.

LOAD CASE(S) Standard

REACTIONS (size) 15=0-3-8, 19=0-5-8, 24=0-3-8
Max Grav 15=449 (LC 4), 19=1343 (LC 1), 24=499 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-24=-71/0, 14-15=-72/0, 1-2=-4/0, 2-3=-1090/0, 3-4=-1090/0, 4-5=-767/0, 5-6=-767/0, 6-7=0/1181, 7-8=0/1181, 8-9=-758/259, 9-11=-758/259, 11-12=-886/54, 12-13=-886/54, 13-14=0/0
BOT CHORD 23-24=0/715, 22-23=0/1090, 20-22=0/1090, 19-20=-241/119, 18-19=-535/287, 17-18=-54/886, 16-17=-54/886, 15-16=0/624
WEBS 7-19=-197/0, 6-19=-1161/0, 2-24=-822/0, 6-20=0/802, 2-23=0/437, 5-20=-184/10, 3-23=-186/0, 4-20=-504/0, 4-22=-11/63, 8-19=-1052/0, 13-15=-721/0, 8-18=0/701, 13-16=-83/307, 9-18=-186/0, 12-16=-95/54, 11-18=-412/0, 11-17=-46/69

NOTES
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 3x5 MT20 unless otherwise indicated.
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.



January 19, 2024

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

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



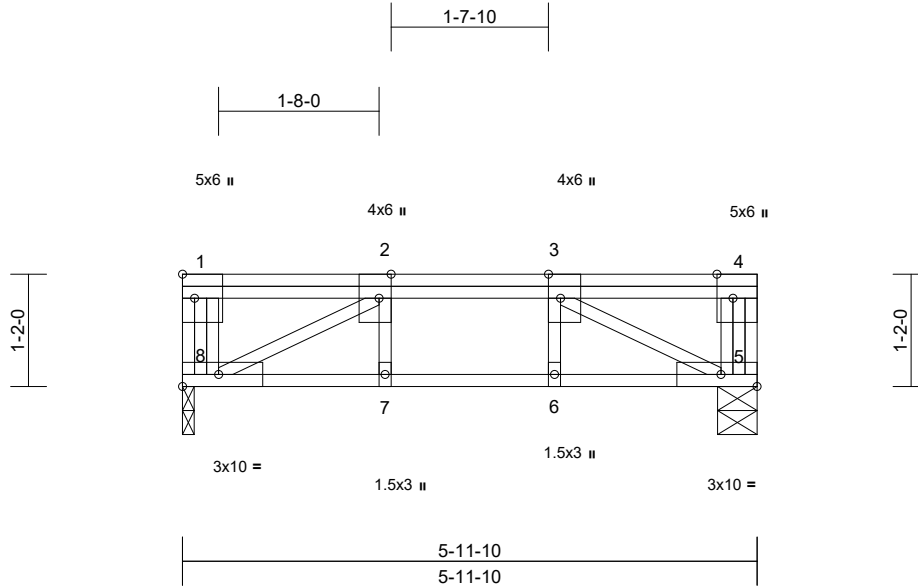
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss F07	Truss Type Floor	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106384
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:10
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Page: 1



Scale = 1:23.9

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

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.25	Vert(LL)	-0.02	7-8	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.34	Vert(CT)	-0.03	7-8	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.27	Horz(CT)	0.01	5	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 42 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=0-4-15, 8=0-1-7
Max Grav 5=727 (LC 1), 8=727 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-236/0, 4-5=-236/0, 1-2=0/0, 2-3=-995/0, 3-4=0/0
BOT CHORD 7-8=0/995, 6-7=0/995, 5-6=0/995
WEBS 3-5=-1117/0, 2-8=-1117/0, 2-7=-6/42, 3-6=-6/42

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 8.
- 3) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 4) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard

- 1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 5-8=-10, 1-4=-250



January 19, 2024

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ENGINEERING BY
TRENCO
A MiTek Affiliate

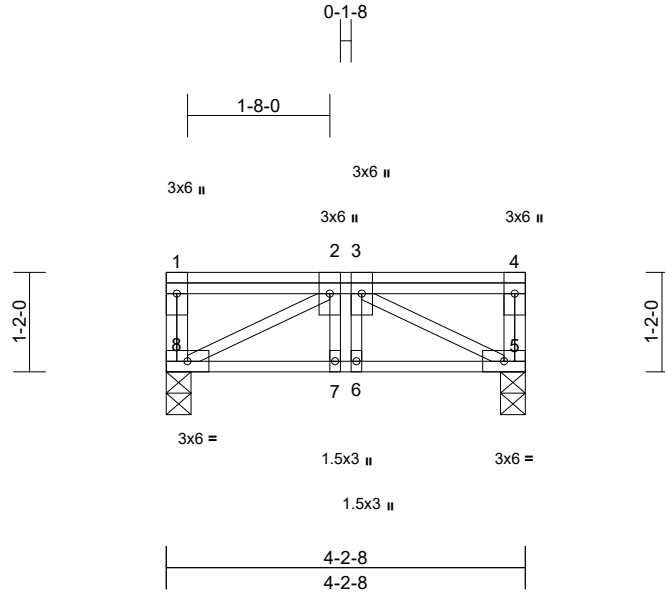
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 86 FaNC	163106385
23120149	F08	Floor	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:10
ID:gk9xm9b0Ov_YTao53?vLj1zuOKZ-RfC?PsB70Hq3NSgPqnL8w3uITxbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:27

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	0.07	Vert(LL)	0.00	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.09	Vert(CT)	0.00	5-6	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 31 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-2-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

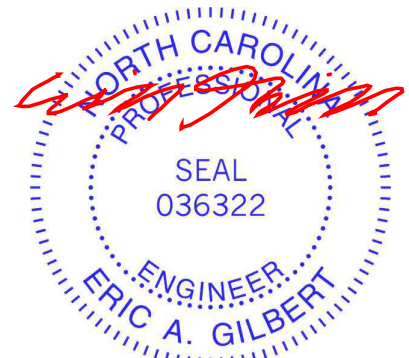
REACTIONS (size) 5=0-3-8, 8=0-3-8
Max Grav 5=218 (LC 1), 8=218 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-8=-85/0, 4-5=-85/0, 1-2=0/0, 2-3=-247/0, 3-4=0/0
BOT CHORD 7-8=0/247, 6-7=0/247, 5-6=0/247
WEBS 3-5=-279/0, 2-8=-279/0, 2-7=-15/39, 3-6=-15/39

NOTES

- Unbalanced floor live loads have been considered for this design.
- 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.
- Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

LOAD CASE(S) Standard



January 19, 2024

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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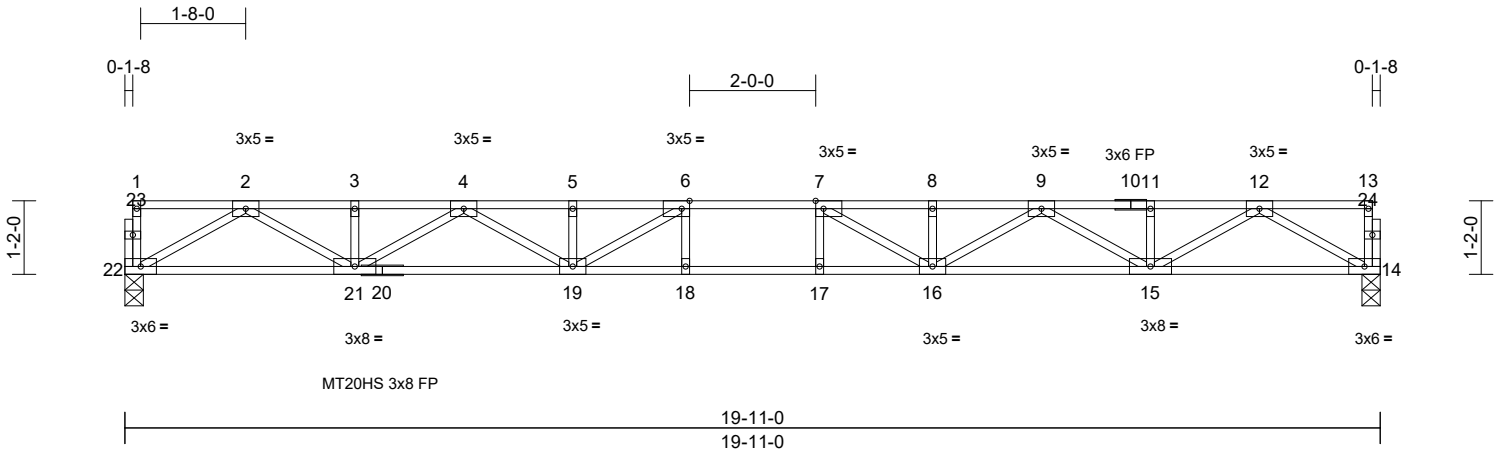
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss F09	Truss Type Floor	Qty 3	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106386
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:10
ID:d68p6_?an8FzZGEIATJyIPzuO4X-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:36.6

Plate Offsets (X, Y): [6:0-1-8,Edge], [7:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.32	17-18	>747	360	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.73	Vert(CT)	-0.44	17-18	>542	240	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.07	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH								
											Weight: 100 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP No.2(flat) *Except* 20-14:2x4 SP No.1(flat)
 WEBS 2x4 SP No.3(flat)
 OTHERS 2x4 SP No.3(flat)

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

LOAD CASE(S) Standard

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) 14=0-3-8, 22=0-3-8
 Max Grav 14=717 (LC 1), 22=717 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-22=-48/0, 13-14=-47/0, 1-2=-3/0, 2-3=-2013/0, 3-4=-2013/0, 4-5=-3118/0, 5-6=-3118/0, 6-7=-3371/0, 7-8=-3118/0, 8-9=-3118/0, 9-11=-2012/0, 11-12=-2012/0, 12-13=-3/0
 BOT CHORD 21-22=0/1135, 19-21=0/2665, 18-19=0/3371, 17-18=0/3371, 16-17=0/3371, 15-16=0/2665, 14-15=0/1136
 WEBS 12-14=-1311/0, 2-22=-1310/0, 12-15=0/1023, 2-21=0/1024, 11-15=-112/0, 3-21=-113/0, 9-15=-762/0, 4-21=-761/0, 9-16=0/530, 4-19=0/530, 8-16=-157/37, 5-19=-157/37, 7-16=-567/67, 6-19=-567/67, 6-18=-85/108, 7-17=-85/108

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 1.5x3 MT20 unless otherwise indicated.
- 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.



January 19, 2024

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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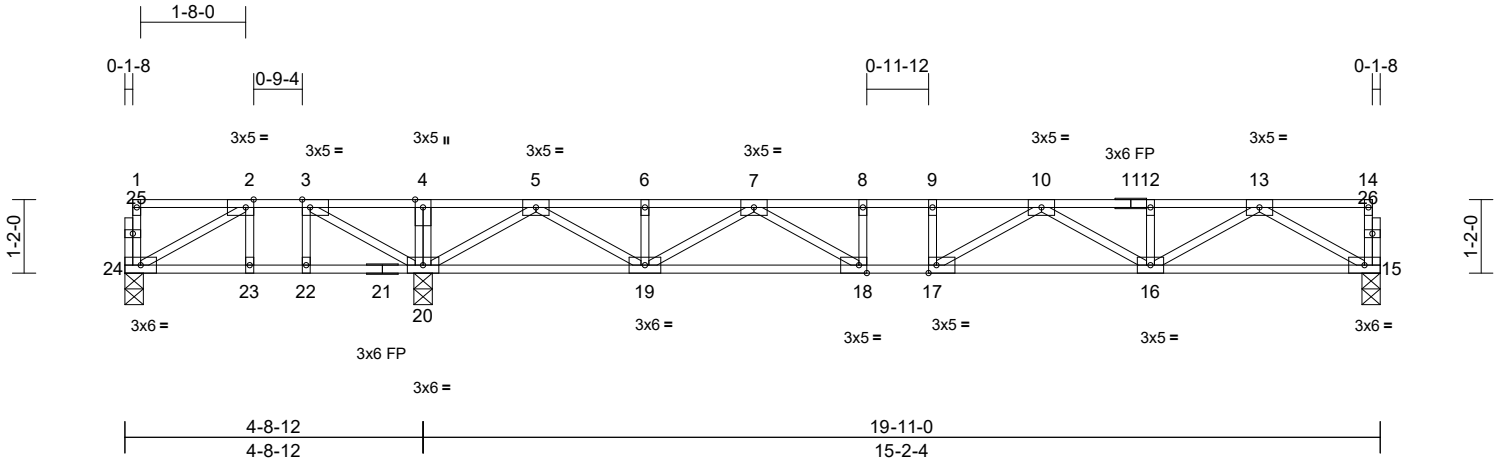
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss F10	Truss Type Floor	Qty 2	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	I63106387
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:10
ID:9B6sTSCd?3GhUjSM6rbixnzuO4H-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:36.6

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,Edge]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.56	Vert(LL)	-0.10	16-17	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.50	Vert(CT)	-0.14	16-17	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.39	Horz(CT)	0.02	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH								
											Weight: 103 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) 15=0-3-8, 20=0-3-8, 24=0-3-8
 Max Uplift 24=-158 (LC 4)
 Max Grav 15=488 (LC 7), 20=992 (LC 1), 24=105 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-24=-79/0, 14-15=-47/0, 1-2=-5/0,
 2-3=-62/395, 3-4=0/935, 4-5=0/935,
 5-6=-784/0, 6-7=-784/0, 7-8=-1559/0,
 8-9=-1559/0, 9-10=-1559/0, 10-12=-1245/0,
 12-13=-1245/0, 13-14=-3/0
 BOT CHORD 23-24=-395/62, 22-23=-395/62,
 20-22=-395/62, 19-20=-41/87, 18-19=0/1257,
 17-18=0/1559, 16-17=0/1519, 15-16=0/746
 WEBS 4-20=-103/0, 3-20=-728/0, 2-24=-67/456,
 2-23=-134/0, 3-22=0/153, 5-20=-1095/0,
 13-15=-860/0, 5-19=0/828, 13-16=0/583,
 6-19=-117/0, 12-16=-104/0, 7-19=-563/0,
 10-16=-319/0, 7-18=0/439, 10-17=-116/216,
 8-18=-154/0, 9-17=-79/15

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 1.5x3 MT20 unless otherwise indicated.
- 3) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 24. This connection is for uplift only and does not consider lateral forces.

- 4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



January 19, 2024

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.sbccomponents.com)



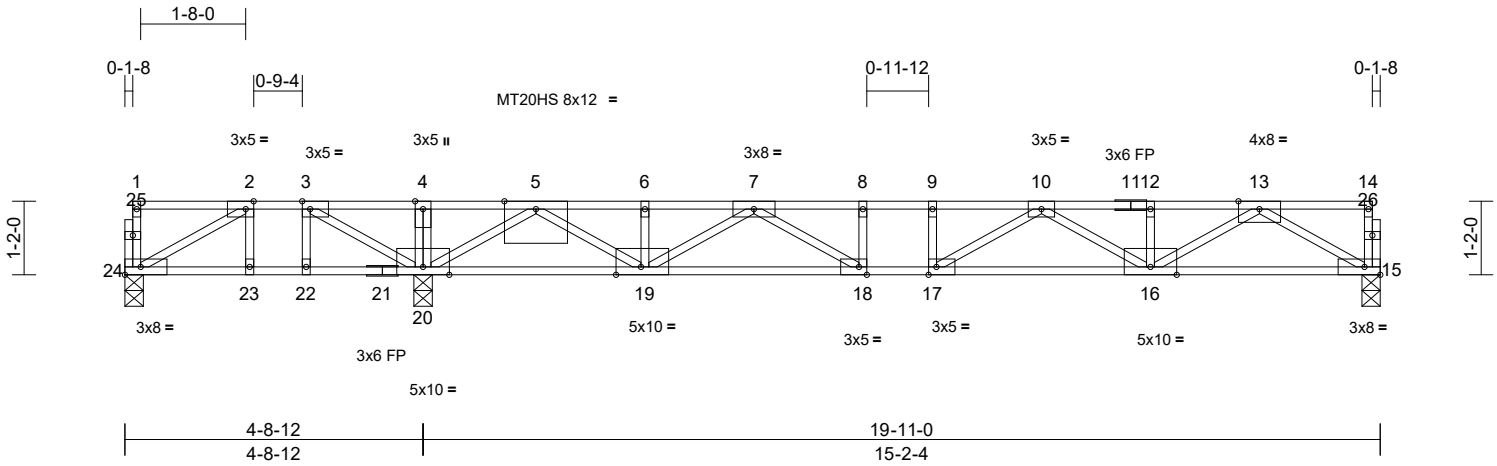
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss F10A	Truss Type Floor	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106388
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:10
ID:9B6sTSCd?3GhUjSM6rbxnzuO4H-RfC?Psb70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?F

Page: 1



Scale = 1:36.6

Plate Offsets (X, Y): [2:0-1-8,Edge], [3:0-1-8,Edge], [17:0-1-8,Edge], [18:0-1-8,Edge], [19:0-4-12,Edge]

Loading	(psf)	Spacing	1-4-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL	40.0	Plate Grip DOL	1.00	TC	0.83	Vert(LL)	-0.24	16-17	>755	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.86	Vert(CT)	-0.33	16-17	>549	360	MT20HS	187/143
BCLL	0.0	Rep Stress Incr	NO	WB	0.84	Horz(CT)	0.05	15	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH								
											Weight: 103 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP 2400F 2.0E(flat) *Except* 11-14:2x4 SP No.2(flat)
 BOT CHORD 2x4 SP No.2(flat) *Except* 21-15:2x4 SP 2400F 2.0E(flat)
 WEBS 2x4 SP No.3(flat) *Except* 19-5:2x4 SP No.2 (flat)
 OTHERS 2x4 SP No.3(flat)

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-11-12 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 15=0-3-8, 20=0-3-8, 24=0-3-8
 Max Uplift 24=434 (LC 4)
 Max Grav 15=1501 (LC 7), 20=2959 (LC 1), 24=328 (LC 3)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-24=-259/0, 14-15=-150/0, 1-2=-16/0, 2-3=-210/1096, 3-4=0/2645, 4-5=0/2645, 5-6=-2541/0, 6-7=-2541/0, 7-8=-4851/0, 8-9=-4851/0, 9-10=-4851/0, 10-12=-3823/0, 12-13=-3823/0, 13-14=-9/0
 BOT CHORD 23-24=-1096/210, 22-23=-1096/210, 20-22=-1096/210, 19-20=-25/466, 18-19=0/3978, 17-18=0/4851, 16-17=0/4710, 15-16=0/2314
 WEBS 4-20=-339/0, 3-20=-2097/0, 2-24=-227/1266, 2-23=-329/0, 3-22=0/351, 5-20=-3317/0, 13-15=-2667/0, 5-19=0/2470, 13-16=0/1761, 6-19=-382/0, 12-16=-337/0, 7-19=-1716/0, 10-16=-1035/0, 7-18=0/1298, 10-17=-352/669, 8-18=-483/0, 9-17=-266/22

NOTES

- Unbalanced floor live loads have been considered for this design.
- All plates are MT20 unless otherwise indicated.

- All plates are 1.5x3 MT20 unless otherwise indicated.
 - One RT8A MiTek connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 24. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - 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: 15-24=-7, 1-14=-217



January 19, 2024

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.sbccomponents.com)



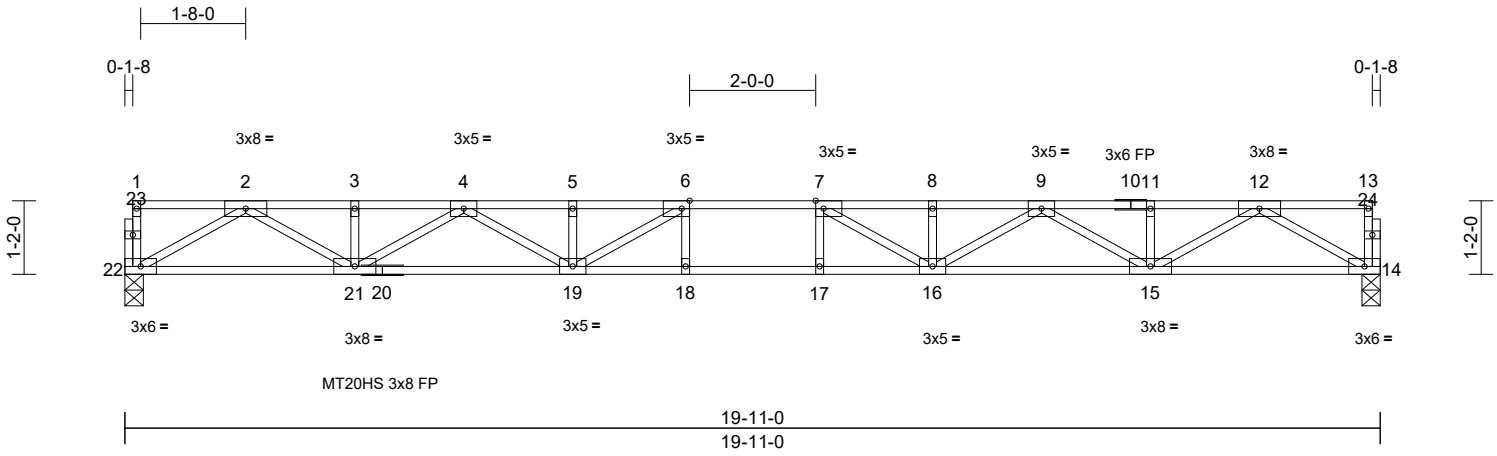
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss F11	Truss Type Floor	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106389
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:11
ID:2zMNIqF73Hm7zKm8Lgge6dzuO4D-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Scale = 1:36.6

Plate Offsets (X, Y): [6:0-1-8,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	0.60	Vert(LL)	-0.38	17-18	>623	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.52	17-18	>452	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.08	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH								
											Weight: 100 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP No.2(flat) *Except* 20-14:2x4 SP No.1(flat)
 WEBS 2x4 SP No.3(flat)
 OTHERS 2x4 SP No.3(flat)

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

LOAD CASE(S) Standard

BRACING

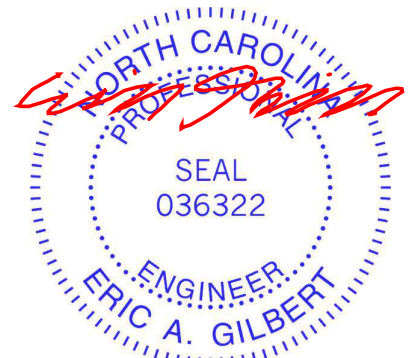
TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 22=0-3-8
 Max Grav 14=860 (LC 1), 22=860 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-22=-57/0, 13-14=-57/0, 1-2=-3/0, 2-3=-2414/0, 3-4=-2414/0, 4-5=-3739/0, 5-6=-3739/0, 6-7=-4042/0, 7-8=-3739/0, 8-9=-3739/0, 9-11=-2413/0, 11-12=-2413/0, 12-13=-3/0
 BOT CHORD 21-22=0/1362, 19-21=0/3195, 18-19=0/4042, 17-18=0/4042, 16-17=0/4042, 15-16=0/3196, 14-15=0/1362
 WEBS 12-14=-1572/0, 2-22=-1571/0, 12-15=0/1227, 2-21=0/1228, 11-15=-134/0, 3-21=-135/0, 9-15=-913/0, 4-21=-913/0, 9-16=0/635, 4-19=0/635, 8-16=-188/45, 5-19=-188/45, 7-16=-680/80, 6-19=-680/80, 6-18=-101/129, 7-17=-102/129

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 1.5x3 MT20 unless otherwise indicated.
- 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.



January 19, 2024

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

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



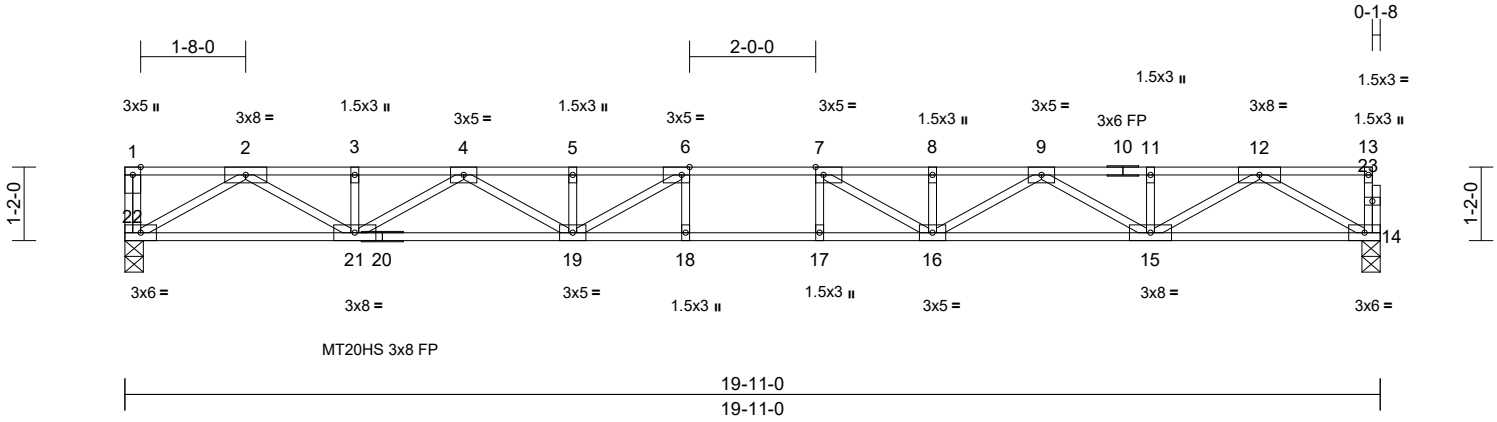
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss F12	Truss Type Floor	Qty 3	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106390
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:11
ID:SY1WxsH0MC8iqoUi0pDLkFzuO4A-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCdoi7J4zJC?f

Page: 1



Scale = 1:36.6

Plate Offsets (X, Y): [6:0-1-8,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	0.60	Vert(LL)	-0.38	17-18	>623	480	MT20HS	187/143
TCDL	10.0	Lumber DOL	1.00	BC	0.88	Vert(CT)	-0.52	17-18	>452	360	MT20	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.58	Horz(CT)	0.08	14	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH								
											Weight: 101 lb	FT = 20%F, 11%E

LUMBER

TOP CHORD 2x4 SP No.2(flat)
 BOT CHORD 2x4 SP No.2(flat) *Except* 20-14:2x4 SP No.1(flat)
 WEBS 2x4 SP No.3(flat)
 OTHERS 2x4 SP No.3(flat)

- 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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 14=0-3-8, 22=0-3-8
 Max Grav 14=860 (LC 1), 22=865 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-22=-59/0, 13-14=-57/0, 1-2=0/0, 2-3=-2413/0, 3-4=-2413/0, 4-5=-3739/0, 5-6=-3739/0, 6-7=-4043/0, 7-8=-3740/0, 8-9=-3740/0, 9-11=-2413/0, 11-12=-2413/0, 12-13=-3/0
 BOT CHORD 21-22=0/1363, 19-21=0/3196, 18-19=0/4043, 17-18=0/4043, 16-17=0/4043, 15-16=0/3196, 14-15=0/1362
 WEBS 12-14=-1572/0, 2-22=-1577/0, 12-15=0/1227, 2-21=0/1226, 11-15=-134/0, 3-21=-134/0, 9-15=-913/0, 4-21=-913/0, 9-16=0/635, 4-19=0/635, 8-16=-188/45, 5-19=-188/45, 7-16=-680/80, 6-19=-680/80, 6-18=-101/129, 7-17=-102/129

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are MT20 plates unless otherwise indicated.
- 3) All plates are 1.5x3 MT20 unless otherwise indicated.
- 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.



January 19, 2024

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

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



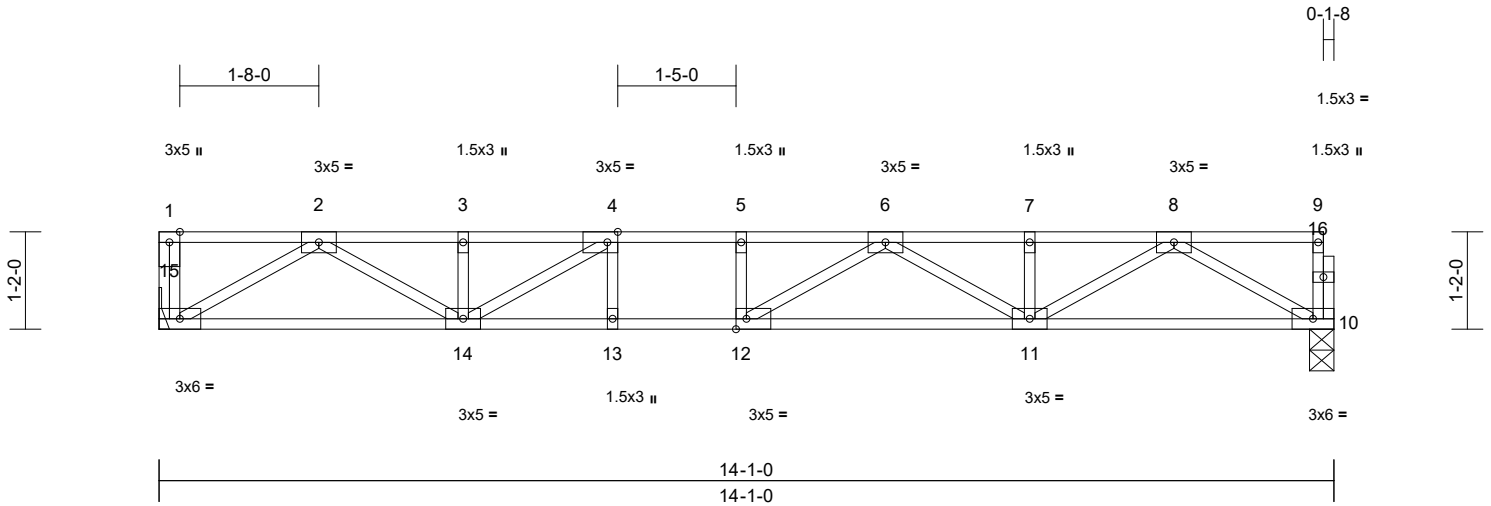
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss F13	Truss Type Floor	Qty 2	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106391
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:11
ID:LJH0mDKWQR7IPoUFelHu5zuO46-RfC?PsB70Hq3NSgPqnl8w3ulTXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:27.6

Plate Offsets (X, Y): [4:0-1-8,Edge], [12:0-1-8,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	0.45	Vert(LL)	-0.13	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.19	11-12	>890	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.03	10	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MSH							Weight: 72 lb	FT = 20%F, 11%E

LUMBER

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

BRACING

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

REACTIONS (size) 10=0-3-8, 15= Mechanical
 Max Grav 10=603 (LC 1), 15=608 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-15=-59/0, 9-10=-56/0, 1-2=0/0,
 2-3=-1539/0, 3-4=-1539/0, 4-5=-1977/0,
 5-6=-1977/0, 6-7=-1554/0, 7-8=-1554/0,
 8-9=-3/0

BOT CHORD 14-15=0/923, 13-14=0/1977, 12-13=0/1977,
 11-12=0/1909, 10-11=0/926

WEBS 8-10=-1067/0, 2-15=-1067/0, 8-11=0/733,
 2-14=0/719, 7-11=-124/0, 3-14=-151/34,
 6-11=-415/0, 4-14=-609/0, 6-12=-103/298,
 4-13=-26/104, 5-12=-108/0

NOTES

- 1) Unbalanced floor live loads have been considered for this design.
- 2) All plates are 3x5 MT20 unless otherwise indicated.
- 3) Refer to girder(s) for truss to truss connections.
- 4) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 5) Recommend 2x6 strongbacks, on edge, spaced at 10-00-00 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
- 6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard



January 19, 2024

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

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



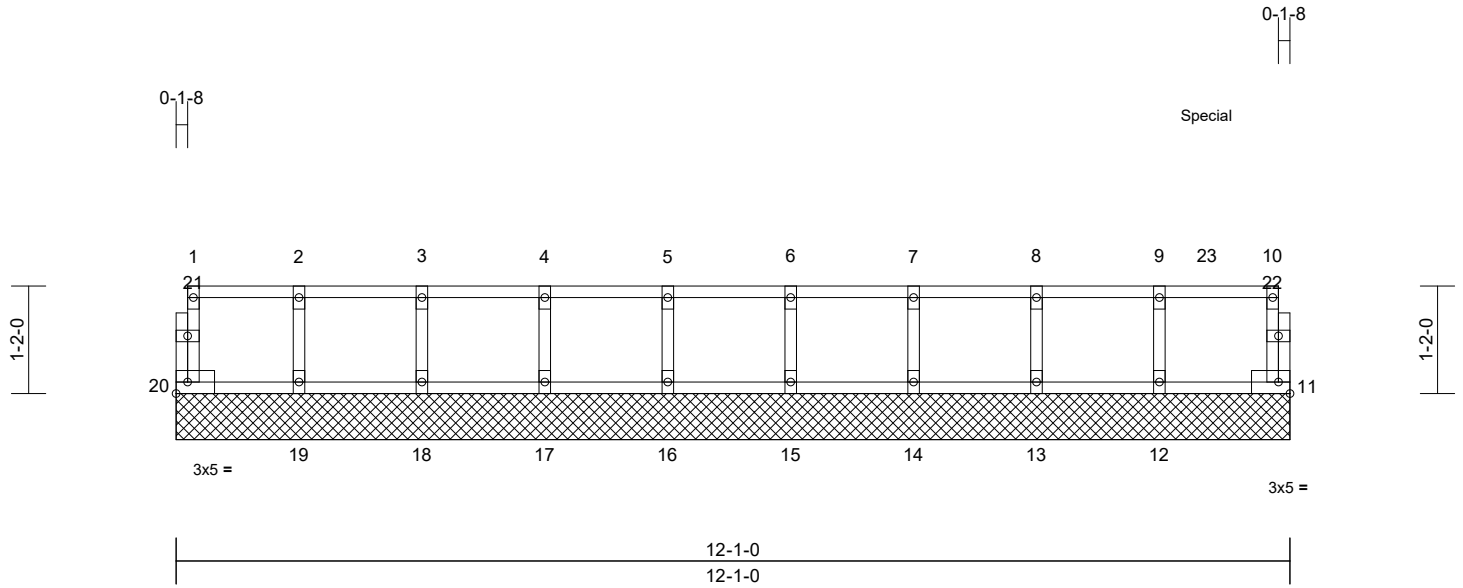
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss FW12	Truss Type Floor Supported Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106392
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:11
ID:D4WXcbN1Tg8Zn06FUUMD2xzuO42-RFC?PsB70Hq3NSgPqnL8w3uITXbGKwRCDoi7J4zJC?f

Page: 1



Scale = 1:25

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	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.06	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	5.0	Code	IRC2018/TPI2014	Matrix-MR							Weight: 51 lb	FT = 20%F, 11%E

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

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

REACTIONS (size)
11=12-1-0, 12=12-1-0, 13=12-1-0,
14=12-1-0, 15=12-1-0, 16=12-1-0,
17=12-1-0, 18=12-1-0, 19=12-1-0,
20=12-1-0
Max Uplift 11=-15 (LC 8), 12=-25 (LC 8)
Max Grav 11=110 (LC 6), 12=238 (LC 6),
13=138 (LC 1), 14=149 (LC 1),
15=146 (LC 1), 16=147 (LC 1),
17=146 (LC 1), 18=150 (LC 1),
19=135 (LC 1), 20=62 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-20=-54/0, 10-11=-110/21, 1-2=-20/3,
2-3=-20/3, 3-4=-20/3, 4-5=-20/3, 5-6=-20/3,
6-7=-20/3, 7-8=-20/3, 8-9=-20/3, 9-10=-20/3
BOT CHORD 19-20=-3/20, 18-19=-3/20, 17-18=-3/20,
16-17=-3/20, 15-16=-3/20, 14-15=-3/20,
13-14=-3/20, 12-13=-3/20, 11-12=-3/20
WEBS 2-19=-127/0, 3-18=-135/0, 4-17=-133/0,
5-16=-134/0, 6-15=-133/0, 7-14=-135/0,
8-13=-126/0, 9-12=-219/30

- NOTES**
- 1) Unbalanced floor live loads have been considered for this design.
 - 2) All plates are 1.5x3 MT20 unless otherwise indicated.
 - 3) Gable requires continuous bottom chord bearing.
 - 4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - 5) Gable studs spaced at 1-4-0 oc.

- 6) N/A
 - 7) 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.
 - 8) 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.
 - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 193 lb down and 67 lb up at 11-2-4 on top chord. The design/selection of such connection device(s) is the responsibility of others.
 - 10) 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: 11-20=-10, 1-10=-100
Concentrated Loads (lb)
Vert: 23=-62 (F)



January 19, 2024

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

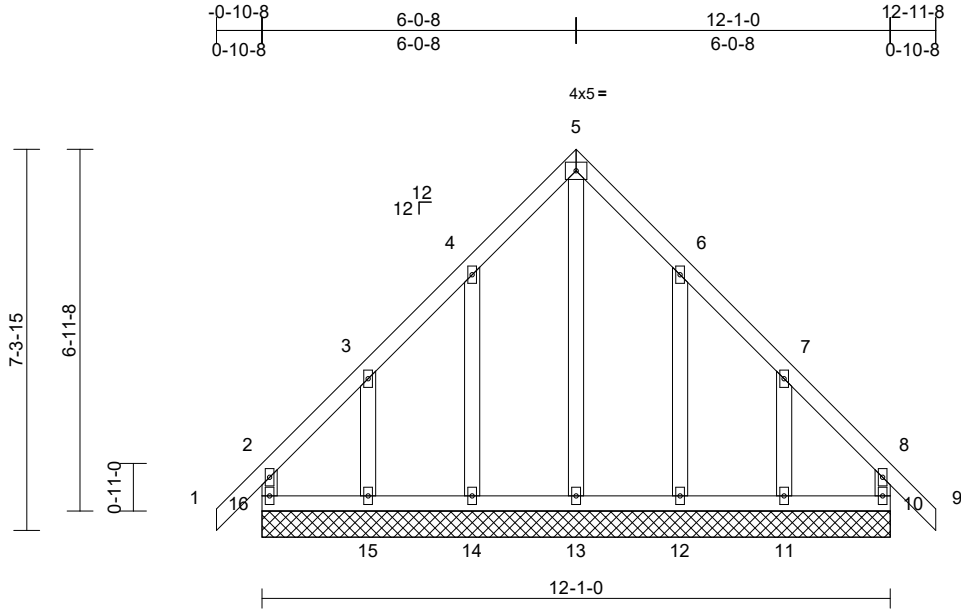
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss H01	Truss Type Common Supported Gable	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106393
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:12
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Page: 1



Scale = 1:44.3

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MR								
BCDL	10.0											
											Weight: 79 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 6-0-0 oc bracing.

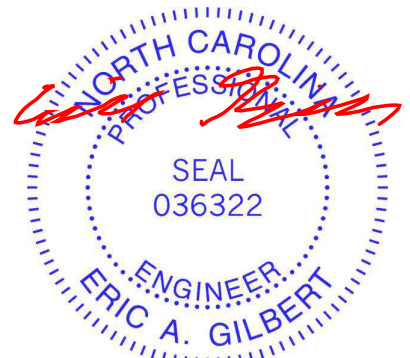
REACTIONS (size)
10=12-1-0, 11=12-1-0, 12=12-1-0, 13=12-1-0, 14=12-1-0, 15=12-1-0, 16=12-1-0
Max Horiz 16=-187 (LC 12)
Max Uplift 10=-55 (LC 11), 11=-145 (LC 15), 12=-88 (LC 15), 14=-87 (LC 14), 15=-149 (LC 14), 16=-73 (LC 10)
Max Grav 10=169 (LC 24), 11=201 (LC 25), 12=286 (LC 22), 13=219 (LC 15), 14=286 (LC 21), 15=207 (LC 24), 16=184 (LC 29)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-16=-151/67, 1-2=0/43, 2-3=-125/114, 3-4=-103/128, 4-5=-187/232, 5-6=-187/232, 6-7=-102/127, 7-8=-106/93, 8-9=0/43, 8-10=-139/52
BOT CHORD 15-16=-86/102, 14-15=-86/102, 13-14=-86/102, 12-13=-86/102, 11-12=-86/102, 10-11=-86/102
WEBS 5-13=-260/143, 4-14=-246/126, 3-15=-191/148, 6-12=-246/125, 7-11=-184/152

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) exterior zone and C-C Corner(3E) -0-10-8 to 2-0-8, Exterior(2N) 2-0-8 to 3-0-8, Corner(3R) 3-0-8 to 9-0-8, Exterior(2N) 9-0-8 to 9-11-8, Corner(3E) 9-11-8 to 12-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 16, 55 lb uplift at joint 10, 87 lb uplift at joint 14, 149 lb uplift at joint 15, 88 lb uplift at joint 12 and 145 lb uplift at joint 11.

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



January 19, 2024

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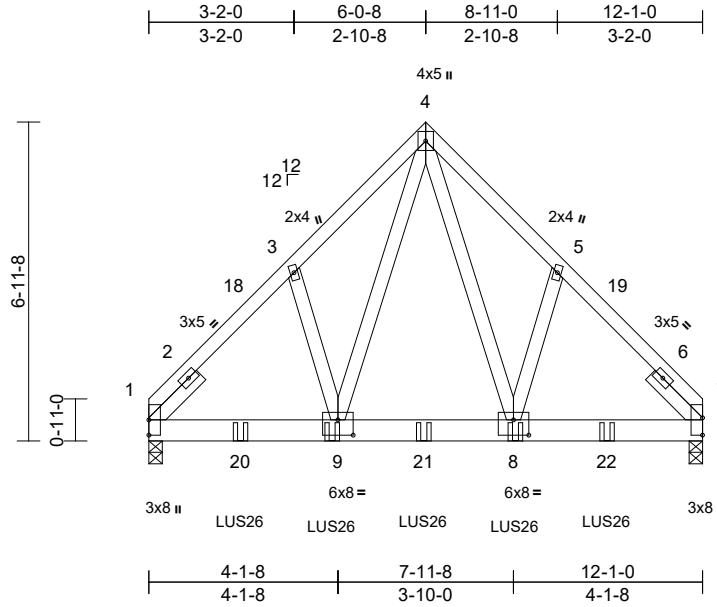
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss H02	Truss Type Common Girder	Qty 1	Ply 2	DRB GROUP - 86 FaNC Job Reference (optional)	163106394
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:12
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Page: 1



Scale = 1:50.3

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

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	0.22	Vert(LL)	-0.03	8-9	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.06	8-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.01	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 176 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3
 SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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=0-3-8, 7=0-3-8
 Max Horiz 1=-142 (LC 35)
 Max Uplift 1=-139 (LC 13), 7=-138 (LC 12)
 Max Grav 1=3041 (LC 18), 7=3020 (LC 19)

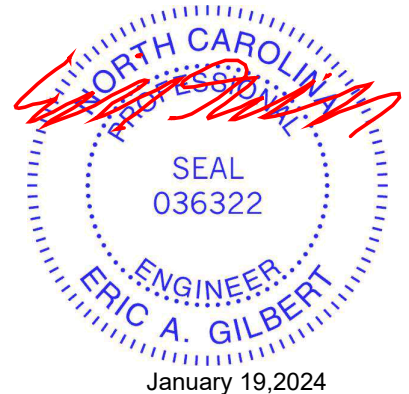
FORCES

(lb) - Maximum Compression/Maximum Tension
 TOP CHORD 1-3=-3195/188, 3-4=-3112/262, 4-5=-3111/262, 5-7=-3195/188
 BOT CHORD 1-9=-141/2189, 8-9=-62/1548, 7-8=-87/2189
 WEBS 4-8=-207/2146, 5-8=-134/218, 4-9=-207/2146, 3-9=-135/217

NOTES

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
- All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
- 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; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
 - One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 7. This connection is for uplift only and does not consider lateral forces.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
 - Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-0 from the left end to 10-0-0 to connect truss(es) to back face of bottom chord.
 - Fill all nail holes where hanger is in contact with lumber.
- LOAD CASE(S)** Standard
- Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (lb/ft)
 Vert: 1-4=-60, 4-7=-60, 10-14=-20
 Concentrated Loads (lb)
 Vert: 8=-986 (B), 9=-986 (B), 20=-986 (B), 21=-986 (B), 22=-986 (B)



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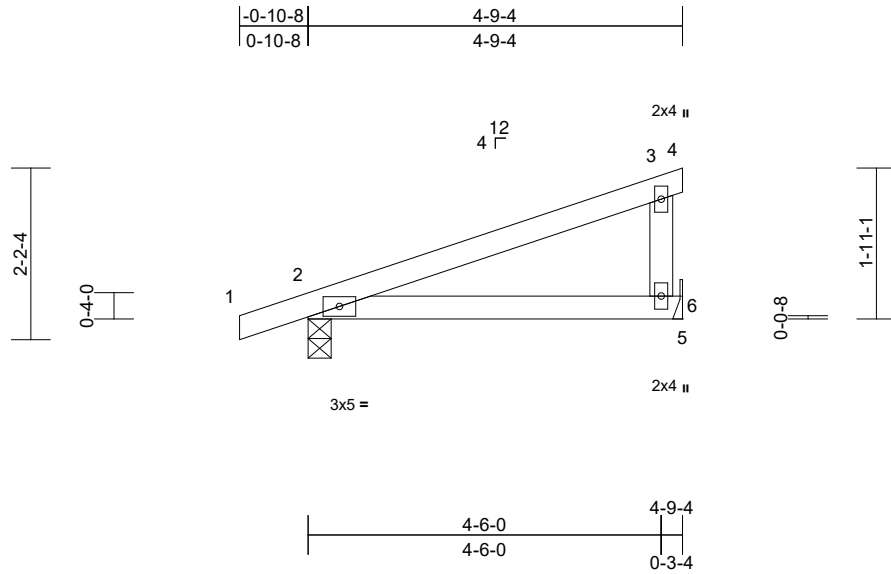
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss M01	Truss Type Monopitch	Qty 4	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106395
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:29.4

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	0.38	Vert(LL)	0.07	6-9	>721	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	0.06	6-9	>887	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	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
WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-9-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=0-3-8, 6= Mechanical
Max Horiz 2=68 (LC 13)
Max Uplift 2=-98 (LC 10), 6=-72 (LC 10)
Max Grav 2=330 (LC 21), 6=268 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/25, 2-3=-106/141, 3-4=-8/0,
3-6=-191/159
BOT CHORD 2-6=-146/89, 5-6=0/0

NOTES

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust)
Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft;
Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 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 1.00 times flat roof load of 20.0 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) Refer to girder(s) for truss to truss connections.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 72 lb uplift at joint 6.
- 9) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 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.

LOAD CASE(S) Standard



January 19, 2024

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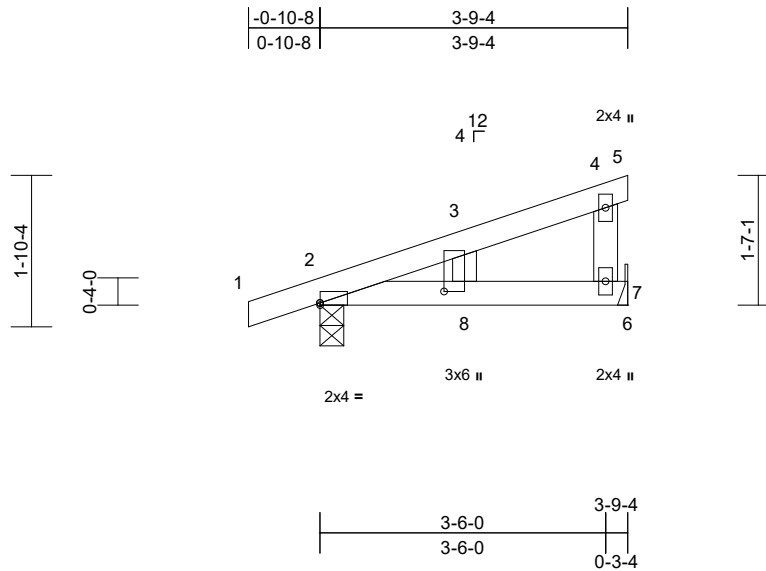
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 86 FaNC	163106396
23120149	M02	Monopitch	1	1	Job Reference (optional)	

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

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Page: 1



Scale = 1:28.2

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

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	0.17	Vert(LL)	0.03	8	>999	240	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	0.02	8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.01	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 15 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 3-9-4 oc purlins, except end verticals.
- BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

- (size) 2=0-3-8, 7= Mechanical
- Max Horiz 2=55 (LC 13)
- Max Uplift 2=-85 (LC 10), 7=-55 (LC 10)
- Max Grav 2=275 (LC 21), 7=210 (LC 21)

FORCES

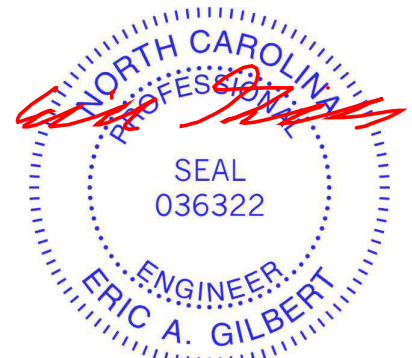
- (lb) - Maximum Compression/Maximum Tension
- TOP CHORD 1-2=0/24, 2-3=-79/97, 3-4=-26/35, 4-5=-8/0, 4-7=-138/120
- BOT CHORD 2-8=-99/57, 7-8=-15/23, 6-7=0/0
- WEBS 3-8=-63/36

NOTES

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

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable 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.
- Refer to girder(s) for truss to truss connections.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 7.
- One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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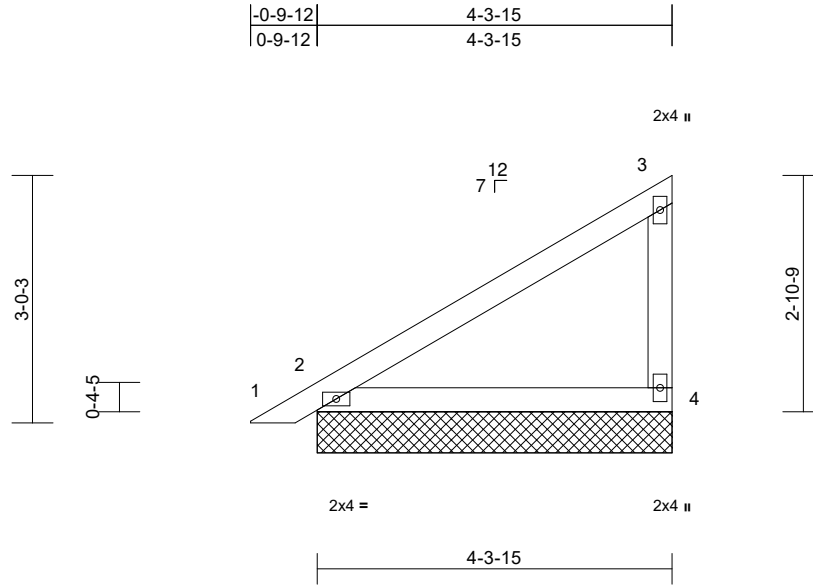
818 Soundside Road
 Edenton, NC 27932

Job 23120149	Truss PB1	Truss Type Piggyback	Qty 12	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106397
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:13
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Page: 1



Scale = 1:28.1

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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 19 lb	FT = 20%	

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied or 5-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 2=4-3-15, 4=4-3-15, 5=4-3-15
Max Horiz 2=93 (LC 13), 5=93 (LC 13)
Max Uplift 2=-24 (LC 14), 4=-38 (LC 14),
5=-24 (LC 14)
Max Grav 2=302 (LC 21), 4=245 (LC 21),
5=302 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/27, 2-3=-77/85, 3-4=-173/59
BOT CHORD 2-4=-47/79

NOTES

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

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) N/A
- 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.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



January 19, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

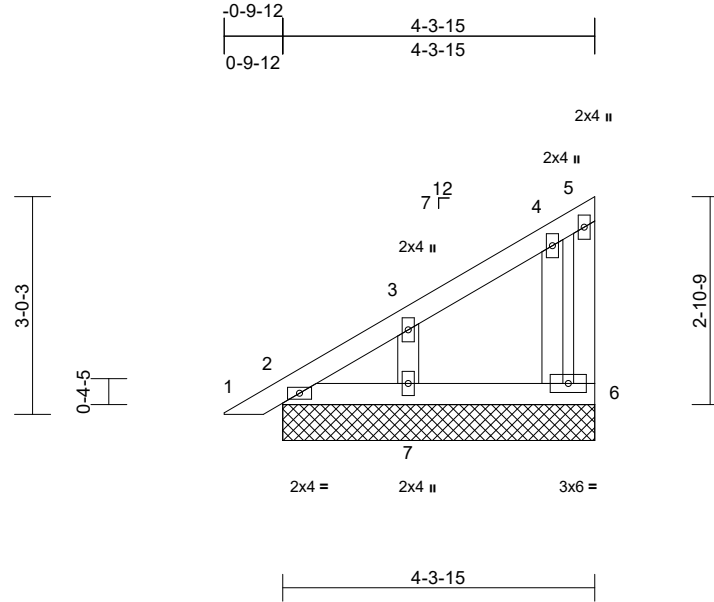
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss PB2	Truss Type Piggyback	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106398
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 23 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 5-2-1 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

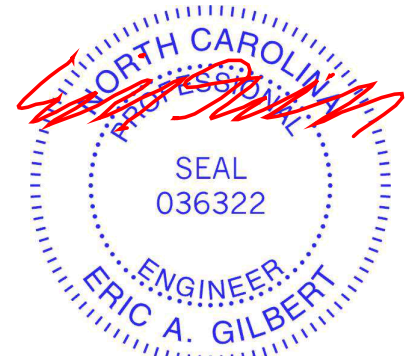
REACTIONS (size) 2=4-3-15, 6=4-3-15, 7=4-3-15, 8=4-3-15
Max Horiz 2=90 (LC 13), 8=90 (LC 13)
Max Uplift 6=-19 (LC 14), 7=-46 (LC 14)
Max Grav 2=149 (LC 21), 6=133 (LC 21), 7=246 (LC 21), 8=149 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/26, 2-3=-62/86, 3-4=-82/52, 4-5=-41/58, 5-6=-38/22
BOT CHORD 2-7=-30/48, 6-7=-30/48
WEBS 3-7=-186/100, 4-6=-139/75

- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 20.0 psf on overhangs non-concurrent with other live loads.
- Gable requires continuous bottom chord bearing.
- 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.
- N/A
- 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

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



January 19, 2024

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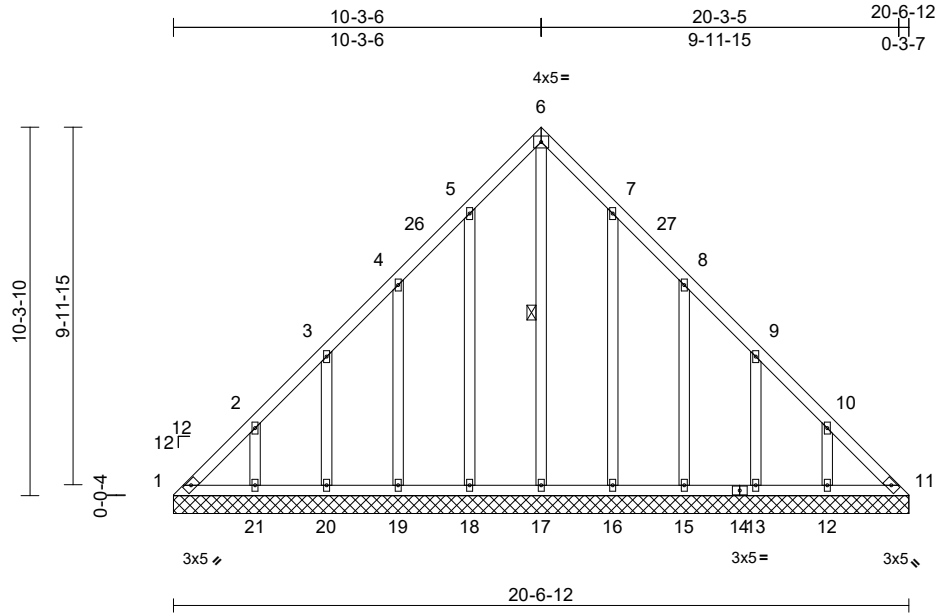
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V1	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106399
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.06	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horiz(TL)	0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 143 lb	FT = 20%

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

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

WEBS 1 Row at midpt 6-17

REACTIONS (size)
1=20-6-12, 11=20-6-12,
12=20-6-12, 13=20-6-12,
15=20-6-12, 16=20-6-12,
17=20-6-12, 18=20-6-12,
19=20-6-12, 20=20-6-12,
21=20-6-12
Max Horiz 1=230 (LC 10)
Max Uplift 1=77 (LC 12), 11=24 (LC 13),
12=68 (LC 15), 13=102 (LC 15),
15=98 (LC 15), 16=91 (LC 15),
18=93 (LC 14), 19=98 (LC 14),
20=100 (LC 14), 21=77 (LC 14)
Max Grav 1=170 (LC 14), 11=134 (LC 15),
12=198 (LC 24), 13=167 (LC 28),
15=205 (LC 21), 16=271 (LC 21),
17=222 (LC 15), 18=271 (LC 20),
19=205 (LC 20), 20=164 (LC 27),
21=209 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-280/197, 2-3=-193/158, 3-4=-127/122,
4-5=-107/135, 5-6=-121/184, 6-7=-121/167,
7-8=-92/94, 8-9=-82/62, 9-10=-153/98,
10-11=-237/133
BOT CHORD 1-21=-100/211, 20-21=-100/211,
19-20=-100/211, 18-19=-100/211,
17-18=-100/211, 16-17=-100/211,
15-16=-100/211, 13-15=-100/211,
12-13=-100/211, 11-12=-100/211

WEBS 6-17=-199/74, 5-18=-233/116,
4-19=-164/121, 3-20=-133/122,
2-21=-143/104, 7-16=-233/114,
8-15=-164/122, 9-13=-134/123,
10-12=-139/101

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; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 7-3-10, Exterior(2R) 7-3-10 to 13-3-10, Interior (1) 13-3-10 to 17-7-0, Exterior(2E) 17-7-0 to 20-7-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) All plates are 2x4 MT20 unless otherwise indicated.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.

11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 1 and 24 lb uplift at joint 11.
12) N/A

13) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
LOAD CASE(S) Standard



January 19, 2024

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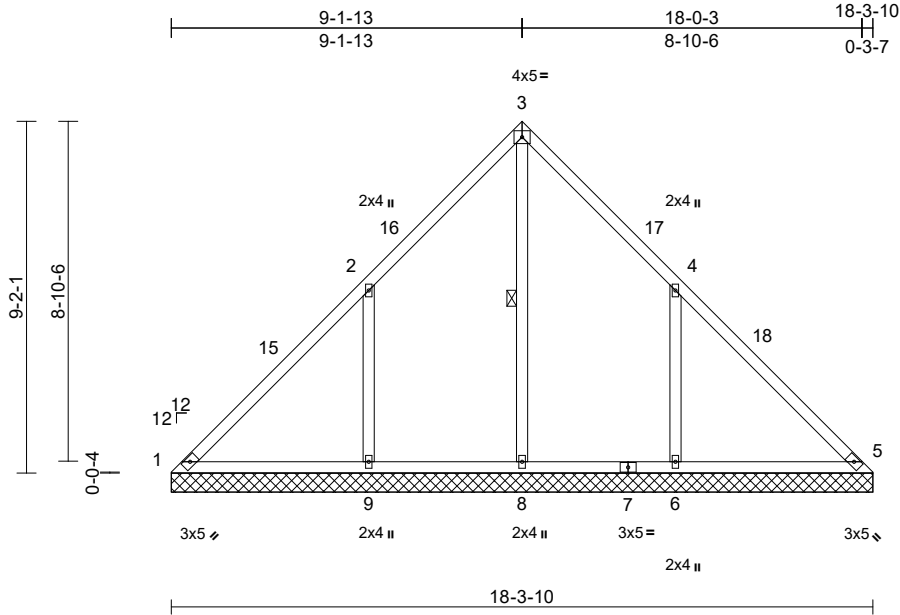
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V2	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106400
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:60.1

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	0.44	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 91 lb	FT = 20%	

LUMBER

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

BRACING

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

- WEBS 1 Row at midpt 3-8

- REACTIONS** (size)
- 1=18-3-10, 5=18-3-10, 6=18-3-10, 8=18-3-10, 9=18-3-10, 14=18-3-10
 - Max Horiz 1=210 (LC 11)
 - Max Uplift 1=-105 (LC 10), 5=-1 (LC 15), 6=-261 (LC 15), 9=-269 (LC 14), 14=-1 (LC 15)
 - Max Grav 1=123 (LC 13), 5=1 (LC 24), 6=589 (LC 24), 8=748 (LC 26), 9=595 (LC 23), 14=1 (LC 24)

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

- TOP CHORD 1-2=-164/463, 2-3=-36/378, 3-4=-29/366, 4-5=-279/347
- BOT CHORD 1-9=-196/99, 8-9=-196/99, 6-8=-196/99, 5-6=-196/99
- WEBS 3-8=-568/0, 2-9=-426/296, 4-6=-424/293

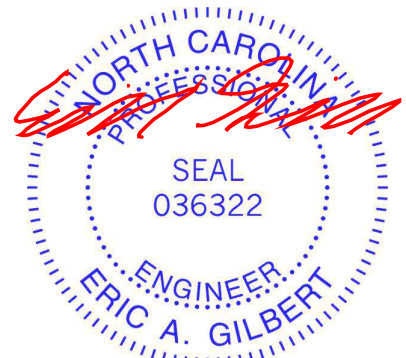
NOTES

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

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 6-2-1, Exterior(2R) 6-2-1 to 12-2-1, Interior (1) 12-2-1 to 14-11-14, Exterior(2E) 14-11-14 to 17-11-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 1, 1 lb uplift at joint 5 and 1 lb uplift at joint 5.
- 11) N/A

- 12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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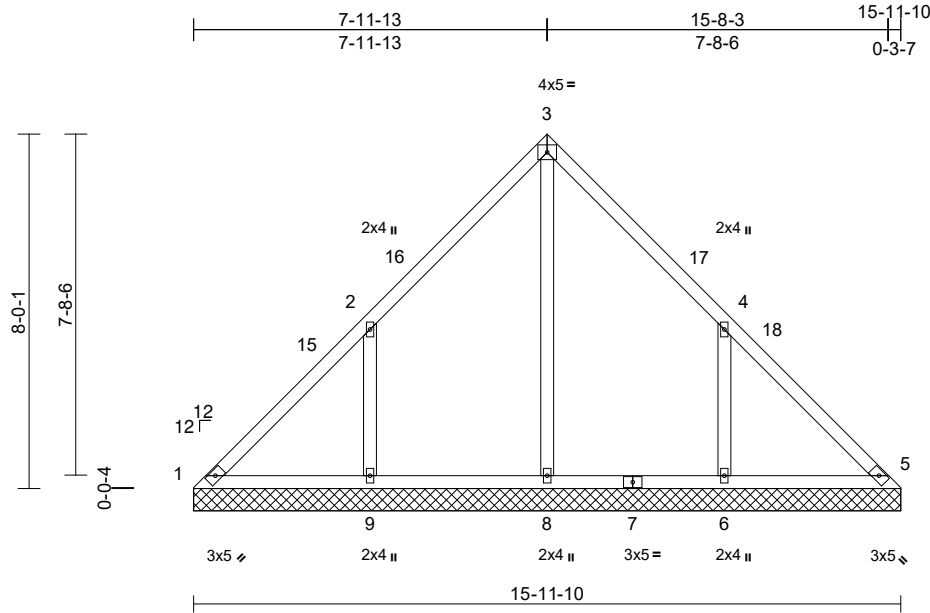
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V3	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106401
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



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	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.53	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 77 lb	FT = 20%	

LUMBER

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

BRACING

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

REACTIONS

(size) 1=15-11-10, 5=15-11-10,
6=15-11-10, 8=15-11-10,
9=15-11-10, 14=15-11-10
Max Horiz 1=183 (LC 11)
Max Uplift 1=-102 (LC 10), 6=-220 (LC 15),
9=-227 (LC 14)
Max Grav 1=121 (LC 13), 5=0 (LC 24), 6=506
(LC 6), 8=675 (LC 26), 9=504 (LC
5), 14=0 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-159/365, 2-3=-73/325, 3-4=-43/297,
4-5=-145/246

BOT CHORD 1-9=-136/72, 8-9=-136/72, 6-8=-136/72,
5-6=-136/72

WEBS 3-8=-477/0, 2-9=-393/258, 4-6=-394/256

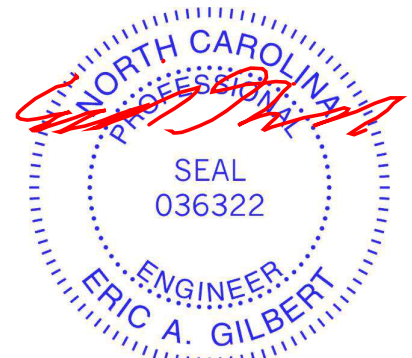
NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 5-0-1, Exterior(2R) 5-0-1 to 11-0-1, Interior (1) 11-0-1 to 12-7-14, Exterior(2E) 12-7-14 to 15-7-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 1.
- N/A

12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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

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



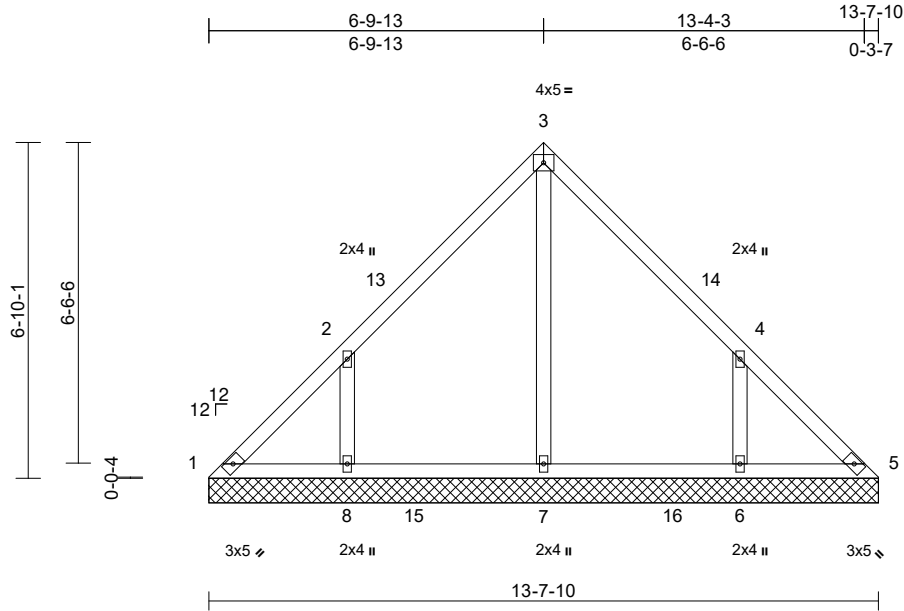
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V4	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106402
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:14
ID:vJY5oNOabHhEy4AtkZcs2qyEDbb-RfC?PsB70Hq3NSgPqnL8w3uTXbGKWrCDoi7J4zJC?f

Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 64 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=13-7-10, 5=13-7-10, 6=13-7-10, 7=13-7-10, 8=13-7-10
Max Horiz 1=-156 (LC 10)
Max Uplift 1=-41 (LC 10), 5=-5 (LC 11), 6=-187 (LC 15), 8=-191 (LC 14)
Max Grav 1=140 (LC 24), 5=113 (LC 23), 6=455 (LC 21), 7=373 (LC 23), 8=455 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-161/141, 2-3=-228/132, 3-4=-228/132, 4-5=-139/96
BOT CHORD 1-8=-61/123, 7-8=-61/121, 6-7=-61/121, 5-6=-61/121
WEBS 3-7=-189/0, 2-8=-386/239, 4-6=-386/239

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 1 and 5 lb uplift at joint 5.
- N/A

12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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

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



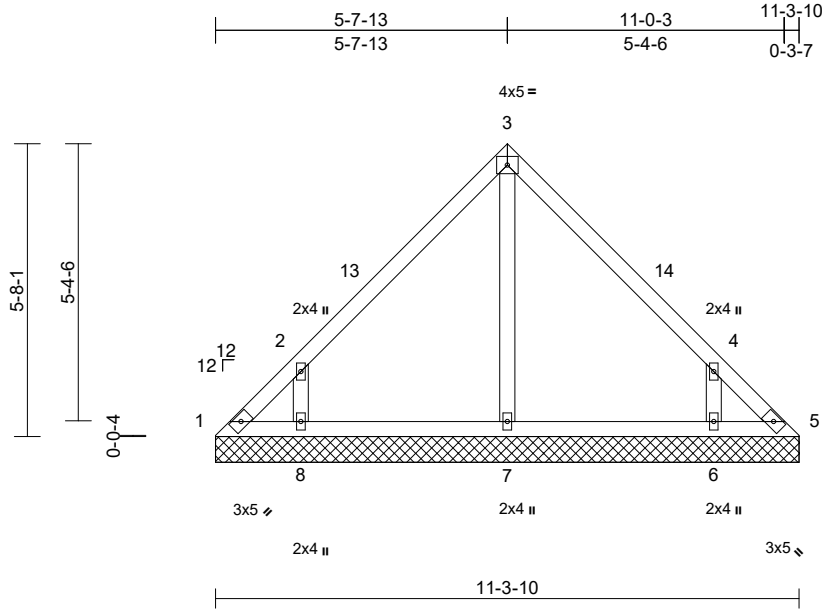
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V5	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106403
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:15
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Page: 1



Scale = 1:44.6

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	0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 50 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=11-3-10, 5=11-3-10, 6=11-3-10, 7=11-3-10, 8=11-3-10
Max Horiz 1=-128 (LC 12)
Max Uplift 1=-58 (LC 12), 5=-27 (LC 13), 6=-169 (LC 15), 8=-175 (LC 14)
Max Grav 1=98 (LC 11), 5=78 (LC 26), 6=457 (LC 21), 7=236 (LC 20), 8=457 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-167/125, 2-3=-257/131, 3-4=-257/131, 4-5=-143/90
BOT CHORD 1-8=-44/90, 7-8=-38/90, 6-7=-38/90, 5-6=-43/90
WEBS 3-7=-148/0, 2-8=-445/302, 4-6=-445/302

NOTES

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

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1 and 27 lb uplift at joint 5.
- 11) N/A

12) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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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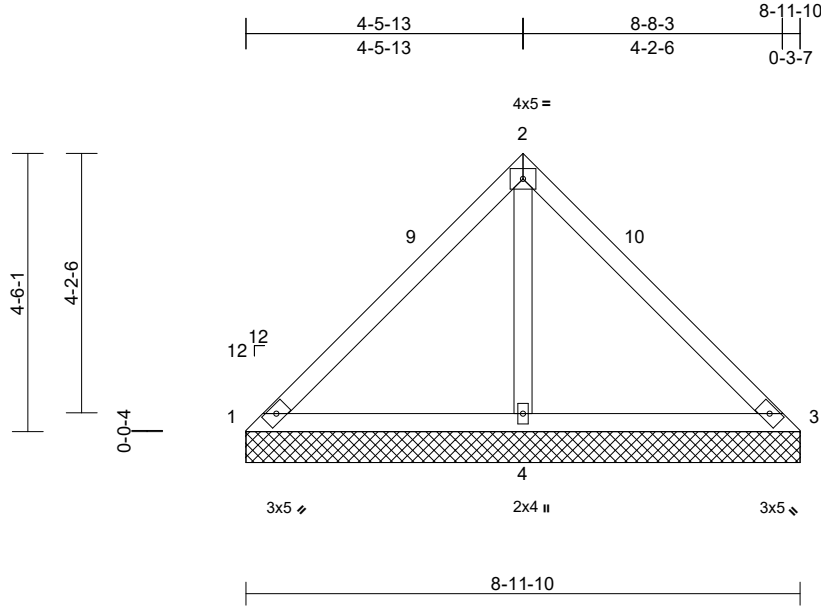
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V6	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106404
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:15
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Page: 1



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	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.44	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.20	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
											Weight: 37 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 8-11-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-11-10, 3=8-11-10, 4=8-11-10
Max Horiz 1=-101 (LC 10)
Max Uplift 1=-57 (LC 21), 3=-57 (LC 20), 4=-153 (LC 14)
Max Grav 1=83 (LC 20), 3=83 (LC 21), 4=749 (LC 21)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-163/332, 2-3=-163/332
BOT CHORD 1-4=-225/229, 3-4=-225/229
WEBS 2-4=-562/336

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 5-11-14, Exterior(2E) 5-11-14 to 8-11-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 57 lb uplift at joint 1 and 57 lb uplift at joint 3.
- N/A
- 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



January 19, 2024

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

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



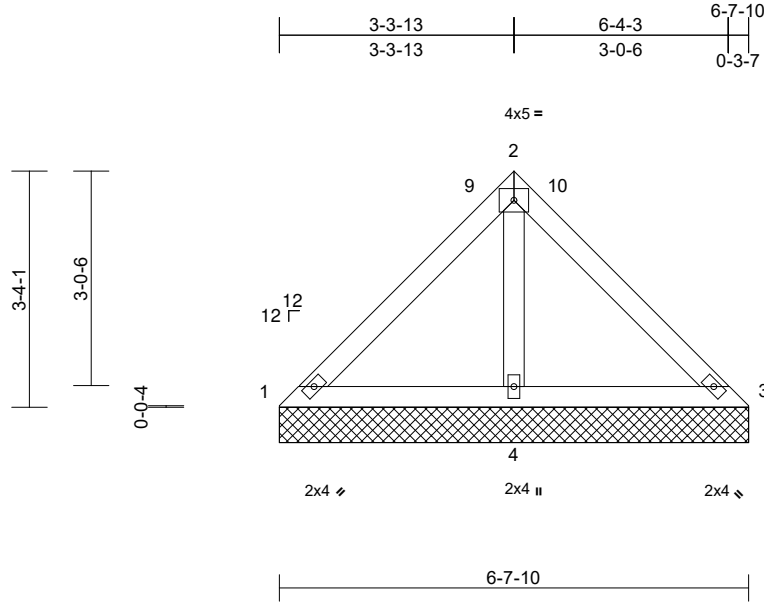
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V7	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106405
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:15
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Page: 1



Scale = 1:32.6

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.24	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 27 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 6-7-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=6-7-10, 3=6-7-10, 4=6-7-10
Max Horiz 1=74 (LC 11)
Max Uplift 1=-6 (LC 21), 3=-6 (LC 20), 4=-83 (LC 14)
Max Grav 1=109 (LC 20), 3=109 (LC 21), 4=472 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-83/186, 2-3=-83/186
BOT CHORD 1-4=-137/156, 3-4=-137/156
WEBS 2-4=-326/201

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 3-7-14, Exterior(2E) 3-7-14 to 6-7-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1 and 6 lb uplift at joint 3.
- N/A

- 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



January 19, 2024

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ENGINEERING BY
TRENCO
A MiTek Affiliate

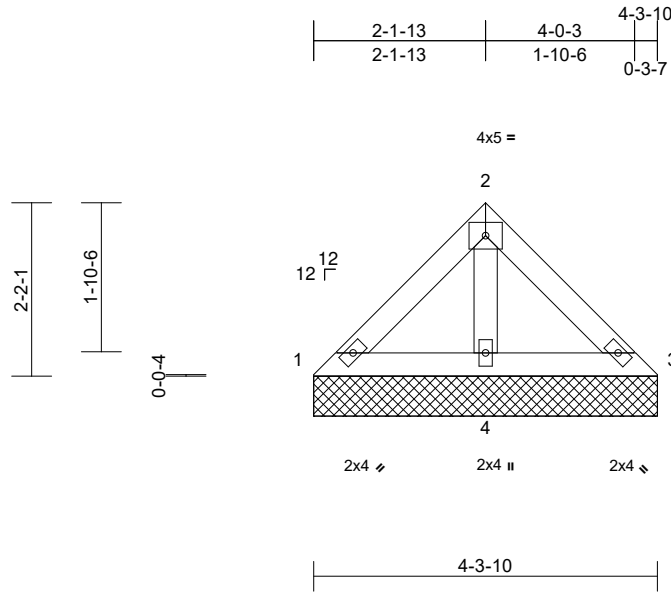
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V8	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106406
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:15
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Page: 1



Scale = 1:28.8

Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 16 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 4-3-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=4-3-10, 3=4-3-10, 4=4-3-10
Max Horiz 1=46 (LC 13)
Max Uplift 3=-3 (LC 15), 4=-35 (LC 14)
Max Grav 1=85 (LC 20), 3=85 (LC 21), 4=251 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-74/79, 2-3=-74/79
BOT CHORD 1-4=-65/90, 3-4=-65/90
WEBS 2-4=-146/86

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

LOAD CASE(S) Standard

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



January 19, 2024

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

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

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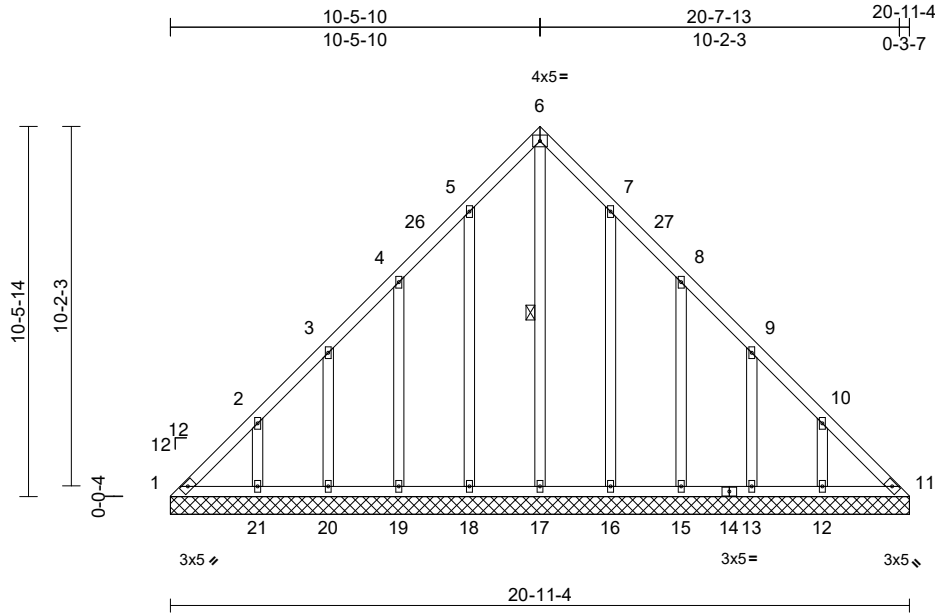
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V9	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106407
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:16
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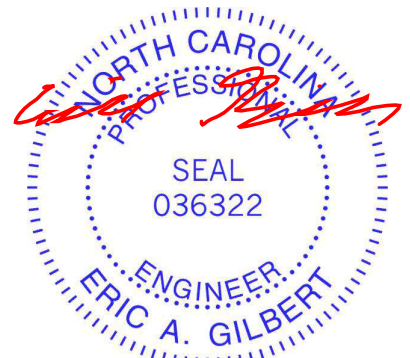


Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.10	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	0.01	11	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 147 lb	FT = 20%

LUMBER	
TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3
BRACING	
TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 6-17
REACTIONS	(size)
	1=20-11-4, 11=20-11-4, 12=20-11-4, 13=20-11-4, 15=20-11-4, 16=20-11-4, 17=20-11-4, 18=20-11-4, 19=20-11-4, 20=20-11-4, 21=20-11-4
Max Horiz	1=234 (LC 11)
Max Uplift	1=-76 (LC 12), 11=-23 (LC 13), 12=-76 (LC 15), 13=-101 (LC 15), 15=-99 (LC 15), 16=-90 (LC 15), 18=-93 (LC 14), 19=-98 (LC 14), 20=-98 (LC 14), 21=-85 (LC 14)
Max Grav	1=173 (LC 14), 11=137 (LC 26), 12=211 (LC 28), 13=163 (LC 24), 15=206 (LC 21), 16=271 (LC 21), 17=227 (LC 15), 18=271 (LC 20), 19=206 (LC 20), 20=160 (LC 23), 21=221 (LC 23)
FORCES	(lb) - Maximum Compression/Maximum Tension
TOP CHORD	1-2=-283/202, 2-3=-190/159, 3-4=-125/125, 4-5=-104/139, 5-6=-121/187, 6-7=-121/170, 7-8=-89/96, 8-9=-78/64, 9-10=-149/98, 10-11=-239/137
BOT CHORD	1-21=-104/215, 20-21=-104/215, 19-20=-104/215, 18-19=-104/215, 17-18=-104/215, 16-17=-104/215, 15-16=-104/215, 13-15=-104/215, 12-13=-104/215, 11-12=-104/215

- WEBS** 6-17=-203/73, 5-18=-233/116, 4-19=-165/122, 3-20=-131/120, 2-21=-151/111, 7-16=-233/113, 8-15=-165/123, 9-13=-132/121, 10-12=-147/107
- 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; BCCL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 7-5-14, Exterior(2R) 7-5-14 to 13-5-14, Interior (1) 13-5-14 to 17-11-8, Exterior(2E) 17-11-8 to 20-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
 - TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
 - Unbalanced snow loads have been considered for this design.
 - 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.

- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 76 lb uplift at joint 1, 23 lb uplift at joint 11, 93 lb uplift at joint 18, 98 lb uplift at joint 19, 98 lb uplift at joint 20, 85 lb uplift at joint 21, 90 lb uplift at joint 16, 99 lb uplift at joint 15, 101 lb uplift at joint 13 and 76 lb uplift at joint 12.
 - This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- LOAD CASE(S)** Standard



January 19, 2024

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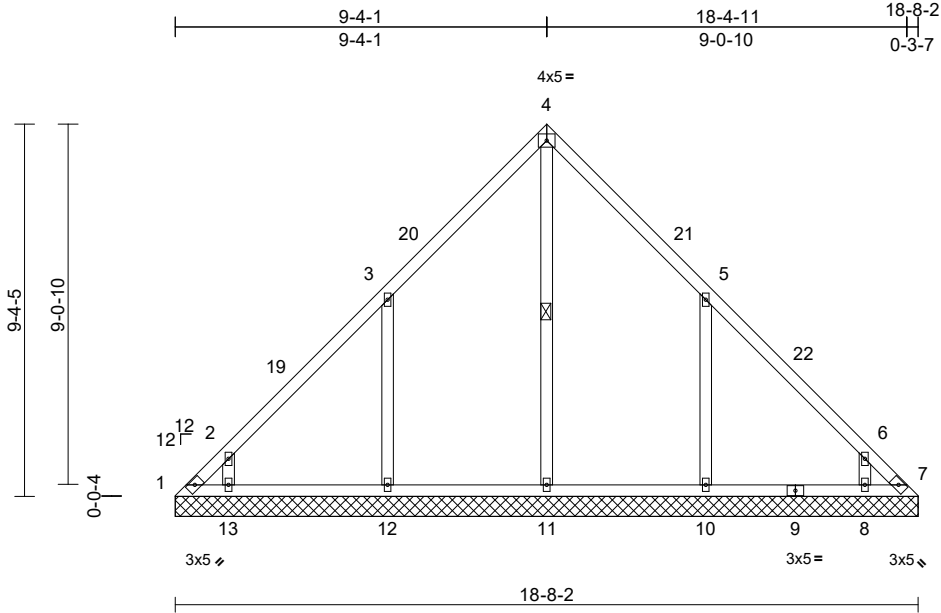
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V10	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106408
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 95 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-11

REACTIONS (size)
1=18-8-2, 7=18-8-2, 8=18-8-2, 10=18-8-2, 11=18-8-2, 12=18-8-2, 13=18-8-2, 18=18-8-2
Max Horiz 1=215 (LC 11)
Max Uplift 1=-147 (LC 12), 7=-1 (LC 15), 8=-32 (LC 15), 10=-255 (LC 15), 11=-33 (LC 13), 12=-224 (LC 14), 13=-126 (LC 14), 18=-1 (LC 15)
Max Grav 1=173 (LC 11), 7=0 (LC 13), 8=289 (LC 24), 10=498 (LC 24), 11=483 (LC 26), 12=487 (LC 5), 13=326 (LC 23), 18=0 (LC 13)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-284/250, 2-3=-272/219, 3-4=-233/314, 4-5=-222/281, 5-6=-137/64, 6-7=-126/56
BOT CHORD 1-13=-59/91, 12-13=-24/80, 11-12=-24/80, 10-11=-24/80, 8-10=-24/80, 7-8=-24/80
WEBS 4-11=-339/122, 3-12=-389/270, 2-13=-240/221, 5-10=-387/282, 6-8=-228/189

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) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 6-4-5, Exterior(2R) 6-4-5 to 12-4-5, Interior (1) 12-4-5 to 15-4-6, Exterior(2E) 15-4-6 to 18-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 147 lb uplift at joint 1, 1 lb uplift at joint 7, 33 lb uplift at joint 11, 224 lb uplift at joint 12, 126 lb uplift at joint 13, 255 lb uplift at joint 10, 32 lb uplift at joint 8 and 1 lb uplift at joint 7.
- 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



January 19, 2024

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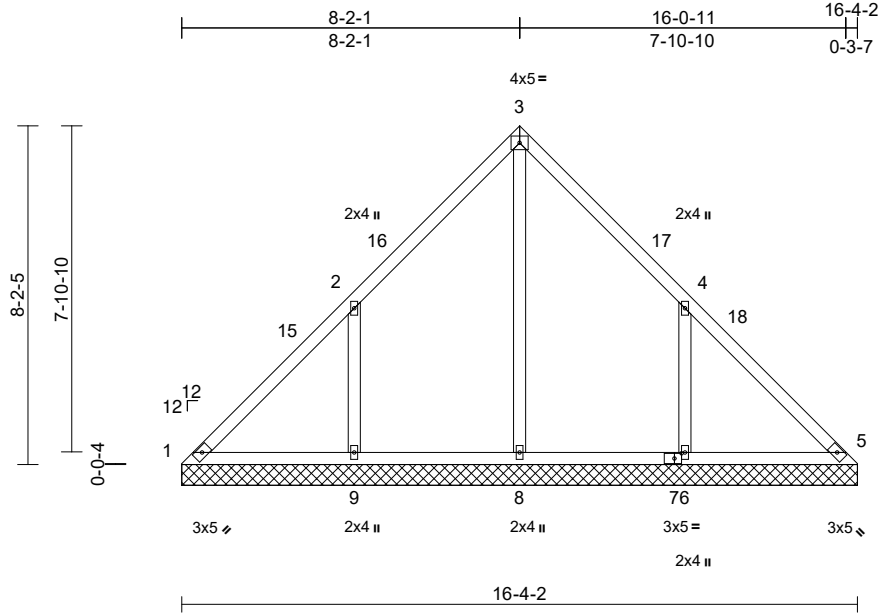
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V11	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	I63106409
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:16
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Page: 1



Scale = 1:55.7

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

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	0.38	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0										Weight: 79 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=16-4-2, 5=16-4-2, 6=16-4-2, 8=16-4-2, 9=16-4-2, 14=16-4-2
Max Horiz 1=187 (LC 11)
Max Uplift 1=-102 (LC 10), 5=-1 (LC 15), 6=-226 (LC 15), 9=-233 (LC 14), 14=-1 (LC 15)
Max Grav 1=122 (LC 13), 5=1 (LC 24), 6=513 (LC 24), 8=688 (LC 26), 9=517 (LC 23), 14=1 (LC 24)

FORCES

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-158/381, 2-3=-66/336, 3-4=-39/309, 4-5=-165/262
BOT CHORD 1-9=-146/77, 8-9=-146/77, 6-8=-146/77, 5-6=-146/77
WEBS 3-8=-492/0, 2-9=-397/264, 4-6=-398/261

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) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Interior (1) 3-0-4 to 5-2-5, Exterior(2R) 5-2-5 to 11-2-5, Interior (1) 11-2-5 to 13-0-6, Exterior(2E) 13-0-6 to 16-0-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 102 lb uplift at joint 1, 1 lb uplift at joint 5, 233 lb uplift at joint 9, 226 lb uplift at joint 6 and 1 lb uplift at joint 5.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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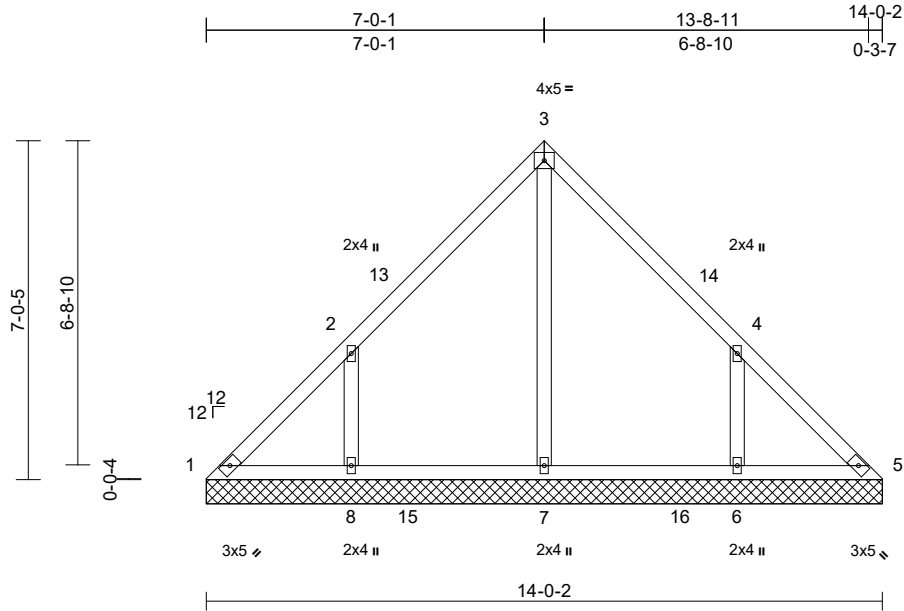
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V12	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106410
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Loading	(psf)	Spacing	2-0-0	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
											Weight: 66 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS

(size) 1=14-0-2, 5=14-0-2, 6=14-0-2, 7=14-0-2, 8=14-0-2
Max Horiz 1=-160 (LC 10)
Max Uplift 1=-40 (LC 10), 5=-3 (LC 11), 6=-191 (LC 15), 8=-196 (LC 14)
Max Grav 1=143 (LC 28), 5=116 (LC 27), 6=460 (LC 21), 7=385 (LC 23), 8=460 (LC 20)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-164/148, 2-3=-221/131, 3-4=-221/131, 4-5=-142/105
BOT CHORD 1-8=-66/128, 7-8=-66/127, 6-7=-66/127, 5-6=-66/127
WEBS 3-7=-198/0, 2-8=-385/237, 4-6=-385/235

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-5, Interior (1) 3-0-5 to 4-0-5, Exterior(2R) 4-0-5 to 10-0-5, Interior (1) 10-0-5 to 11-0-5, Exterior(2E) 11-0-5 to 14-0-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 1, 3 lb uplift at joint 5, 196 lb uplift at joint 8 and 191 lb uplift at joint 6.
- 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



January 19,2024

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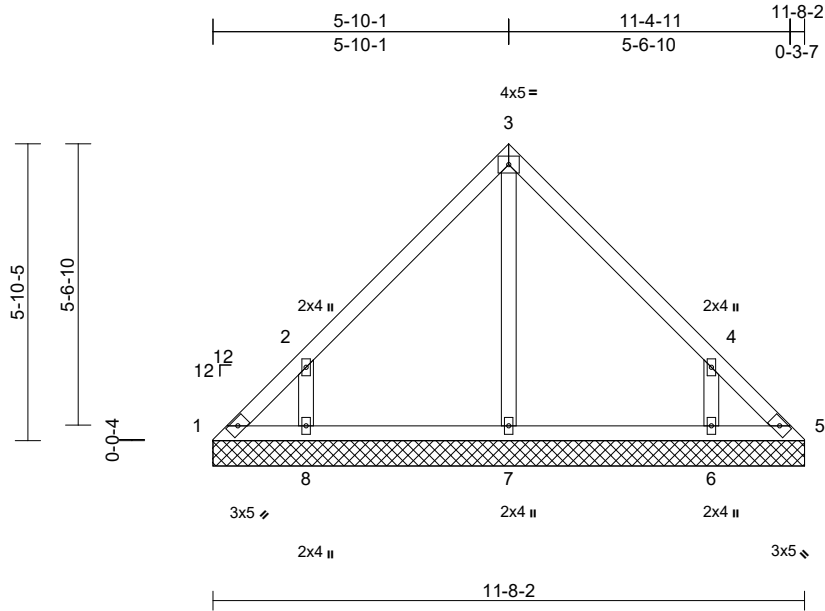
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V13	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106411
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Carter Components (Sanford, NC), Sanford, NC - 27332,

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:17
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Page: 1



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)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 52 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=11-8-2, 5=11-8-2, 6=11-8-2, 7=11-8-2, 8=11-8-2
Max Horiz	1=-133 (LC 10)
Max Uplift	1=-50 (LC 12), 5=-18 (LC 13), 6=-170 (LC 15), 8=-175 (LC 14)
Max Grav	1=105 (LC 24), 5=85 (LC 26), 6=450 (LC 21), 7=240 (LC 20), 8=450 (LC 20)
FORCES (lb) - Maximum Compression/Maximum Tension	
TOP CHORD	1-2=-159/124, 2-3=-254/117, 3-4=-254/103, 4-5=-134/87
BOT CHORD	1-8=-45/94, 7-8=-41/94, 6-7=-41/94, 5-6=-41/94
WEBS	3-7=-152/0, 2-8=-424/244, 4-6=-424/242

- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 50 lb uplift at joint 1, 18 lb uplift at joint 5, 175 lb uplift at joint 8 and 170 lb uplift at joint 6.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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



January 19, 2024

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

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

ENGINEERING BY
TRENCO
A MiTek Affiliate

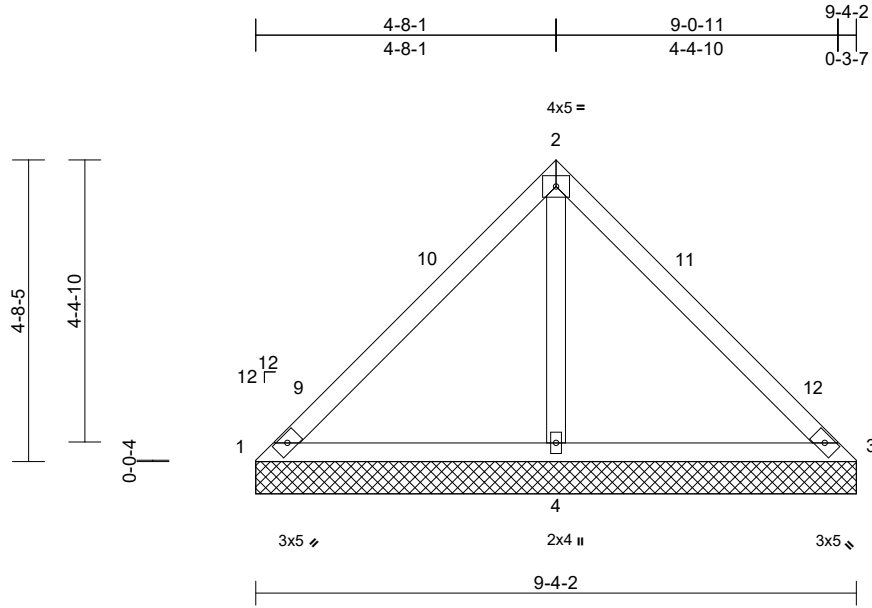
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V14	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106412
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



Scale = 1:35.8

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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.42	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MSH								
BCDL	10.0											
										Weight: 38 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 9-4-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS

(size) 1=9-4-2, 3=9-4-2, 4=9-4-2
Max Horiz 1=-105 (LC 12)
Max Uplift 1=-36 (LC 21), 3=-36 (LC 20),
4=-135 (LC 14)
Max Grav 1=100 (LC 20), 3=100 (LC 21),
4=733 (LC 21)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-137/339, 2-3=-137/339
BOT CHORD 1-4=-195/193, 3-4=-195/193
WEBS 2-4=-557/314

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 6-4-6, Exterior(2E) 6-4-6 to 9-4-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.

- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 4-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 1, 36 lb uplift at joint 3 and 135 lb uplift at joint 4.
- 11) This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard



January 19, 2024

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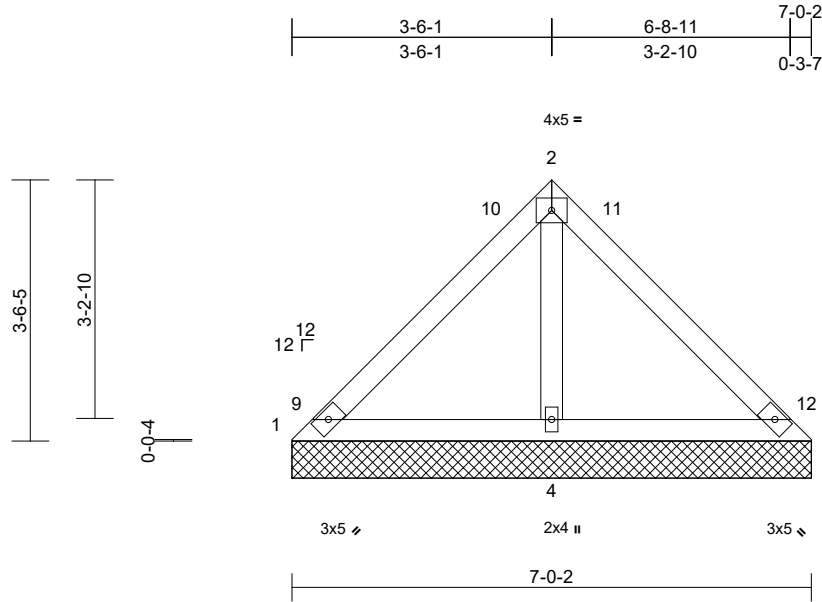
818 Soundside Road
Edenton, NC 27932

Job 23120149	Truss V15	Truss Type Valley	Qty 1	Ply 1	DRB GROUP - 86 FaNC Job Reference (optional)	163106413
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Carter Components (Sanford, NC), Sanford, NC - 27332,

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Page: 1



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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.26	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0											
										Weight: 28 lb	FT = 20%	

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-0-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-0-2, 3=7-0-2, 4=7-0-2
Max Horiz 1=-78 (LC 10)
Max Uplift 1=-12 (LC 21), 3=-12 (LC 20), 4=-92 (LC 14)
Max Grav 1=98 (LC 20), 3=98 (LC 21), 4=511 (LC 21)

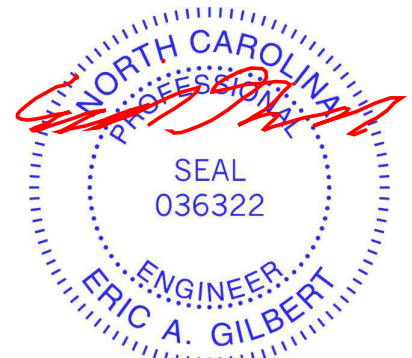
FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-94/206, 2-3=-94/206
BOT CHORD 1-4=-150/167, 3-4=-150/167
WEBS 2-4=-359/222

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 12 lb uplift at joint 3 and 92 lb uplift at joint 4.
- This truss is designed in accordance with the 2018 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 3-0-4, Exterior(2R) 3-0-4 to 4-0-6, Exterior(2E) 4-0-6 to 7-0-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.



January 19, 2024

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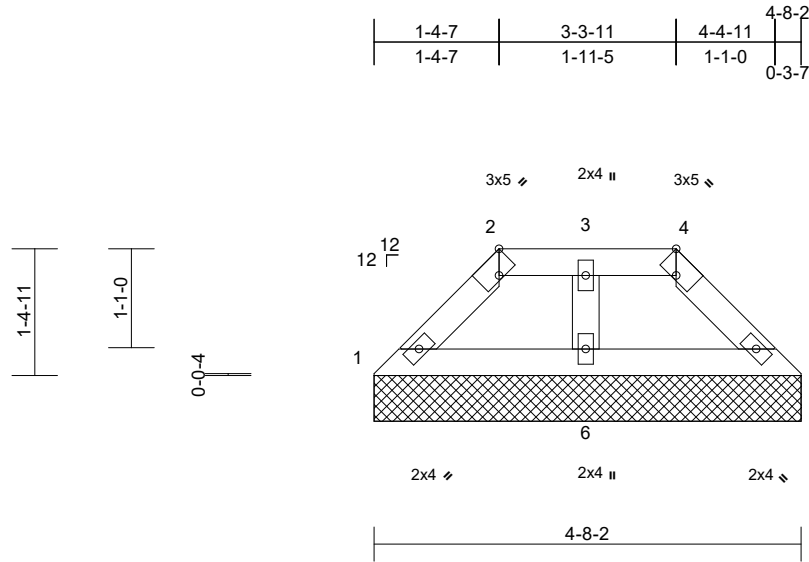
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DRB GROUP - 86 FaNC	163106414
23120149	V16	Valley	1	1	Job Reference (optional)	

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

Run: 8.63 S Nov 1 2023 Print: 8.630 S Nov 1 2023 MiTek Industries, Inc. Wed Jan 17 18:37:18
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Page: 1



Scale = 1:25.2

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

Loading	(psf)	Spacing	1-11-4	CSI	DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP	
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf)	20.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2018/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 16 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 4-8-2 oc purlins, except 2-0-0 oc purlins: 2-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS

(size) 1=4-8-2, 5=4-8-2, 6=4-8-2
Max Horiz 1=-28 (LC 10)
Max Uplift 1=-12 (LC 14), 5=-15 (LC 15), 6=-11 (LC 14)
Max Grav 1=123 (LC 38), 5=124 (LC 38), 6=211 (LC 37)

FORCES

(lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-136/50, 2-3=-47/59, 3-4=-47/59, 4-5=-137/51
BOT CHORD 1-6=-23/90, 5-6=-24/91
WEBS 3-6=-140/87

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior(2E) 0-0-4 to 1-4-11, Exterior(2R) 1-4-11 to 3-3-15, Exterior(2E) 3-3-15 to 4-8-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pf=20.0 psf (Lum DOL=1.15 Plate DOL=1.15); Is=1.0; Rough Cat B; Fully Exp.; Ce=0.9; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Provide adequate drainage to prevent water ponding.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 12 lb uplift at joint 1, 15 lb uplift at joint 5 and 11 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.
- 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



January 19, 2024

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

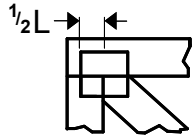
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



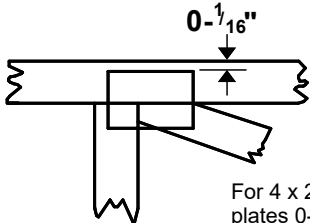
818 Soundside Road
Edenton, NC 27932

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- 1/16" from outside edge of truss.



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

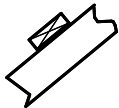
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

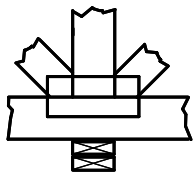
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

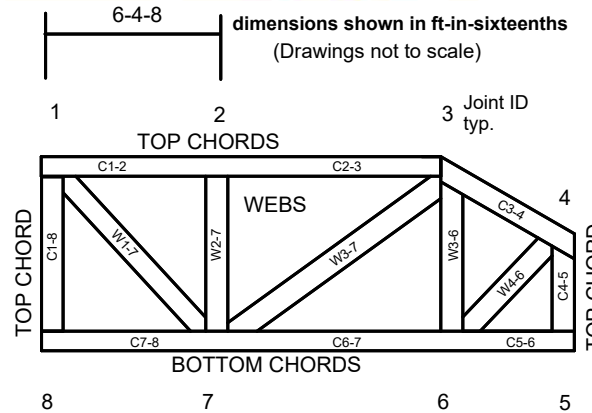


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

- ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
- DSB-22: Design Standard for Bracing.
- BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

Product Code Approvals

ICC-ES Reports:

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

Design General Notes

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

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

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ENGINEERING BY
TRENCO
A MiTek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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